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# Special Libraries, January 1967

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JANUARY 1967  
VOLUME 58, NUMBER 1

Dear John: Come and Expect Redundancy!	21	Erik Bromberg
Quick Look at Courses on Special Libraries	22	Erik Bromberg
SLA Chapters and Continuing Education	24	Margaret N. Sloane
Continuing Education: Formal and Informal	27	Richard A. Davis
Administration Training in Graduate Library Schools	30	Russell Shank
What We Should Teach Special Librarians	33	Alan M. Rees
Special Libraries Instruction: The Separate Course	37	Martha Jane K. Zachert
Documentation and Information Science in the Core Library School Curriculum	40	Raynard C. Swank
The Interfaces Between Librarianship and Information Science and Engineering	45	Robert S. Taylor

## Special Libraries Association

To the Beginners Belong the NLW Spoils	49	Sylvia Allbritton
Convention Call	50	James Humphry III
SLA Staff Appointments	52	
Rio Grande's H. W. Wilson Company Chapter Award Entry 1966	52	

## Features

LTP Reports to SLA	48	Gladys T. Piez
This Works for Us: Photocopying for Routing Slips	54	Ruth S. Smith
Have You Heard	55	
Letter to the Editor	56	
Off the Press	57	

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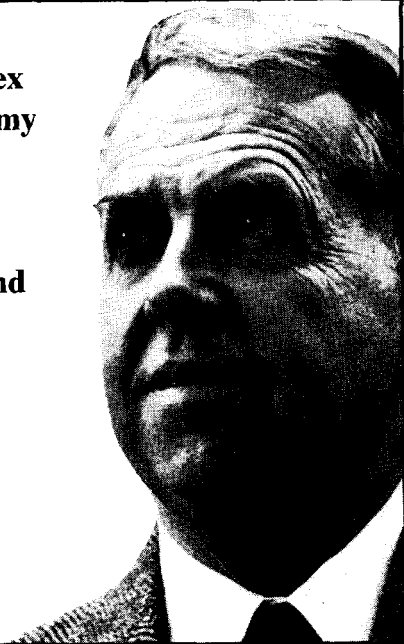
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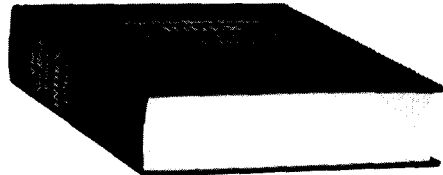
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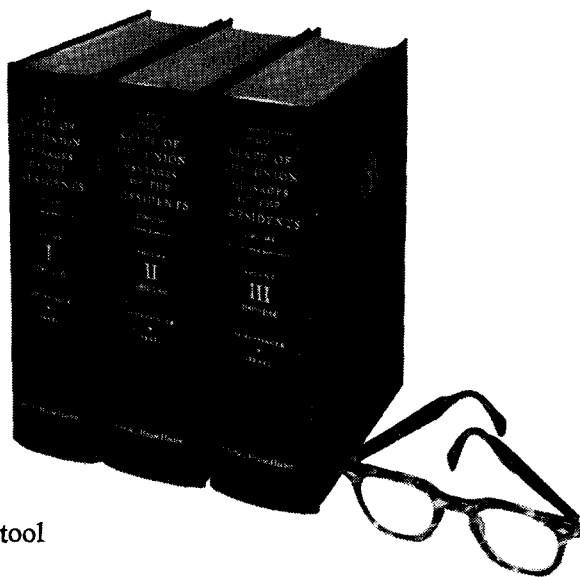
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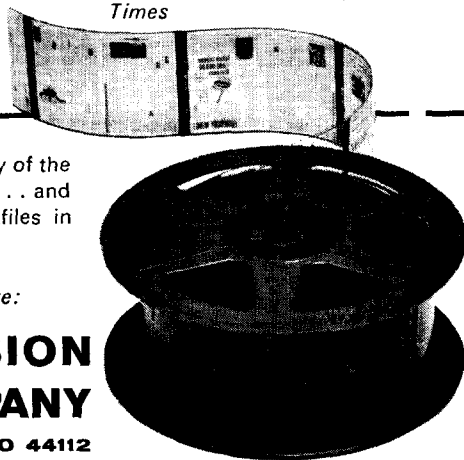
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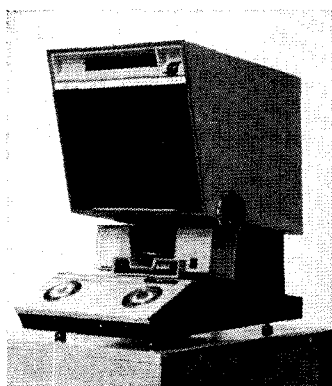
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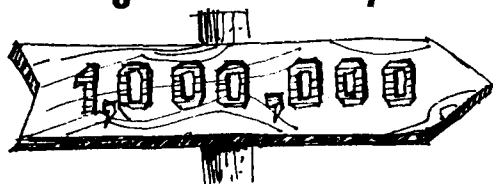


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*Dear John:*

## **Come and Expect Redundancy!**

OUR FRIEND John Berry of *Library Journal* has remarked that I had forewarned him of the redundancy to come in the papers and discussion at the Second Forum on Education for Special Librarianship at Minneapolis on June 3. Indeed I did. And I advised him further that the concept of redundancy is entirely subjective. While he personally had heard before much of what was to transpire, most of our audience had not. Further, this was a new group of participants, i.e., working special librarians and library school staffs. This Forum, then, was only an extension of the express intention of the Special Libraries Association to enter into discussion with the library schools. The Minneapolis discussion, which was quite freewheeling, presented the views of all sides on the panel topics: Continuing Education for Special Librarians and the Course Content of the Special Library Course. Unfortunately we cannot pass on to you the floor discussion but we are presenting the panel papers in the pages to follow.

It should be readily apparent that no library school can speak for all library schools in expressing its philosophy. Similarly, no single special librarian can express the objectives of all special librarians. In my view, the special librarian in a competitive, commercial, or industrial enterprise is distinct from other librarians only in his response to the demand that he deliver services differing in range and depth from the professional in the usual college or public library. But this is my view. Should the director of X library school express his opposition to orienting all library school students in basic computer technology and applications, that is his opinion. The point, of course, is that all differing opinions should and must be voiced and debated among special librarians and library schools. What better place than in an open meeting at our Convention.

It is interesting to note that there is some kind of precedent for our efforts. "On June 18, 1944, the Training and Professional Activities Committee of SLA, under the chairmanship of Ruth S. Leonard, sponsored a meeting of library school administrators and teachers during the SLA Conference to discuss problems concerned with courses in preparation for special library positions. Seventeen were present, with the following library schools represented: Drexel, Columbia, New Jersey College for Women, Western Reserve University, University of North Carolina, University of Southern California, and Simmons." (*SLA Archives*.) In Minneapolis we had an audience of some 150 with perhaps two-thirds of the library schools and all but one or two of the SLA Chapters represented.

On Sunday, May 28, 1967, the Education Committee will present the Third Forum at the New York Convention. We intend to discuss the library technician problem and to present several views on foundations for education and librarianship and information sciences.

It should be interesting, so come on back, John!

ERIK BROMBERG, *Chairman*  
SLA Education Committee



There exists little available data and less agreement among library schools on the course content of a course entitled Special Libraries. With some variations, in general the schools emphasize definitions, history of special libraries, and where they can be found. Most courses include library planning and physical features and an introduction to "special materials" and "special methods." One common denominator is wide use of guest lecturers and field trips to special libraries.

## Quick Look at Courses on Special Libraries

ERIK BROMBERG

LAST YEAR I sent appeals to all ALA accredited and other library schools whose catalog indicated a course in Special Libraries asking them to permit me to examine their syllabi or course outlines.\* All schools save one Western one responded with course outlines ranging from twenty words to multipage syllabi. Two schools reported they merely followed two texts each, naming four totally different texts.

But my difficulties really set in when I began to examine the material in detail. No significant conclusions could be drawn, not only because of the great areas of differences, but because many course outlines revealed little. One instructor commented wisely in an accompanying letter, "No course outline has meaning without the interpretation by the instructor." Several instructors indicated that the course was significantly altered to fit the students or events in the local situation. Said one, going even further, "No one outline from a given school shows the evaluation through which it has grown or the potential toward which it is moving. Therefore, the total picture appears static whereas, I am morally certain, it is actually a situation in constant flux. My own course changes (improves, I hope) each time I give it."

Naturally, divergence in opinion as to

what should be taught was accompanied by disagreement as to where the emphasis should be placed, how to present the material, and whether or not to consider the course a kind of miniature full library school curriculum—a one-shot affair where one received everything necessary about readers' services, cataloging, serials, acquisitions, administration, book selection, and so on. One school entitled its course Special Libraries and taught only Technical Libraries. Another school solved this problem ingeniously. It in effect broke the course into two alternatives—the student may either take Special Libraries (non-technical) to cover interests in the area of the arts and humanities or take Special Libraries: Medical and Technical. The courses are identical in outline but approached differently.

### What Is Emphasized

Let us sift through the maze to try to find out just what most library schools want to emphasize.

First, definitions. Most courses try to distinguish a special library from other types of libraries. Some did this in a few brief sentences, others at length, others went on to consider comparisons of the special librarian with the documentalist and information scientist. Some library schools took the opportunity at this point to portray the special nature of the personality of the special librarian; others waited until much later to develop this theme.

Again, most courses developed the history of special libraries. This again was treated in cursory fashion by some, while one school presented a scholarly, well-researched and

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\* It is recognized that studying outlines *in vacuo*, that is, divorced from the entire curricula of which they are a part, has definite dangers. Further, the philosophic tenor of a course is not indicated by a syllabus. The theme of my course, for instance, is that, while in practice public and college librarianship (like education in general) is a very valuable manifestation of welfare statism, industrial librarianship in a competitive world is exemplary of capitalism and has to be practiced in that manner.

documented analysis which dwelt at length on eighteenth- and nineteenth-century beginnings. In connection with this subject nearly all courses presented a history of SLA.

Many courses devoted considerable time to a discussion of just where special libraries may be found. In fact, one school diverged completely from all other schools and after the introductory lecture devoted the entire course to this theme. It went into business libraries, foundation libraries, medical school libraries, and so forth. Presumably some discussion of methodology were included.

The topic of library planning and physical features was fairly common in the course outlines. There was considerable variance in emphasis here. Some courses made as a most significant part of their work the problem of establishing the new special library. Several employed the case method in this connection, with many term reports based on it.

"Special materials" was generally presented somewhere in the course. By this I mean that some treatment was given to patents, standards, trade catalogs, clippings, filmstrips, engineering drawings, report literature, and the like. The treatment usually entailed a description of the material and discussion of its value, methods of acquisition, and methods of handling. This latter point, which might be entitled special methods, was frequently a significant part of the course. Again, what was covered here varied considerably, but generally the unconventional methods of processing material for later retrieval was discussed. Consideration of machine methods varied greatly from virtually no mention to heavy emphasis.

Finally some discussion was devoted to



*Mr. Bromberg, Chairman of the SLA Education Committee, was Librarian of the U.S. Department of the Interior Bonneville Power Administration, Portland, Oregon. On January 1, he assumed*

*the post of Librarian of the USDI Central Library in Washington, D. C. His paper was prepared for distribution at the Second Forum on Education for Special Librarianship, SLA Convention, Minneapolis, Minnesota, June 3, 1966.*

services to the user, covering such points as abstracting, translating, periodical routing, literature searches, accession lists, and the like. This point generally occupied a respectable position in a majority of course outlines.

Three other topics were frequently listed. One was library personnel—and the discussion apparently was very similar to that in a standard administration course. A second was budget and the third was public relations. From personal discussions, I have learned that most instructors seem to be aware of the crucial importance of this latter point and invariably bring it to the attention of their classes.

#### Four Unusual Lectures

There were four unusual lectures worthy of mention in this brief account. One school opened its course with a full lecture on the status today of research and its prospects in the future:

1. Research today, its growth and support, including implications for libraries.
2. Federal government and its support and concern with research and development.
3. Industry and its relation to the large research universities.
4. Large amount of research and development locally.
5. Statistical view of the increase in the production of scientific and technical information in all forms.

The Weinberg report is required reading.

A second area, not too frequently treated, is stated by one school as follows: "Relationships with other libraries and the obligations to contribute to the profession and to the total information problem. Elements in librarians' status. Ethics and standards."

A third school devoted a substantial part of the course to a discussion of the economic future of special librarianship, including current employment, growth potentials, student enrollment, industry prospects—now and in the future—and the role of automation.

A fourth library school treated in depth the unusual topic of nonprofessional personnel of special libraries.

The common denominator for all the courses may be that all schools employed either guest lecturers or visits to existing special libraries, or both.

The primary responsibility for continuing education should be with the Chapters. This can be accomplished through workshops and seminars co-sponsored, if desirable, with the local library schools in the area. The Chapters are more flexible and are not constrained by funding and allocations as are government agencies, academic institutions, SLA Headquarters, and others. The practical workshop concerned with current problems is extremely beneficial.

# SLA Chapters and Continuing Education

MARGARET N. SLOANE

RECENTLY a cartoon appeared in a local Los Angeles newspaper. It showed a Boy Scout troop on a field trip. The scout master was instructing the troop in the techniques of survival in the woods: fire making, rope tying, and the like. One of the Scouts was asking: "In this age of automation, electronics, and space-age stuff, what are we doing rubbing sticks together and learning about knots?"

The cartoon points up one of the reasons why special librarians need continuing education. Not only do they need to know how to rub sticks together to make a fire and how to tie a good, secure knot in case they get lost in the forest of library techniques and must rely on basic things learned in the past, but they must also keep continually abreast of new developments—of automation and electronics and all that space-age stuff.

The question, though, poses itself: Why can't the library schools help librarians keep abreast of the space-age stuff, the new developments in all fields of special librarianship? In some instances the library schools

are helping, but the number of schools which aren't is all too great. Too many recent graduates straight from library school must begin their "continuing education" immediately they are employed if they are to perform even some of the basic tasks connected with special librarianship, graduates who "took a course in special libraries" oriented toward what they thought was a technical library associated with the aerospace industry and who don't even know what a classified document is, who have never heard of NASA, DoD, or AEC. These are elements to which they should at least have been exposed in the course they took in special libraries.

Every library school should today include a required course that at least introduces the student to the world of microminiaturization and automated indexing and retrieval systems. This world of automation isn't coming; it is here already and greatly affects special libraries. Sooner or later it will affect even the smallest school library as well.

## 'Satable Curiosity

It is surprising to encounter the intensity with which some leading librarians resist new developments and techniques such as microfiche and automation, not with an inquiring resistance, but with the kind of resistance that is dangerous because it stems from an inflexibility of mind which can be cured only by a lifelong case of "'satable curiosity," as in Rudyard Kipling's story "The Elephant's Child." The Elephant's Child suffered from 'satable curiosity, and that means he asked ever so many questions.



J. Edmund Watson  
Los Angeles/Whittier  
*Mrs. Sloane is Manager of the Technical Information Center of TRW Systems, Redondo Beach, California. Her paper was originally presented at the Second Forum on Education for Special Librarianship, SLA Annual Convention, Minneapolis, Minnesota, on June 3, 1966.*

This most desirable affliction of 'satiable curiosity is perhaps why some SLA Chapters are doing something about continuing education for special librarianship to make themselves more valuable to their profession.

But what is continuing education for special librarianship? Note that this is not "continuing professional education." There is a difference. Samuel Rothstein discusses continuing professional education in his article, "Nobody's Baby," that appeared in *Library Journal* for March 15, 1965. He says that someone must adopt "this continuing professional education baby" and his candidate is the American Library Association or, within Canada, the Canadian Library Association. I am not talking about this concept, nor am I talking about the concept expressed recently at one of the Southern California Chapter meetings when the deans of the local library schools spoke on "continuing professional education." The contribution of each of the deans was, as would be expected, slanted toward what the universities can offer in the area of "continuing professional education for librarianship." Another speaker, Henry Drennan (who is coordinator of Public Library Services, U. S. Office of Education) did, however, stress the need to learn new skills and techniques to continue education in the profession.

It is, rather, Mr. Drennan's concept, and not that expressed by the deans of the library schools, that I wish to pursue—the concept of new skills and techniques and how to develop them.

I am a great believer in the practical workshop—all day or longer, not a few hours at night when all participants are tired from the day's work, conducted by those persons who share an interest or problem, not by a guest "expert" in the field, who comes from a distance, who has little practical knowledge of the immediate problems, who comes with a preconceived "speech." I mean workshops conducted by the librarians and information specialists who have new ideas and new techniques to share with others.

I do not mean that an expert in the field cannot help. Certainly the new technology of automated storage and retrieval should not be learned by trial and error, and experts in the field must be contacted. If guest experts are needed they should be people like Dr.

Robert Hayes of UCLA, people who know the practical problems librarians face, not someone who delivers a speech which is nothing but a rehash of articles in print.

### The Down-to-Earth

These workshops must deal with down-to-earth problems that face librarians now; new techniques being developed which can be of help, with the hope that if the problems aren't solved, if the new techniques cannot be immediately applied, at least guide lines will be forthcoming from the meetings.

The sharing of experiences, the how-did-you-handle-this-problem sort of workshop, should be informal, but it is known that informal meetings, if they are to be successful, take more planning and guidance than any other kind.

There must be direction, there must be a purpose, in these meetings. And all this can better be effected on a working day—on company time, as it were—than in evening meetings.

Special librarians must demonstrate to their managements that part of the job is "continuing education for special librarianship," demonstrate by improved techniques and growth that the time spent in this endeavor is as important as the time spent in the routines of the job.

Regional workshops, instead of being confined to a small geographical area, are also most beneficial. They have the advantage of diversification, bringing together people from a larger geographical area than most Chapters encompass.

### It Costs Money

Continuing education for special librarianship costs money, whether it be small, informal workshops for a few hours a day, or a series of courses such as those sponsored by the Medical Library Association in its continuing education program.

Yes, it costs money. A most disturbing notice appeared in the California Library Association *Newsletter* of August, 1965: "Continuing Education Program to Be Terminated." The news story said in part:

As this CLA Newsletter went to press word was received that the University Extension program in Continuing Education for Librar-

ianship will be terminated at the end of this month. A legislative cut in the appropriation for University Extension resulted in the decision to abolish deficit programs. The Continuing Education in Librarianship has been operating at a deficit. The first programs were offered in the spring of 1964. During this short period of existence, more than 500 persons have attended workshops and short courses. In June 1965 the CLA Board of Directors voted to assist in arranging programs to be held throughout the state. "The Program has proved its merit," said Virginia Ross, CLA President, "but has not had enough time to become fully established on a self-sustaining basis."

Yes, it costs money, this continuing to learn. But do the members of SLA have any choice but to perpetuate it? It is more critical, perhaps, here than in any other field of librarianship, because so many represent libraries which are part of corporations, either profit-making or non-profit. And the scope of their information programs depends entirely on the vagaries of contracts which affect the parent organization, budgets, funds allocated, and the like; and if these special libraries wish to survive they must continually grow.

It might not be too serious for the academic library or the public library to rock along, content with current techniques and skills of librarianship. Perhaps not too serious if they do, but it should be serious with them also. But those in special libraries cannot afford to be content, for if they are, it will be their information programs which will be the first to feel the cutbacks the corporation must make. They must build themselves so strongly into a corporate structure, whether it be an academic, public, or industrial structure, that they are the last, reluctant cutback to be made, instead of the first, most natural place for a cutback.

How can special librarians do this? Continuing education for special librarianship may not be the complete answer, but it is certainly a good insurance policy. They cannot wait for state or federal legislation to allocate grants and funds. Nor may they lull themselves into false security with the excuse that "it takes so much time to organize a program of continuing education—let's wait for SLA, for Headquarters, to set up a formal program for us."

**They cannot wait; they must not wait.** These are critical times. There is a tide in our affairs now at full flood, and, as Brutus said, "We must take the current when it serves or lose our ventures."

Who, then, must take the initiative? The Divisions of SLA? The Sections? No, for that, too, takes time.

It leaves, then, only the Chapters—the Chapters whose factors of advantage are present and ready made: A concentration of its members in a given geographical location, which results in comparative ease of communication.

The Chapters must not rely on the impetus to come from any local library schools in the area. For they, like the national, state, and federal associations and legislative bodies must, by the very nature of their charters, move slowly and cautiously in any such undertakings which involve funding.

But the Chapter members have no such restraints. Local workshops can be organized entirely on a voluntary host basis, with a negligible outlay of Chapter funds.

So what is needed? All that is needed is an epidemic. An epidemic caused by a filterable virus that attacks its victims with a case of acute, 'satiabile curiosity: a virus which is highly infectious. And the prognosis must be: incurable and continually growing in intensity.

Continuing education can be both formal and informal. In either case it can be haphazard or directed. Whether formal or informal, continuing education requires that the librarian have a goal in mind and a plan for achieving it. In arriving at the plan it is helpful to have an advisor. With a goal and a plan the librarian has to think about means. Those interested in continuing education for librarianship need to consider new and imaginative avenues, rather than depend on traditional, not always satisfactory techniques.

## Continuing Education: Formal and Informal

RICHARD A. DAVIS

TO SAY continuing education is almost a redundancy since self-education continues to some extent until the day we die. What is really meant is the degree of continuing education. It can be haphazard, lacking in direction and insight as to goals or objectives, or it can be directed toward specific aims which will better the individual as a professional, as a person, and as a member of society.

First, let us define two types of continuing education. Informal education is mostly self-directed and involves such activities as reading, attending lectures, meetings, conventions, and demonstrations, going on tours, and enjoying bull sessions with one's colleagues. All of these have the characteristic of involving the individual in a relaxed way, somewhat as a spectator. He reads what he wishes, attends the meetings, lectures, demonstrations, tours, and convention meetings, and participates in the bull sessions that interest him, rejects the others, and does not hesitate to depart from this system of acquiring knowledge if there is another distraction.

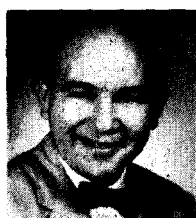
Formal education on the other hand requires a more serious commitment. The participant usually gives both his time and money and becomes an active member of the

educational group so that he gets his money's worth. This formal education includes the courses that are taken in a school, symposia, conferences, and workshops in which there is active participation by the members of the group.

### Goals and Plans

What is missing in both formal and informal education, as far as the individual is concerned, is a goal, objective, aim, or purpose for what he is doing. When he was in school, especially library school, he had some sort of goal in mind: to get a degree so that he could earn money, to become a special librarian, to prepare himself for doing cataloging work, to make a contribution to society, and any of a dozen others. In order to attain these goals he subjected himself to a rigorous program. Advisors helped him map out a plan of action to achieve these goals with the most efficiency and within the time prescribed by the curriculum of the library school.

But what about the person who has completed his formal library education and has achieved the library science degree he coveted? Let us assume that he has achieved his other goals, the right job, in the right organization, at a pleasing pay scale. What now are his aims, goals, objectives, or purposes? Most librarians become centered on the work in which they are immediately involved and on advancement in rank, increase in monetary reward, and achievement of status among fellow librarians. These are coupled with desires outside the professional area such as a nice place to live, a good car, a family: in other words, the good things in life.



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As the typical librarian becomes submerged in the routine of the job and the toils of everyday living, he loses sight of the very goals that moved him through formal education in library school. In fact, he becomes "goal-less" when it comes to continuing education, having at best some vague and generalized notion of "keeping up with what is going on." No longer does he have the sharp goals developed in library school or the advice of a counselor on what course may lead him to his goal.

He participates in both informal and formal educational activities with no long-range objective in mind. He attends a workshop because of its immediate relation to his work, he takes a course at the local university in order to improve his job position, he reads articles in the professional magazines in a haphazard manner to keep abreast of the latest developments. But most of this is undirected and unplanned and fits into no overall scheme.

However, at this point there is another problem. In the school situation where one had goals, one also had an advisor who helped him toward these goals. It is true that some people are their own best advisors, but for most it helps to discuss plans with another person, see various courses of action, explore alternatives, and bounce ideas back and forth. Where does the librarian go when he is trying to lay out a program for continuing education? He can talk to his friends, he can talk to his superiors, and he can even go to the local library school to seek advice, but how many do this? Not many, because they do not have any objective in mind and so cannot seek advice. So this setting up of goals is the first step.

The second step is laying out a plan of action, and it is here that advice is needed. In a program of continuing education it is not necessary to concentrate on formal education; informal educational methods are also valuable. The whole world of possibilities is before the librarian, but he has limited time so must plan his program of education to take advantage of all possible forms. In library schools there are faculty advisors able to help develop such a plan, and also catalogs of formal courses, announcements of conferences, workshops, symposia, and the like, that can be integrated into the plan. Advice

can be obtained on the kinds of reading it would be well to do and on persons with common interests.

### Local Education Officers

All of the burden cannot be put upon the library schools, because right now they are overwhelmed with too many students and too few teachers. Why can't the local library groups develop, as education officers, individuals who have insight and aptitude and a willingness to take the time to become experts in continuing education. These persons could serve as advisors to librarians in the area, giving personal advice and keeping informed of educational opportunities that may exist. Such an education officer might even establish conferences, workshops, and courses to serve the needs of the area when nothing else is available. He could also serve as a coordinator of programs to prevent duplication of effort and wasteful expenditure of time and money.

To recapitulate, the first need of the individual in continuing education is to develop the goals which he wishes to achieve, and the second is to lay out a plan by which he may achieve these goals. Once this has been done the individual has made a great step forward out of the morass of indecision and hit-or-miss learning into a program that will lead him to some well-defined objective.

The last point to discuss is the means of continuing education. Previously mentioned were the most common of the formal and informal methods but let us review them from a critical point of view as tools of education. Since librarians are supposedly orientated toward the book and the journal, it is surprising that there is so little educational material available for library science. The few textbooks that do exist are often inadequate in quality, and so the person who seeks to educate himself in an area will be at a disadvantage. The basic background that he should have found in a text is spread over a variety of books, articles, and reports.

Many of the articles in the library periodicals are trite, contain little new information, or are reprints from other library publications. A few journals contain a preponderance of solid articles. The individual should concentrate his reading on journals and articles that will best serve his needs. One educa-

tional scheme used by some medical specialists might be well adopted by small groups of librarians with similar interests. Several doctors, for example, who are thoracic surgeons divide the major journals among themselves. Each doctor reads the pertinent articles from the two or three journals for which he is responsible and then at monthly meetings gives his colleagues a verbal summary of each of the articles. They are constantly alert to each other's specialized interests and to the interests of the group as a whole. They cover a great deal of material with a minimum expenditure of time.

Lectures, meetings at which there is a speaker, and conventions all fall into the passive audience category. They have their high points and their low points, and the lows usually outweigh the highs. Speakers are often uninspired and uninspiring and their audiences feel cheated, robbed of time if not money. It might be better to have fewer speakers and choose those who have a real contribution. Then devote the saved time to workshops or bull sessions, which seem to be a popular form of learning experience to most librarians.

### Informal Information Exchange

It is said that people come to meetings and conventions to meet their friends and discuss problems with their colleagues, not because of the speakers. An informal exchange of information can be encouraged and made a formal part of the program. The American Documentation Institute has successfully scheduled such sessions at their conventions. Then the person who has a planned educational program with a goal can seek out experts who will contribute to his development and in an informal atmosphere discuss his problems. What better way is there to learn than in this student-master relationship?

In the realm of formal education, there are courses offered at library schools, but let's not restrict our thinking to the library school. Many worthwhile offerings in any college or university will enable the person with a plan to advance himself toward his goals. One of the difficulties of taking courses is the day and hour at which they are offered. Many graduate schools do not try to accommodate the part-time student and even discourage him.

Unfortunately, although librarians have prided themselves on dealing with multiple means of communication, they do not take advantage of these media to get the benefit of formal courses. Many courses lend themselves to correspondence study, but the few offered are of the most basic nature. The problem seems to be that no credit is given for a graduate correspondence course. In my opinion this is not justified. It has been conclusively proved that students taking an undergraduate correspondence course have done better on its final examination than students taught in a classroom situation. The complaint that there is a lack of personal contact with the instructor fails to recognize the personal quality of correspondence—the correspondence student often receives more attention than if he were one of a group in a class.

The whole area of closed-circuit TV as an instructional tool has been ignored in teaching library science. If physicians and lawyers can successfully use this means of teaching, then certainly librarians can. They could provide the best instructors in the country and teach the same class simultaneously in several cities. This is not one-way teaching, because there is opportunity for the students to question the instructor. In addition, tapes made of these classes may be replayed at a future time to serve as refreshers for the students or as a means of instructing new groups.

Extension courses can be offered by library schools just as extension courses are offered in any other discipline. This is being done on a limited scale. One of the obstacles is a lack of competent teachers, and here we come back to the closed-circuit TV as a means of instructing far distant groups.

### Too Many Conferences?

Representing the Graduate School of Library Science at Drexel, I am hardly on safe ground when I say that there are too many conferences and symposia, because we have more than our share. But I do think that there is a great deal of overlapping, duplication, and complete dishonesty about many of these affairs. Too many times it is the same group of speakers, covering the same ground, in the same boring manner. There is a lack of uniformity, of content, of direction, and of preparation. Most librarians with whom



I have talked (and this is not a statistically proper sample) feel that they benefitted most from the conferences in which they actively participated or from workshops in which they actually worked on problems of concern to themselves. Inspiration and ideas can come through lectures or speeches, but for survival they must be nurtured and developed as soon as possible. This causes the feeling of satisfaction at workshops. The individual gets the opportunity to practice what was preached and reinforce what he heard.

Let us summarize with the following three points: 1) in order to be successful in any

program of continuing education, the individual must have a goal or goals clearly defined, not only in his own mind but in a way he can explain to others; 2) a plan of continuing education is necessary for an individual to get advice on how efficiently and effectively to educate himself; the advice should be provided by local associations and by the library schools; 3) expansion of the facilities available for continuing education is needed both on an informal and a formal basis, so that the greatest opportunity is provided for the most people with the least amount of time, effort, manpower, and money.

Eleven accredited library schools do not offer separate courses in special library administration. Faculty opinion in most of these schools is that principles of administration are general, applicable to all libraries, and best imparted in one general course in the basic year of library education. The diversity of special libraries would require too many duplicative administration courses. Factors relating to special library problems can be introduced as part of basic, core courses in library education.

## Administration Training in Graduate Library Schools

RUSSELL SHANK

OF THE nation's thirty-six library schools accredited by the American Library Association in 1964, eleven did not offer a course in special library administration. When queried as to the reasons for this lack, they all responded. The following presentation is based on their reports.

Four of the schools had quite practical and mundane reasons: either they lacked enough students to sustain the development of special courses, or they had no faculty members qualified to teach this particular topic. Two of the schools' directors indicated they were planning to offer such a course as soon as one could be organized with adequate training resources. The others did not commit themselves.

Thus, only seven of the schools gave pedagogical reasons for not offering special ad-

ministration courses, based on faculty analyses of curricular needs and positive decisions to achieve educational purposes without such courses. Five of the schools' faculties indicated they had positively considered the topic of special library administration, and had decided against organizing courses specifically devoted to it. According to one faculty, as lectures on administration of different types and sizes of libraries developed, they seemed to come closer and closer to a rather common core of knowledge or information on administration. Hence a general course was in order. Special libraries were too many in kind, size, orientation, organizational orientation, purpose, subject scope, and any other criteria conceivable, to allow the isolation of unique administrative principles relating to them. Too much of what several of these fac-

ulties thought might be put into a special libraries' course was procedural, thus eclipsing the important aspects of administration which governed them. From this point, which was rather common among the schools in this group, curricula planning called for the introduction of the problems and practices of special libraries, among others, into various courses on materials selection, acquisition, cataloging, service, and special collection development.

Librarians and library school faculties have long labored the question of the utility of courses in special library administration. The Joint Committee on Library Education of the Council on National Library Associations, of which the Chairman of the Education Committee of the Special Libraries Association was a member, developed curricula for seven areas of special library education in the early fifties. It was recognized that these seven were only the beginning: that other subject areas could be developed. But, as was shortly disclosed:

Although they [the curricula] result from the careful study and work of outstanding special librarians, in their preliminary form they present a situation of almost unlimited diversity and would make it quite impossible to include special library education within the framework of general library school programs. Special library education planned along these lines would make the library school curriculum extremely diverse, expensive, and impractical.\*

Courses on administration were included in most of the curricula, and a closer examination clearly indicated that most of the fundamental administrative principles each curriculum wanted to convey were common to them all. The variations they anticipated stemmed from the influences of local requirements. The development of curricula was then guided by an earlier statement of principle in education for the profession which suggested:

... instead of planning our specialist's education in terms of the *form* of work he is to be paid for doing, we plan it in terms of the *content* of understandings he will require, and then see whether that content cannot be

\* Leigh, Robert D., ed. *Major Problems in the Education of Librarians*. New York: Columbia University Press, 1954, p. 41.

brought into relation with similar content required in other forms of library work. In this way, we shall avoid the excessive proliferation of separate courses or separate forms of work and thus not be beguiled into pulverizing the concept of a profession into a miscellany of educationally discrete activities.†

No one, either in the earlier proceedings just cited, or among the respondents to the current survey, denied the importance of special librarianship, whatever that is, or the requirement that library school curricula give some attention to the major aspects of its form, content, place in the profession, and attitudes of its proponents. The issues have been the determination of the content of the basic academic training program for a professor, the degree of specificity that should be built into the teaching of administration in the profession, and to some extent, the educability of a heterogeneous student body in administration.

Organized, academic training programs for librarianship have one year to convert a college graduate into a professional librarian. The degree will attest to his abilities as a "master of librarianship" (except in those few graduate library schools that offer a Master of Arts degree for the fifth-year program). In that one year, the idea is to impart enough fundamental skills and knowledge, jargon and attitudes, theories and premises, to allow the graduate to operate at a reasonable, but probably minimum, level of performance upon graduation. The library schools long ago gave up concentration on training in procedural matters. The whole fifth-year library education program is based on the premise that at least the first year on

† White, Carl M. Discussion: Advanced Study and Research in Librarianship. In Berelson, Bernard, ed. *Education for Librarianship*. Chicago: American Library Association, 1949, p. 229.



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the job after graduation will be a part of the new librarian's professional educational experience. Employers must expect to be partners in the training of new professional librarians, either through formal in-service training or natural on-the-job experience. It is in that year that the new graduates can sharpen their talents for administration in specialized settings.

In the first academic year it is difficult to rule out any of the topical areas into which the knowledge of the profession can be classified when establishing the limits of the curricula of the master's degree programs. Because of the pressures of limited time, courses in administration, cataloging, classification, bibliography, reference and advisory services, history of books and libraries, book selection and collection development principles, and so on, must be taught at the general level. At best the library school can merely indicate some of the influences acting on the operations of different types of library activities in different institutional settings that will affect decision-making processes. Hopefully they will have provided the students with sufficient memory store to allow them to resolve problems professionally in many settings. All of the schools that do not teach special courses in administration do allow the students to weight their selection of courses during the one year of library school with the special problems courses in technical services, readers services, literature and information handling, and other topics. These are added to a core of courses in basic, general professional topics, somewhat according to a reasonable rationale based on the students' potential.

Administration can be taught, in a sense, although practice on the job is the best teacher. Library school courses can tell the students what they will be doing in administration, that is, making decisions in the library environment, on matters of personnel, organization, supervision, budget, evaluation, coordination, and like topics. The best thing the library school can do is to broaden the student's vista to encompass as much of li-

brarianship as possible, so that he will have the largest possible store of professional knowledge, skills, and techniques, and some comprehension of the theories from which current techniques stem, in order to know what techniques are likely to work under what circumstances, or to be inventive in situations where their memories of specific techniques, or the techniques themselves, fail. Evidence suggests that library schools may more usefully contribute to the education of librarians already committed to special environments through the provision of post-graduate institutes and workshops on special administrative problems, and through sponsorship of research on special library problems.

Obviously there are differences of opinions among the schools, and between schools and some of the members of the profession as to how to create the librarian. It seems futile to argue or even discuss these differences again and again. Hopefully some suggestions will be forthcoming that will indicate with some precision just what goals the library schools should have in order to do what is meaningful in introducing students to special librarianship. But beyond that, special librarians will always have to satisfy themselves with being a part of a profession, and accept several approaches to the introduction of special library oriented training efforts in the various schools. Curriculum planning is an intricate matter. The major elements of librarianship can and will be divided several ways by the schools, and introduced into course packages of various kinds, hopefully with the integration of divided elements among the courses being provided by faculty planning. The administration of the educational programs must take account of local influences, such as the needs of regions or the principal groups the universities serve, the availability of resources such as faculty, consultants, student bodies, and funds, and the freedom usually associated with university faculties that allows individual professors to develop their courses as their skills, abilities, and perceptions of topics dictate.

A common assumption is that the library schools do not accord special librarianship the attention it deserves. The basis for such criticism appears to be the belief that the principles and techniques of the core curriculum are not readily applicable to special library practice. This paper argues that a core of principles and techniques does exist common to all areas of librarianship. The design of a model introductory course in special librarianship is presented which emphasizes the relationship of special librarianship to general librarianship and which endeavors to define the history, objectives, functions, organizational structure, and role of the special library. It is suggested that special librarians enter into a more productive educational partnership with library schools. This might, for example, involve the establishment of internship programs to provide students with clinical experience within realistic working environments.

# What We Should Teach Special Librarians

ALAN M. REES

TO CRITICIZE the library school as an educational institution is a tradition jealously nurtured and perpetuated by practicing librarians. Special librarians have been particularly active in this invigorating pursuit. The schools follow rather than lead the profession, lag in teaching the new information technology, capitulate to non-librarians poaching on the librarian's professional preserves, possess a narrow and constrained conception of librarianship, cling to outmoded teaching methods, espouse an inflexible and outmoded core curriculum which has little relationship to fast-changing areas of librarianship—all of these allegations are familiar. As Harold Lancour pointed out some thirteen years ago, "A favorite sport of special librarians is to collect the catalogs of the thirty-five accredited library schools and to tabulate

the courses offered in special library work. The results of such investigations are, to special librarians, a never ending source of irritation."<sup>1</sup> Typical of the special library viewpoint is the following: "I would emphasize that library school training on the whole does little to prepare students for special library work. I would recommend more attention to the problems of special libraries and less to those of public libraries."<sup>2</sup> This quoted observation was made in 1937. How many today would in fact agree? What is wrong, if anything, with education for special librarianship?

The basis for criticism of library school programs in special librarianship appears to be the belief that the principles and techniques of general librarianship as expressed in the core curriculum are not readily applicable to special library practice.<sup>3</sup> Intrinsic to this argument is the notion that special librarianship is different by virtue of its concern with special materials, special subject areas, highly defined needs, more intensive information services, non-conventional systems, deeper and more varied subject analysis, peculiar organizational structure, aggressive rather than passive attitude.<sup>4</sup> Such differences, it is alleged, are neither reflected nor recognized in library education. The inflexibility of the core curriculum over several decades and the inadequate provision for specialization once core requirements are completed



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preclude satisfactory educational programs for special librarianship.

One views these arguments with a measure of sympathy. Yet dissatisfaction with the core curriculum as it presently exists is not to be equated with rejection of the concept itself. Denial of the existence of basic concepts and principles common to all areas of librarianship leads to the erosion of librarianship as a profession. The transition of surgery from a skilled trade to a respected specialty of the medical profession is largely due to the present underpinning of surgical practice by basic medical sciences such as physiology and anatomy. Likewise, it is not unreasonable to endeavor to discover and communicate a corpus of principles which can be applied to all specialized areas of library practice. For this reason we continue to espouse the core concept as the basis for education in special librarianship provided that it is flexible and evolutionary.

### Specialization in Library Education

Having accepted the notion of a core curriculum, how much specialization is desirable and possible within a one-year Master's program? The continuing insistence on ever-increasing amounts of specialization in library education is both dangerous and impractical. "Library work," it was once pointed out, "cannot be put into capsules so that one can take the capsule for engineering libraries, for historical libraries, for hospital libraries. The whole of knowledge is too intricately related."<sup>5</sup> Excessive proliferation of separate courses must inevitably lead to a fragmentation of the essential unity of librarianship and a resulting pulverization of the concept of a profession into a miscellany of educationally discrete activities.

Extensive specialization is moreover impractical within the one-year Master's program.<sup>6</sup> A course in special libraries, academic libraries, or any other library specialty can only be introductory. It should be recognized that library school courses, no matter how specialized, are not the termination but rather the beginning of education for librarianship. "The educational program should prepare the student to become a librarian; it does not turn out a completely expert librarian upon graduation."<sup>7</sup>

By way of analogy the recent Coggeshall Report on Medical Education noted that at present the M.D. degree is earned at about the midpoint of the formal education of the physician but that "it is here that the traditional medical school abandons him and relinquishes responsibility." The Report argues that "in the future, professional physician education should continue in a coordinated sequence, under the sponsorship and guidance of university medical schools through internship and residency programs. Rapid growth of knowledge and introduction of new techniques makes skills obsolete before the professional life of the practitioner is finished."

With respect to librarianship it is unreasonable to expect the library schools to fashion expert professional librarians at the end of the one-year Master's program. No professional school produces finished products. A specialist is not a beginner but an expert, a master of the history, theory, techniques, and practice of a chosen field. No course in special librarianship, however ideal, will produce a trained special librarian.

It is important, therefore, to recognize the limitations of specialized courses within the one-year library school program. At best it is possible to teach the core curriculum and at the same time, by means of courses in "applied librarianship," indicate in general terms the nature of practice in various specialized areas of librarianship—academic, special, children's, and the like. The institution of post-graduate internship programs would certainly provide a deeper and broader understanding of a specialized field than is possible at the Master's level. We stand in urgent need of the same kind of educational relationship which exists between medical schools and hospitals. True specialization can come only if internships can be provided within library specialties to permit clinical experience and observation within realistic working environments. Although very real difficulties exist with respect to the implementation of such programs, their desirability seems unquestioned. The recent initiation of internship programs in medical librarianship at the University of California at Los Angeles, Washington University, and the University of Tennessee Medical Units in Memphis is most encouraging.

## Design of Model Course

In view of the preceding argument it is evident that serious constraints exist with respect to the teaching of specialties such as special librarianship within the Master's Program. The proposed course can therefore constitute only an introduction to, rather than training in, special librarianship.

### *Course Objective:*

To provide an introduction to special librarianship; to reveal the history, objectives, organizational structure, and characteristics of various types of special libraries; to survey the basic principles and techniques of the core curriculum and to illustrate how these can be modified, utilized, and evaluated within diverse special library contexts.

It is not the intention to repeat the basic curriculum or to present "filet of core" suitably garnished for the special librarian. Rather, the core curriculum will be reviewed in relation to specific types of materials to be cataloged and indexed for the purpose of providing information services to identified groups of users with recognized information needs in special library environments. It will be pointed out that there are no principles and techniques peculiar to special librarianship and that the necessity for specialized instruction is occasioned by the peculiar contexts in which special library services are to be provided.

Encapsulated doses of information retrieval and library automation are not provided. These belong in the general curriculum, preferably within the core itself, since these techniques and underlying theory are applicable to all areas of librarianship and are not peculiar to special librarianship. However, coordinate indexing, thesauri, and selective dissemination systems will be discussed in terms of their applicability to special library situations.

### *Content:*

1. The Specialty of Special Librarianship:
  - a. Special vs. generalized librarianship.
  - b. Definition of special library.
  - c. History of special libraries.
  - d. Types of special libraries (organization vs. subject).
  - e. Special libraries and information analysis centers.

- f. Place of the special library in the national information network.
- g. Objectives and functions.
- h. Clientele—user needs.
- i. Administrative organization.
- j. Standards.
- k. Budget.
- l. Personnel.

### 2. Technical Processes:

- a. Acquisition of materials.
- b. Types of material.
- c. Subject Analysis:
  - Cataloging,
  - Classification,
  - Indexing,
  - Abstracting.
- d. Reader Services:
  - Circulation,
  - Interlibrary loan,
  - Translations, etc.
- e. Reference Services:
  - Telephone,
  - Literature searching, etc.
- f. Dissemination:
  - Library bulletin,
  - Current contents bulletins,
  - SDI, etc.

### *Methodology:*

In addition to extensive lectures and discussion each student is required to design a special library in a specific subject field or in an identified organizational context—professional association, industrial company, and so on. The decisions which must be made with respect to definition of objectives, implementing technical processing, and providing information services will be discussed by students in relation to constraints imposed by limited budget and personnel.

### **Conclusions**

No radical changes have been proposed in this paper. There is no elixir of special librarianship; no core of principles and techniques exists peculiar to special library practice. Viewed in this light, special librarianship constitutes a collection of specialized applications and this must be conveyed and demonstrated in any teaching program. Specialized instruction within the Master's program can only be introductory, with the consequence that it is absurd for special li-

brarians to demand that the library schools graduate finished products. The dialogue between special librarians and library educators for more than fifty years has been highly repetitive, parochial, and particularly devoid of constructive suggestion. Rather than launch into another half-century of carping, special librarians should cooperate with library schools to provide appropriate training programs which would furnish insight into the practical application of theoretical principles. Without such clinical experience there is a limit to what a library school can teach.

Such experience might usefully be achieved by instituting internship programs to supplement introductory courses in special librarianship. The schools for their part must relax their grip on what has been an inflexible and rigid core curriculum and endeavor to foster research devoted to defining and strengthening the fundamental principles upon which the strategy and tactics of professional library practice can be based.

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# News and Notes

SPECIAL LIBRARIES  
ASSOCIATION

January 1967, No. 1

*Published quarterly by Special Libraries Association, 31 East 10th Street, New York 10003*

**T**he Midwinter Meeting of the Board of Directors and the Advisory Council will be held January 19-21, 1967, at the Shamrock Hilton hotel, Houston, Texas. The meeting, except for executive sessions, is open to all SLA members, and members of the Texas Chapter especially are invited to attend.

**T**he SLA Translations Center continues to receive federal support in its work. The National Science Foundation has awarded the Association a grant of \$48,915 in partial support of the Center. This is the eleventh year that NSF has contributed to the Center's operations. The Clearinghouse for Federal Scientific and Technical Information, National Bureau of Standards, U.S. Department of Commerce, also renewed its contract with the Association through December 31, 1966. Under this agreement the Translations Center provides the Clearinghouse with bibliographic and subject analyses for the more than 6,000 translations it collects each year from nongovernmental organizations.

**S**LA has just published *The Library, An Introduction for Library Assistants*, a project of the San Francisco Bay Region Chapter, which explains the fundamentals of library operations to library assistants. The handbook provides them with a fuller understanding of the goals and procedures of libraries as well as an explanation of the role of the library assistant in his environment. Emphasis is on what the library operations are and why they exist.

The contents are an extensively revised and up-dated version of material originally presented at the San Francisco Bay Region Chapter's 1962 and 1964 Workshops for Library Assistants.

The editor, William C. Petru, is Technical Processes Librarian at Hewlett-Packard Company, Palo Alto, California. He was assisted by Mrs. Martha W. West, Director of Information Services at EDEX Corporation, a subsidiary of Raytheon Company in Mountain View, California.

The 88-page, paperback volume contains a glossary of terms used in the text, selected references, and a general index. Copies are available from Association Headquarters at \$4.00 each.

**A**nother SLA publication, *A Checklist for the Organization, Operation and Evaluation of a Company Library*, 2nd edition, announced for fall, ran into a number of production snags. It came off press in late December and orders are now being filled.

**A**ssociation members have been invited to submit papers for the 14th International Technical Communications Conference of the Society of Technical Writers and Publishers. The conference, whose theme is Technical Communication—Man's Record of Reality, will be held in Chicago, May 24-27, 1967. For further information, write Elizabeth J. Grimm, American Oil Company, 2500 New York Avenue, Whiting, Indiana 46394.

## Report of the Treasurer

I respectfully submit the financial statements of the Special Libraries Association for the year ended September 30, 1966, including the statement of assets and fund balance and the summary of changes in special fund balances. The report of Price Waterhouse & Co., who examined the financial statements, is included herewith.

JEAN E. FLEGAL, *Treasurer*



**Board of Directors of  
Special Libraries Association**

In our opinion, except for the possible effect of determination of income taxes referred to in Note 2, the accompanying statements (Exhibits I through V and Schedule A) present fairly the assets of Special Libraries Association at September 30, 1966, resulting from the 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 \$59,000 collected at September 30, 1966, for dues and periodical subscriptions applicable to subsequent periods; the corresponding amount at September 30, 1965, was approximately \$47,100. The accounts at September 30, 1966, do not reflect expenses incurred but not paid of approximately \$14,700; the corresponding amount at September 30, 1965, was approximately \$14,200.

60 Broad Street, New York, N. Y. 10004  
December 2, 1966

PRICE WATERHOUSE & CO.

**EXHIBIT I**

**SPECIAL LIBRARIES ASSOCIATION**

**STATEMENT OF ASSETS RESULTING FROM CASH TRANSACTIONS  
SEPTEMBER 30, 1966**

<b>Assets</b>	
General fund:	
Cash, including savings accounts of \$55,258.95 .....	\$105,644.89
General Reserve fund:	
Cash in savings accounts .....	17,608.82
Marketable securities, at cost (approximate market value \$37,800) .....	38,423.66
	<hr/> 56,032.48
Life Membership fund:	
Cash in savings account .....	6,098.95
Publications fund:	
Cash, including savings accounts of \$18,739.08 .....	34,365.07
Scholarship and Student Loan fund:	
Cash in savings accounts .....	19,618.58
Loans receivable .....	3,114.00
	<hr/> 22,732.58
Translations Center fund:	
Cash in checking account .....	15,282.35
Equipment Reserve fund:	
Cash in savings account .....	7,174.97
Foreign Publications Agency fund:	
Cash in checking account .....	395.74
Special Classifications Center fund:	
Cash in checking account .....	1,077.35
Motion Picture fund:	
Cash in savings account .....	3,125.61
Soviet Exchange fund:	
Cash in checking account .....	13,590.44
Translations Index fund:	
Cash in checking account .....	13,500.00
	<hr/> <hr/> <b>\$279,020.43</b>

**EXHIBIT I (continued)****Fund Balances**

General fund (Exhibit II) .....	\$105,644.89
Translations Center fund (Exhibit III) .....	15,282.35
Special Classifications Center fund (Exhibit IV) .....	1,077.35
Special funds (Exhibit V):	
General Reserve fund .....	56,032.48
Life Membership fund .....	6,098.95
Publications fund .....	34,365.07
Scholarship and Student Loan fund .....	22,732.58
Equipment Reserve fund .....	7,174.97
Foreign Publications Agency fund .....	395.74
Motion Picture fund .....	3,125.61
Soviet Exchange fund (Schedule A) .....	13,590.44
Translations Index fund .....	13,500.00
	<u>\$279,020.43</u>

**EXHIBIT II****SPECIAL LIBRARIES ASSOCIATION**

**STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED  
AND CHANGES IN GENERAL FUND BALANCE  
FOR THE YEAR ENDED SEPTEMBER 30, 1966**

	Actual	Budget
Income collected:		
Dues .....	\$142,687.73	\$139,205.00
Periodicals:		
Scientific Meetings .....	8,850.55	8,907.00
Special Libraries .....	53,236.55	53,950.00
Technical Book Review Index .....	20,564.64	20,750.00
Service on Unlisted Drugs .....	1,287.89	1,350.00
Net receipts from convention .....	28,571.64	20,200.00
Interest on funds in savings bank accounts .....	2,248.13	2,200.00
Addressing service .....	3,949.96	6,200.00
Miscellaneous .....	1,191.38	1,000.00
Total income .....	<u>262,588.47</u>	<u>253,762.00</u>
Expenses disbursed:		
Allocation of funds to subunits:		
Chapters .....	17,106.04	17,803.00
Divisions .....	13,925.50	14,760.00
Committees .....	8,432.49	7,760.00
	<u>39,464.03</u>	<u>40,323.00</u>
General operations:		
Salaries .....	72,721.04	73,081.00
Payroll taxes .....	6,161.03	6,355.00
Rent and occupancy tax .....	6,936.96	7,425.00
Auditing .....	1,753.12	1,550.00
Legal counsel .....	1,004.10	1,050.00
Insurance .....	758.95	790.00
Supplies and printing .....	6,490.78	5,300.00
Postage and shipping .....	8,907.31	6,700.00
Telephone .....	1,849.10	1,900.00
Equipment .....	1,192.30	1,000.00
Equipment maintenance .....	954.10	1,015.00
Building maintenance .....	39.96	100.00
Porter service .....	1,870.50	1,818.00
Library materials .....	637.21	500.00
Miscellaneous .....	571.65	300.00
	<u>111,848.11</u>	<u>108,884.00</u>
Carried forward .....	151,312.14	149,207.00

**EXHIBIT II (continued)**

	<b>Actual</b>	<b>Budget</b>
Expenses disbursed (brought forward) .....	\$151,312.14	\$149,207.00
Periodicals:		
News and Notes .....	1,551.63	1,350.00
Scientific Meetings .....	8,505.79	8,904.00
Special Libraries .....	49,101.33	48,420.00
Technical Book Review Index .....	14,681.03	14,569.00
Service on Unlisted Drugs .....	1,430.76	1,350.00
Memberships in other organizations .....	487.00	720.00
Board of Directors meetings .....	1,081.45	750.00
President's expenses .....	2,772.98	4,900.00
President's fund .....	100.00	400.00
Headquarters' staff expenses .....	3,314.93	2,000.00
Placement service .....	479.78	225.00
Public relations .....	2,594.10	2,500.00
Headquarters' convention expenses .....	12,428.30	9,500.00
Services to sustaining members .....	9,008.20	3,800.00
Retirement program (Note 1) .....	12,360.94	12,585.00
Health insurance .....	714.48	800.00
Documentation Abstracts .....	2,000.00	2,000.00
Reduction for expenses disbursed for account of:		
Translations Center fund .....	(3,382.36)	(3,452.00)
Publications fund .....	(1,823.10)	(1,500.00)
Special Classifications Center fund .....	(265.55)	(139.00)
Soviet Exchange fund .....	(612.88)	(1,345.00)
Total expenses disbursed .....	<u>267,840.95</u>	<u>257,544.00</u>
Excess of expenses disbursed over income collected .....	(5,252.48)	<u>(\$ 3,782.00)</u>
Fund balance, September 30, 1965 .....	112,897.37	
	<u>107,644.89</u>	
Less:		
Transfer to Equipment Reserve fund (Exhibit V) .....	(1,000.00)	(\$ 1,000.00)
Transfer to Life Membership fund .....	(1,000.00)	
	<u>(2,000.00)</u>	<u>(\$ 1,000.00)</u>
Fund balance, September 30, 1966 .....	<u>\$105,644.89</u>	

**EXHIBIT III****SPECIAL LIBRARIES ASSOCIATION**

**STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED  
AND CHANGES IN TRANSLATIONS CENTER FUND BALANCE  
FOR THE YEAR ENDED SEPTEMBER 30, 1966**

	<b>Actual</b>	<b>Budget</b>
Income collected:		
National Science Foundation Grant .....	\$ 44,114.35	\$ 46,930.00
National Bureau of Standards Contract .....	27,600.00	27,600.00
Other .....	30.30	
Total income .....	<u>71,744.65</u>	<u>74,530.00</u>
Expenses disbursed:		
Salaries .....	38,223.68	39,014.00
Payroll taxes .....	2,232.38	2,165.00
Supplies .....	521.77	900.00
Communications .....	775.12	920.00
Equipment .....	412.93	490.00
Reference collection .....	137.82	150.00
Photocopying .....	8,407.55	9,100.00
Promotion .....	3,694.31	3,200.00
Field trips .....	561.89	1,600.00
Carried forward .....	<u>54,967.45</u>	<u>57,539.00</u>

**EXHIBIT III (continued)**

	Actual	Budget
Expenses disbursed (brought forward) .....	\$ 54,967.45	\$ 57,539.00
Meetings .....	203.68	
Rent and administrative services .....	8,359.92	8,360.00
Disbursed for account of the fund by SLA General fund .....	8,197.34	8,631.00
Total expenses disbursed .....	71,728.39	74,530.00
Excess of income collected over expenses disbursed .....	16.26	
Fund balance, September 30, 1965 .....	15,266.09	
Fund balance, September 30, 1966 (Exhibit I) .....	\$ 15,282.35	

**EXHIBIT IV****SPECIAL LIBRARIES ASSOCIATION**

**STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED  
AND CHANGES IN SPECIAL CLASSIFICATIONS CENTER FUND BALANCE  
FOR THE YEAR ENDED SEPTEMBER 30, 1966**

	Actual	Budget
Income collected:		
National Science Foundation Grant .....	\$ 2,833.58	
Expenses disbursed:		
Salaries .....	2,974.83	\$ 3,200.00
Payroll taxes .....	228.13	
Equipment .....	82.50	
Printing and supplies .....	177.61	
Communications .....	409.48	
Printing .....		
Library materials .....	165.08	
Rent and administrative services .....	930.00	
Travel .....	181.28	
Disbursed for account of the fund by SLA General fund .....	265.55	
Total expenses disbursed .....	5,414.46	3,200.00
Excess of expenses disbursed over income collected .....	(2,580.88)	(\$ 3,200.00)
Fund balance, September 30, 1965 .....	3,658.23	
Fund balance, September 30, 1966 .....	\$ 1,077.35	

**EXHIBIT V****SPECIAL LIBRARIES ASSOCIATION**

**SUMMARY OF CHANGES IN SPECIAL FUND BALANCES  
FOR THE YEAR ENDED SEPTEMBER 30, 1966**

**General Reserve Fund**

Interest and dividends received on marketable securities and savings bank accounts ..	\$ 3,235.69
Balance, September 30, 1965 .....	52,796.79
Balance, September 30, 1966 (Exhibit I) .....	\$ 56,032.48

**Life Membership Fund**

Interest on savings bank account .....	\$ 246.34
Transfer from General fund (Exhibit II) .....	1,000.00
John Cotton Dana lectures .....	(434.13)
Balance, September 30, 1965 .....	5,286.74
Balance, September 30, 1966 (Exhibit I) .....	\$ 6,098.95

**EXHIBIT V (continued)****Publications Fund**

Sales charged to sustaining members .....	\$ 1,606.70
Proceeds from sales of publications .....	44,941.19
Interest on savings bank accounts .....	875.61
Other .....	171.18
	<hr/>
Production and selling expenses .....	47,594.68
	(39,085.90)
	<hr/>
Excess of income over expenses .....	8,508.78
Balance, September 30, 1965 .....	25,856.29
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 34,365.07
	<hr/>

**Scholarship and Student Loan Fund**

Gifts .....	\$ 9,970.91
Interest on savings bank accounts and student loans .....	934.41
	<hr/>
Scholarship grants .....	10,905.32
Balance, September 30, 1965 .....	(7,250.00)
	19,077.26
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 22,732.58
	<hr/>

**Equipment Reserve Fund**

Transfer from General fund (Exhibit II) .....	\$ 1,000.00
Interest on savings bank account .....	315.49
Balance, September 30, 1965 .....	5,859.48
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 7,174.97
	<hr/>

**Foreign Publications Agency Fund**

Proceeds from sale of Aslib publications .....	\$ 319.46
Disbursements to Aslib and expenses .....	(669.03)
Balance, September 30, 1965 .....	745.31
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 395.74
	<hr/>

**Motion Picture Fund**

Gifts .....	\$ 143.00
Interest on savings account .....	134.24
Balance, September 30, 1965 .....	2,848.37
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 3,125.61
	<hr/>

**Soviet Exchange Fund  
(Schedule A)**

National Science Foundation Grant .....	\$ 23,411.00
Expenses .....	(12,870.59)
	<hr/>
Balance, September 30, 1965 .....	10,540.41
	3,050.03
	<hr/>
Balance, September 30, 1966 (Exhibit I) .....	\$ 13,590.44
	<hr/>

**EXHIBIT V (continued)****Translations Index Fund**

National Science Foundation Grant .....	\$ 13,500.00
Balance, September 30, 1966 (Exhibit I) .....	<u>\$ 13,500.00</u>

**SCHEDULE A****SPECIAL LIBRARIES ASSOCIATION**

**STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED  
AND CHANGES IN SOVIET EXCHANGE FUND BALANCE  
FOR THE YEAR ENDED SEPTEMBER 30, 1966**

	Actual	Budget*
Income collected:		
National Science Foundation Grant .....	\$ 23,411.00	\$ 24,895.00
Expenses disbursed:		
Transportation of U. S. delegation .....	6,347.87	12,060.14
Per diem expenses of U. S. delegation .....	4,512.19	8,876.20
Visas .....	3.00	35.00
Publication of report .....		2,450.00
Administrative costs .....	1,394.65	1,800.25
Disbursed for account of the fund by SLA General fund .....	612.88	1,261.63
Total expenses disbursed .....	<u>12,870.59</u>	<u>26,483.22</u>
Excess of income (expenses) over expenses disbursed (income collected) .....	10,540.41	(\$ 1,588.22)
Fund balance, September 30, 1965 .....	3,050.03	
Fund balance, September 30, 1966 (Exhibit I) .....	<u>\$ 13,590.44</u>	

\* The Soviet Exchange fund budget represents amounts approved in a prior period, less income received and expenses disbursed through September 30, 1965.

**SPECIAL LIBRARIES ASSOCIATION****NOTES TO FINANCIAL STATEMENTS****SEPTEMBER 30, 1966****NOTE 1:**

Effective October 1, 1963, the Association entered into a contributory group annuity contract with an insurance company. During the year 1966, \$6,200 and \$6,164 were paid for current and past services, respectively. Unfunded past service costs amounting to \$20,600 as of September 30, 1966, are to be paid by the employer over the years remaining to the employees' normal retirement dates. The employees contributed \$1,915 for the current service costs during the year ended September 30, 1966.

**NOTE 2:**

The Internal Revenue Service is examining the Association's information return for the year ended September 30, 1963, and has raised a question of possible assessment of tax on certain income which the Service may classify as unrelated business income. The maximum federal, state, and local taxes on the amounts in question before reduction for allocable expenses for the four years ended September 30, 1966, are estimated at approximately \$28,000. The outcome of the question raised by the Service is not determinable at this time.

# SLA Sustaining Members

The following organizations are supporting the activities and objectives of the Special Libraries Association by becoming Sustaining Members for 1967. This list includes all applicants processed through December 22, 1966.

ABBOTT LABORATORIES, North Chicago, Illinois  
RICHARD ABEL & COMPANY, Portland, Oregon  
AMERICAN IRON AND STEEL INSTITUTE, New York, New York  
AMERICAN LIBRARY ASSOCIATION, Chicago, Illinois  
ARGONNE NATIONAL LABORATORY, Argonne, Illinois  
ATLAS CHEMICAL INDUSTRIES, INCORPORATED, Wilmington, Delaware  
BASIC ECONOMIC APPRAISALS, INCORPORATED, New York, New York  
BECTON, DICKINSON & COMPANY, Rutherford, New Jersey  
BETHLEHEM STEEL CORPORATION, Bethlehem, Pennsylvania  
R. R. BOWKER COMPANY, New York, New York  
BRO-DART INDUSTRIES, INCORPORATED, Newark, New Jersey  
CIBA PHARMACEUTICAL COMPANY, Summit, New Jersey  
CONSOLIDATION COAL COMPANY, Library, Pennsylvania  
CONTINENTAL CARBON COMPANY, Houston, Texas  
CONTINENTAL NATIONAL AMERICAN GROUP, Chicago, Illinois  
CORNING GLASS WORKS, Corning, New York  
THE JOHN CRERAR LIBRARY, Chicago, Illinois  
DALHOUSIE UNIVERSITY, Halifax, Nova Scotia, Canada  
DALLAS PUBLIC LIBRARY, Dallas, Texas  
E. I. DUPONT DE NEMOURS & COMPANY, Wilmington, Delaware  
EASTMAN KODAK COMPANY, Rochester, New York  
F. W. FAXON COMPANY, INCORPORATED, Boston, Massachusetts  
GENERAL ELECTRIC COMPANY, Schenectady, New York  
GENERAL FOODS CORPORATION, White Plains, New York  
GENERAL MILLS INCORPORATED, Minneapolis, Minnesota  
GENERAL RADIO COMPANY, West Concord, Massachusetts  
GLICK BOOKBINDING CORPORATION, Long Island City, New York  
B. F. GOODRICH, Akron, Ohio  
JOHNS-MANVILLE RESEARCH AND ENGINEERING CENTER, Manville, New Jersey  
JOHNSON REPRINT CORPORATION, New York, New York  
WALTER J. JOHNSON, INCORPORATED, New York, New York  
KAISER ALUMINUM & CHEMICAL CORPORATION, Spokane, Washington  
ELI LILLY AND COMPANY, Indianapolis, Indiana  
LOCKHEED MISSILES & SPACE COMPANY, Palo Alto, California  
MCGRAW-HILL, INCORPORATED, New York, New York  
MAXWELL SCIENTIFIC INTERNATIONAL, INCORPORATED, Long Island City, New York  
NATIONAL ASSOCIATION OF ENGINE AND BOAT MANUFACTURERS, New York, New York  
NATIONAL BANK OF DETROIT, Detroit, Michigan  
NATIONAL LIBRARY, Singapore, Malaya  
NEW YORK LIFE INSURANCE COMPANY, New York, New York  
THE NEW YORK TIMES, New York, New York  
NORTH AMERICAN AVIATION INCORPORATED, El Segundo, California  
OGILVY & MATHER INCORPORATED, New York, New York  
THE PEOPLES GAS, LIGHT AND COKE COMPANY, Chicago, Illinois  
PITTSBURGH PLATE GLASS COMPANY, New Martinsville, West Virginia  
PRENTICE-HALL, INCORPORATED, Englewood Cliffs, New Jersey  
PROCTER & GAMBLE COMPANY, Cincinnati, Ohio  
PUBLIC SERVICE ELECTRIC AND GAS COMPANY, Newark, New Jersey  
RCA LABORATORIES, RADIO CORPORATION OF AMERICA, Princeton, New Jersey  
THE RAND CORPORATION, Santa Monica, California  
ROHM & HAAS COMPANY, Philadelphia, Pennsylvania  
ROYAL BANK OF CANADA, Montreal, Quebec, Canada  
ST. JOHN'S UNIVERSITY LIBRARY, Jamaica, New York  
SHAWINIGAN CHEMICALS LTD., Montreal, Quebec, Canada  
SHELL DEVELOPMENT COMPANY, Emeryville, California  
SHELL OIL COMPANY, New York, New York  
SKOKIE PUBLIC LIBRARY, Skokie, Illinois  
STERLING-WINTHROP RESEARCH INSTITUTE, Rensselaer, New York  
SYNTEX CORPORATION, Palo Alto, California  
TAYLOR-CARLISLE'S BOOK STORE, INCORPORATED, New York, New York  
TEXAS GAS TRANSMISSION CORPORATION LIBRARY, Owensboro, Kentucky  
TIME INCORPORATED, New York, New York  
J. WALTER THOMPSON COMPANY, New York, New York  
TORONTO PUBLIC LIBRARY, Toronto, Ontario, Canada  
UNITED COMMUNITY FUNDS & COUNCIL OF AMERICA, INCORPORATED, New York, New York  
UNIVERSITY OF DENVER, Denver, Colorado  
UNIVERSITY OF MISSOURI AT KANSAS CITY, Kansas City, Missouri  
UNIVERSITY OF TEXAS, Houston, Texas  
WESTPORT PUBLIC LIBRARY, Westport, Connecticut  
THE H. W. WILSON COMPANY, New York, New York  
WORCESTER FREE PUBLIC LIBRARY, Worcester, Mass.  
XEROX CORPORATION, Rochester, New York

The separate course is the choice of library schools wishing to prepare students specifically for responsibility in a special library; its content depends upon what is required to supplement the general curriculum. One such course, emphasizing administration, and utilizing a new teaching method, is described. Values of special librarianship necessary for orientation to the field are stated.

## Special Libraries Instruction: The Separate Course

MARTHA JANE K. ZACHERT

THE VERY existence of the separate course in special libraries implies its over-all objective, which can be stated as: to add to the general Master's degree program something that will prepare the student specifically for responsibility in a special library. This much is self-evident, and leaves little to say in this paper unless we go on to the question of "What is that something that is missing from the curriculum that at least some schools set enough store by to present in a separate course?"

The question can be answered only in the context of each library school's curriculum (and I shall speak to it in the context of the curriculum at Florida State University). First, let me make it clear that our philosophy of library education includes nothing that would result in what Erik Bromberg found in his survey—"A one-shot affair where [the student] received everything necessary about readers' services, cataloging, serials, acquisitions, administration, book selection, and so on." [See page 22.] Our philosophy precludes the possibility of such a catch-all course. No student at FSU takes only the course in special libraries; every student follows a planned program of studies. The special libraries program includes, for example,

Dewey and LC as a regular feature for all, and allows each student detailed academic study of one or more schemes relating to his specialization. I need teach no cataloging in the course called Special Libraries. Similarly, the special libraries program provides heavy emphasis on information and other readers' services, and on the tools to provide these services, through courses in basic and advanced reference and bibliography, subject field bibliography, and information storage and retrieval. I need not teach this, either, in the special libraries course. What about those materials of unusual significance to special libraries, such as technical reports, maps, documents, patents, vendor information, standards and specifications, archives? Again, courses covering these materials are a required part of the special libraries program. The same information could not be merely duplicated in another course; therefore, all this is excluded from the special libraries course. What, then, is the "something" to be added to the general curriculum to prepare the student specifically for responsibilities in a special library?

### Two "Somethings" Added

My own answer to this question is, by now, well-defined: two "somethings" need to be added to the FSU general curriculum to prepare the student to be an effective special librarian. The first is detailed study of the practicalities of administering a library in the locus in which the special library exists; and the second, thorough inculcation of the student with the values of special librarianship. This course content emphasizing the solution of administrative problems



*Mrs. Zachert, who is Assistant Professor at the Library School, Florida State University, Tallahassee, first presented this paper at the Second Forum on Education for Special Librarianship,*

*SLA Convention, Minneapolis, Minnesota, on June 3, 1966.*



characteristic of special libraries in a context of the unique self-image of the special librarian has evolved from several sources:

1. From the requirements of the FSU curriculum, in which each type-of-library course is expected to emphasize application of administrative theory to the particular type of library under discussion, i.e. academic, public, school, or special. There are four comparable courses of which the student usually takes only one.
2. From the evidence of the values of special librarians as recorded in *Special Libraries* and in the official communications of the Association, and as gleaned informally in many discussions at the local and national level.
3. From discussions with students in-course and those on their first jobs after completing their degrees, discussions relating to their felt needs in approaching actual special library jobs, and to problems they encounter for which they could, perhaps, have been better prepared in library school.

The result is a plan which devotes approximately two-thirds of the course time to application of administrative theory in what I call a *simulation study*. As I conceive it, simulation study differs from what is being called case-study method in library school teaching in several ways. Rather than exposing the student to a series of what are really problem incidents, the simulation study immerses the student in the world of a particular, though hypothetical, special library. This microcosm is structured in such a way as to make the student accept a role in it, to make him view related administrative problems in this well-defined context, to make him live with decisions once made, and to make him build future decisions on those of yesterday—in short, an approximation of a real situation, a simulation study. The student is placed in the position of decision-maker. The basic questions about which decisions must be made are the classic questions of administration: 1) What are the services to be offered? 2) What personnel are needed to perform these services? 3) What materials are needed to perform these services? 4) What physical facilities are needed to perform these services? 5) What basic media of communication are needed to perform these

services? 6) What financial planning is required to accomplish these services?

Within the context of the hypothetical library very specific decisions are made, and very specific jobs are performed. Each decision influences in some way the future decisions. Each student has the experience of working as a member of a team whose individual experiences contribute differently to the successful operation of the team. What the student decides influences what he does next, and what his classmates do next. He is encouraged, even forced, to be creative in these decisions. His decisions are analyzed, and criticized, at every step of his study. The simulation study utilizes problem-solving, demonstrations, and role-playing as its teaching methods.

### The Special Library Concept

The remaining one-third of the course time (most of which is actually scheduled first, chronologically) is given over to orienting the student to the "special library concept." This orientation includes the chronological history of special libraries, including special libraries outside the United States and the associations that support these worldwide special libraries. It attempts to appraise the role of the special library in today's world, evaluating both its accomplishments and its deficiencies as noted by its critics. It explores the special library's relationship to information science and documentation. It studies the search for special library standards, and the result. It does not introduce these subjects to the student, but—as is the case with the specialized treatment of administration—it emphasizes applications in special librarianship.

Interwoven through the entire course, both the orientation and the simulation study of administration, is a steady emphasis on the values of special librarianship, or to say this another way, on the image of special librarianship. There are five such values uppermost in the image of special librarianship, judging from the sources of information named earlier, values which I strongly feel do not receive sufficient emphasis elsewhere in the library school curriculum. Four of these have been specified in the literature: 1) that information is a commodity; 2) that the special librarian is more a manager than

an educator; 3) that creative administrative intuition is an essential virtue for a special librarian; and 4) that user-satisfaction is the major motivating force in special library planning. Since these values have been so well explicated in the literature of special librarianship, I assume that I do not have to explain or defend them. Nor do I feel that I need to defend the fact that one of my primary objectives in teaching a separate special libraries course is to elucidate these values to students who learn little of them in their "general" courses; to demonstrate these values as determinants of administrative decisions in special libraries; and, insofar as possible with adult students, to redirect attitudes to reflect these values.

### An Intimate Heritage

To these four well-known values I have added a fifth value which I hold and which I believe more special librarians would hold if they knew more about it. This is the value of the history of special librarianship as an intimate heritage, a definite (though largely unexplored) part of the total history of librarianship, but at the same time unique and therefore of singular importance to us. Our history, as a heritage of special librarianship and therefore as worthy of a place among our primary values does, perhaps, need defense. The self-image of special librarianship, though well-defined in other ways, is almost completely lacking in a historical base. Not that our history would ever become the major part of our self-image, for—though we are rooted in an honorable past—we are very much aware of ourselves as of the present and of the future. There is no danger that we could fall into a past-oriented image. Other branches of librarianship are in much greater danger of lingering in a bygone aura than is special librarianship. There are powerful forces in our milieu to keep us firmly facing the future. But this is not to say that our historical base should be ignored or denied. Especially in the climate of a "general" library school—where the historical base of public libraries is a present value in many of the "general" courses—the special libraries student needs his own unique historical orientation. He needs this not to separate him from the students who are bound for other, more historically ori-

ented types of library service, but he needs it to allow him to stand with pride among them. The prestige implied in long continuity of service need not exclude the student of special librarianship, and I want him to know this. It is not common knowledge. I have had to make my own studies of American special librarianship in the eighteenth and nineteenth centuries, especially outside the academic world of Rothstein and the business-industrial world of Kruzas. I intend to continue to explore our history until the story is complete, for I feel I must transmit it to students as information pertinent to their heritage, as well as the basis for their understanding and acceptance of other values.

We who utilize a separate course in special librarianship, then, want it to add something to the general program that will prepare the student specifically for responsibilities in special libraries, something which we feel is missing without this separate course. For me, at FSU, this means practical decision-making experience in the nearest approximation to an actual special library possible, plus a look both wide and deep at the concept of special librarianship. I suspect that, for each of the others teaching a separate course, this means a similar analysis of the curriculum of a particular library school and a course that is structured accordingly.

I am aware that there are differences of opinion. I am glad, for I believe this to be desirable and healthy. In fact, I would view uniformity of opinion on these points with the suspicion that we are indoctrinating, rather than educating. I am not unaware that these differences stem, at least partially, from our relative proximity to this intangible we call education for special librarianship. This is why we need to be especially careful to examine each point of view with respect in our search for truth.

Our situation, as we explore our points of view, reminds me of a story I read recently in a local newspaper. A young woman had abandoned her VW in the midst of traffic in a busy intersection, and she was in court to explain this unorthodox behavior. "I put my hand on the gearshift," she said, "and there, coiled around the stick, was a snake. It was as big around as a python and five feet long." This is not impossible in

Florida, but it is a bit unusual, and the investigating officer was quick to contradict her. "Your honor," he said, "it was a common garden snake, at most two-and-a-half feet long." In the confusion at the intersection the evidence had escaped, and so was

not available for verification. The judge, however, pointed out the discrepancy in the two stories and asked the young woman how she explained it. Her reply: "He was on the outside looking in; I was in the driver's seat with my hand on the snake!"

As a means toward the blending of the new content of documentation and the information sciences with the traditional content of librarianship, a new conceptual framework is proposed for the library school curriculum. Librarianship and information science, conceived as one field, is divided into three broad areas: books and reading (information and its uses), bibliography (intellectual access), and libraries and information centers. A core course and subsequent specializations, both conventional and unconventional, are suggested for each area.

## Documentation and Information Science in the Core Library School Curriculum

RAYNARD C. SWANK

A YEAR AGO in a paper "The Graduate Library School Curriculum"\* I suggested that, in incorporating the newer content of documentation and information science into the library school curriculum, we need to go all the way back into the core courses to take a new look at them in the light of important changes in librarianship itself. In it, I noted four changes in librarianship to which the curriculum must be adjusted.

First is the expansion of librarianship, with respect . . . to the range of functions within it and of interests without. By functions within I mean new or alternative or more intensive kinds of services—selective dissemination of information to readers, the delivery of photocopies to offices and laboratories, literature searching, and other activities of which many are embraced by the rubric "documentation." By interests without I mean other fields of information service, such as information centers

(as Weinberg defined them), data banks (in social and political fields), management information systems (in business), and command and control systems (in the military). . . .

Second, in this process of expansion, librarianship is again reaching out to other disciplines for new knowledge and methodologies. In the nineteen thirties we found new strength in the social sciences—sociology, education, communications, and statistics. Today, in the quest of advanced technologies, we are searching out mathematics, electronics, business and industrial management, linguistics, philosophy, and psychology.

Third is the emergence of additional, exacting specializations in librarianship, especially in the area of information science, including operations research, systems analysis, and mechanization.

And fourth is the development of librarianship itself as a more rigorous discipline. The growing complexity of the profession requires the discovery and application of more precise methodologies for the study of library affairs. . . .

The new content represented by these changes is impressive—the extension of li-

\* Sarah R. Reed, ed. *Problems of Library School Administration: Report of an Institute, April 14-15, 1965, Washington, D. C.* U.S. Office of Education, 1965, p. 20-27.

brarianship into new fields of information handling, the intensification of library services, the infusion of new knowledge and techniques from other disciplines, with emerging new specializations, and the evolution of a more exact library science. But let us never forget that the traditional content of librarianship is also impressive. The long experience and tested values of librarianship are still our most reliable and sophisticated resource for the solution of information-handling problems in most contexts, whatever additional help may now be needed. An imaginative curriculum revision will build upon this resource, explicate its values, and extend its application to information problems far from the four walls of the library.

### Blending Old and New

There are three ways of relating the newer content of documentation and information science to the older content of librarianship. First is the addition of specialized courses to the existing curriculum, as many schools are now doing. This is useful and expedient but achieves no basic integration. The old curriculum remains substantially untouched. Second is the offering of separate new curricula in information science that are parallel or alternative to the old curriculum, as a few library schools and the separate schools of information science are now doing. This approach not only fails of integration but actually emphasizes the apparent dichotomy between the new and the old. The third way, to which I subscribe, is the blending of the new content into a basically revised version of the old curriculum—or, if the converse pleases more, the blending of the old content into a basically new curriculum.

I prefer the integrated approach because I do not believe that information science is a field separate from librarianship. It is rather

a fresh insight into the nature of librarianship—an insight derived from broader concepts, more exact methodologies, and more varied applications. Its content cuts across the entire spectrum of librarianship and even penetrates the core curriculum. Like documentation, it is an extension of librarianship. The processes of collection building, organization, and utilization are, for example, common to all library and information systems.

Let us look back at the nature of librarianship and try to identify the broad areas of content that are common to all information-handling systems and to which documentation and information science are applicable. The conceptualization that works best for me divides the content into three main areas.

First are books and readers, including all forms of recorded knowledge and all manner of people who use it, both inside and outside the library or information agency. Second is the intellectual organization of recorded knowledge, including bibliography, cataloging, classification, and indexing of all kinds, regardless of origin or place of application. And third is the library itself, and other kinds of information centers, as institutions for the operation of book and information services. These three—recorded knowledge and its users, its intellectual organization, and the service agencies—are, I believe, comprehensive of both librarianship and information science.

### Of Books and Readers

The world of books and readers is conceived here broadly as the content, the substance, the meanings with which we are basically concerned. It is also the environmental aspect of libraries as institutions—the sources of policy and criteria for evaluation. Books to cover the whole panoply of forms in which information is recorded, including journals, technical reports, newspapers, manuscripts, films, and magnetic tape. Reading to stand for the full range of uses to which books are put, the scholarly needs they serve, their selection and dissemination. The emphasis in this area is on the content of the collection (or file) and on its scholarly origins and interpretation.

It might be argued that books and readers are two fields instead of one. I prefer to think



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of them as one, because I find it impossible to consider such functions as book selection and literature searching without simultaneous reference to both. The two merge in the concept of reading, or, more broadly, in the retrieval and dissemination of ideas and information from recorded sources. It is the interaction of writers and books and readers that is central to our purpose, regardless of how diverse our specializations may be.

This area relates also to the beginning and the end of the information cycle, to both the input and the output of a library or information system. The principles of book selection and literature searching are essentially the same for the acquisition librarian, the reference librarian, the information specialist, or the reader.

Specializations in this area, without reference to specific courses, may be broadly outlined as follows. First the history of books and printing and the field of rare books. Second are selection of books and the evaluation of collections, whether for acquisition or use. Third are reading interests and user studies, which branch out into the theory of learning, the sociology and psychology of communication, and the nature and methods of scholarship. Fourth is reference, which branches out into the various fields of subject literature specialization; specializations by forms of materials, such as government documents, technical reports, and audio-visual materials; and specializations by reader levels, such as children's and popular adult literature. The term reference is used here not simply to denote a familiarity with dictionaries, handbooks, encyclopedias, indexes, and the like, but more broadly the knowledge and exploitation of book collections and information files, including the tools of their organization, the strategies of seeking out the desired resources, and the methods of their dissemination.

To this entire area of librarianship there is an introductory or core content that I wish could be shared by students in all specializations, for the purposes of perspective, of understanding the relationships between one's own specialization and those of others, and of communication among the specializations. This would be an introduction to the major forms and movements of publication that fill up libraries and information centers, includ-

ing their origins in the history of scholarship and the scholarly uses to which they are put. It would not be just the history of the printed book or the rise of the technical report, though it would include something about each. It would treat of the beginnings and present status of the scientific journal, the uses of microforms and audio-visual aids, the purposes of government documents, and the acceptance of newspapers as historical evidence. It would touch upon current changes in the concept of publication, as texts begin to be reproduced in single copies upon demand from microforms, just as the concept was changed in the fifteenth century from the production of single to multiple copies by the new technologies of printing. The survey though necessarily superficial in many respects, would try to make certain that librarians, documentalists, and information scientists alike share a broad view of the full range of library resources and the manifold reasons for their existence. While a course such as this might be impractical, and certainly difficult to teach, it does represent an approach that ought at least be explored.

## Of Organization

The second broad area is the intellectual organization of recorded knowledge—the bibliographical schemes within which the content and meanings of books are arranged and described for retrieval. These are the intellectual road maps of the world of books and reading. Included are all varieties of classifications, vocabularies, catalogs, bibliographies, and indexes, whether applied in manual or mechanized systems. Indeed, the theories and principles of bibliography, as the broadest term available for this area, are separable from the technologies of particular libraries or information centers. Also, the design and preparation of bibliographical schemes, which are the main concerns of this area, are separable from the methods of utilizing those schemes at the point of reference and retrieval.

The specializations in this area include notably the field of enumerative bibliography, and especially subject bibliography, as well as library cataloging and classification, the many special indexing schemes, such as coordinate, citation, and key-word-in-context, and the systematic study of problems com-

mon to all types of file organization, such as the derivation and control of subject headings, or descriptors, and the measurement of relevance. Here especially do the disciplines of logic, mathematics, and linguistics come into play.

For a core program in this area I would suggest a comparative introduction to the many species of bibliographical schemes. This would define the elements that are common to all schemes and explore the variations in the treatment of those elements for different bodies of recorded knowledge, different groups of readers, and different uses. Some of these elements are 1) the scope or coverage of a catalog, index, or file—what it really contains; 2) the scheme of intellectual organization, which may be broken down into a) the principles and concepts of classification used, b) the derivation and control of the terms applied to the concepts, c) the order or arrangement of the terms, as in alphabetical, hierarchical, coordinate, and random schemes, and d) the notations or codes that facilitate filing and searching; 3) the rules of entry, that is, the choice of books or information that are represented under particular concepts or terms, as in specific, analytic, or generic entries, and including depth of indexing; 4) the fullness of description, that is, what is told about a book or an item of information when it is entered under a term, and this includes abstracting, and finally 5) the physical attributes of the scheme, its form, the ease of scanning, the method of cumulation, and so on. These are all variables that must be measured or controlled in the evaluation of any bibliographical scheme, however ancient or ultra-modern.

It should be noted that each of these elements, except the last, comprises a continuum from broad to narrow, general to specific, complete to selective, or complex to simple, and that every bibliographical scheme represents a point on each continuum—a scope and completeness of coverage, a detail of vocabulary, a specificity of entry, and a fullness of description. The core program would introduce students to the nature of these elements and their continuums, compare their applications in selected bibliographies, catalogs, and indexes of widely different kinds and purposes, and analyze the reasons for the differences observed. In this way the ele-

ments of bibliographical organization should come clear to all students, whether they specialize later in library cataloging or automatic indexing, and a common theoretical basis for the comparison and evaluation of all schemes would be laid.

### Of Institutions

In the third area are the institutions that operate information services—the libraries, information centers, data banks, or whatever other forms they might take. This is the engineering and administration of library and information systems, including both manual and mechanized technologies and the integration of human and machine capabilities. It is the institutional manifestation of books and their intellectual organization for service to particular communities or types of readers.

Specializations in this area begin with the history of libraries and other information handling agencies. There follow the general administration and management of these agencies, including 1) organization, staffing, and control, 2) line operations, such as order work, reference service, and circulation, and 3) staff functions, both internal and external, such as systems analysis and mechanization, and product research and public relations. Finally specializations by types of communities served—academic, public, state and national, school, business, industrial, governmental, and many others. These treat of the books and other resources and the kinds of bibliographical organization, as well as the institutional forms, policies, procedures, and services, that are peculiar to their own specific communities of readers.

The best core program in this area would probably be an introduction to the various types of libraries and information centers—their history, the characteristics of the communities served, their social or scholarly goals, the kinds and levels of the services they perform, and the peculiarities of their administration, management, and operation. This might sound like the traditional, and often berated, "introduction to librarianship" that takes up the several types of libraries one by one, competitively, and conveys no meaningful relationships among them, but I have something different in mind. On the one hand, the program would cover information centers, data banks, and the like, as well

as conventional libraries. But more importantly, it would follow a topical outline in drawing comparisons among the several types of institutions. There would be less emphasis on the types of libraries as such as on the diversity of scholarly and social environments, the wide range of reading interests and needs, and the different extensions and intensions of service that explain the institutional forms that libraries take. With this background, a student could move on into general administrative or technological specializations and to specializations by type of library with an early appreciation of the environmental variables upon which the design of all information systems should rest.

These three core programs, then, suggest a basic curricular structure that might bring the older content of librarianship and the newer content of documentation and information science into a rational and mutually constructive relationship. In the area of books and readers, or of information and its users, there could be a survey of the major forms and movements of publication, their origins in the history of scholarship, and the principal uses to which they are put. In the area of the intellectual organization of recorded knowledge, there would be a comparative study of catalogs, bibliographies, and indexes, both conventional and unconventional, with respect to common variables, such as scope, vocabulary, entry, and description, and with emphasis upon the treatment of those variables for different purposes. And in the area of libraries and information centers as institutions, there would be a topical comparison of institutions by their origins, the types of communities served, the kinds and levels of service required, and other environmental factors that determine the design of information systems.

I have suggested also some of the specializations in each of these three areas, and there are both conventional and unconventional specializations in each. The subject literature specialists, for example, would concentrate in the first area, along with reference and acquisition librarians and researchers in the scholar's use of books and information. Library catalogers would concentrate in the second area, along with bibliographers and coordinate indexers, and researchers in file organization and the measurement of file op-

erating effectiveness. The managers and operators of libraries and information centers would concentrate in the third area, along with personnel directors and data processors, and researchers in the design of information systems. The specialists by type of library—the academic, the public, the industrial, the school, and so on—would look back over all three areas as they relate to the design of institutions for service to particular communities of readers.

### Some Implications

There are three implications of this approach that would have to be reckoned with in a detailed curriculum revision.

First is the likelihood that, after the core programs had been taken, students who were specializing in fields other than the practice of conventional librarianship could probably not be required to take as much library cataloging and reference as some schools now require. Beyond a certain point, these traditional courses would have to be viewed as elective specializations that are parallel to other elective specializations, such as indexing and literature searching in science and technology. To all specializations, including conventional librarianship, the new core programs would provide general introductions.

Second is the certainty that no such curriculum as is here envisaged, with extensions backward into still more generalized introductory courses and forward into still more intensive specializations, could be completed in one year of graduate study. At least a full quarter of newly organized content would precede the beginning of the present curriculum, and the subsequent programs in at least the new specializations would have to be expanded. My guess is that we would have to plan for two full years of graduate study for the basic professional degree.

And third is the probability that undergraduate, or even graduate, subject prerequisites would soon have to be specified for some specializations, particularly those that emphasize subject literature fields or use unfamiliar techniques from other disciplines.

Librarianship could become a deeper and broader discipline if its basic studies were first detached from institutional applications and then adapted to the widest range of service situations and technologies.

Information Science interfaces with the library primarily through the technology. However, the scientific base is an important context within which librarianship as an academic discipline must be embedded. There are five areas where information science and technology interact with librarianship and library education: systems analysis; environmental context; information channels; the naming, labelling, or classification process; and the man-system interface. The major effect that information science will have on librarianship will be strategic rather than substantive. Library schools now have the opportunity to lead the profession. Concomitant with this effort will be a fundamental change in the profession, both as it is taught and as it is practiced.

# The Interfaces Between Librarianship and Information Science and Engineering

ROBERT S. TAYLOR

Shannon and Wiener and I  
Have found it confusing to try  
To measure sagacity  
And channel capacity  
by  $\sum p_i \log p_i$ .

*Behavioral Science*,  
Vol. 7, p. 395 (1962)

LIKE THE Vermont (or pick your state) farmer who, when asked if he believed in baptism, replied, "Why, sure, I seen it done," the layman "seen it done" at the World's Fair two years ago. But that was merely a small but artful demonstration of what a library might look like and do. It said nothing about the intellectual apparatus necessary to support a true library system of this type, nor of the technology and systems knowledge required. It is this support, i.e., information science, and its interaction with

librarianship that concerns us here. It is necessary first however to clarify some misconceptions as to the role of information science.

Librarianship and related professions tend to view the information sciences as concerned solely with their information-processing activities. This is confusing the application with the science. Information science is not concerned with the development of information-handling systems, but rather with the explication of system and environment. In contrast, information engineering deals with the design of systems for handling messages, both in real time and retrospectively. Both are concerned with the generation, organization, storage, and dissemination of messages, but for different purposes. It is through the technology that the science interfaces with the library. The information revolution implied in this technology is very real and highly pertinent to all forms of librarianship and to the library schools.

A second misconception is that information science and engineering is generally viewed, in its relation to libraries, as directed only toward retrieval or management information systems, and serving a rather small segment of interests. This view, properly so, has tended to restrict its impact on library schools, and is dependent principally on the view that libraries have of themselves and



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*in the information sciences supported by the National Science Foundation, under grant number GE-2569.*



the image (factual or otherwise) that administrators have of libraries. Despite the rhetoric, libraries still tend to be warehouses. Within this context, it may be necessary to broaden this image, to include information switching centers, built not around a storage mechanism but a dynamic interchange or network both of libraries and of people.

There are five areas where information science and technology interacts with librarianship and library education: systems analysis; environmental context; information channels; the naming, labelling, or classification process; and the man-system interface. These are not mutually exclusive categories, but convenient pigeonholes for discussion.

In *systems analysis*, we are concerned with the design and development of models and simulation techniques for studying the library, parts of it, or larger configurations such as the library nets implied in EDUCOM. It would be a mistake to view the automation of library processes as a major objective of this category of study. In fact, automation in libraries will have a more important result than mere mechanization. The real benefit will come in the sophisticated systems insight we gain of libraries, their services and processes. This will give not only a better body of systems data for prediction, but will also allow the library to be understood in the larger communication context as a social institution in the educational, cultural, and innovative process. And how can this be reflected in library education? Systems courses should be primary vehicles for teaching an attitude or approach to certain library problems. As such they should not be mere how-to-do-it or equipment courses or automation courses.

In considering the second area, that of *environment*, we are primarily concerned with the social contexts and social processing of knowledge, with the requirements of various segments of society, and indeed of various types of societies and levels of technological development. No one, to this writer's knowledge, has touched, for example, the extremely important problem of the relationship between *a*) information resources and services, and *b*) technological development, and *c*) cultural attitudes toward information, knowledge, and education. As we become concerned with service to the "cul-

turally deprived" or with information in support of technologically emerging countries, this question is of crucial importance. It may, as Marshall MacLuhan implies, require a total change from the hot linearity of a book-based culture. Library schools consequently should be deeply involved in these changes. Libraries as institutions, like individual human beings, operate in a sea of information, selecting, organizing, and storing items on some presumably rational basis. New insights to this context are being gained through communication theory and through the inchoate sociological models of information processing systems.

In discussing *information channels*, it must be realized that libraries in the past have been centered around only one channel—the published literature. The advent and growth of special libraries, of document and information centers independent of the library, and of educational materials centers—all of these outside the library tradition—imply that librarians, by consciously or unconsciously limiting themselves to one form only, the book, have excluded themselves from much of the dynamism affecting the formal communication of information. Even the word documentation itself implies a restricted form, regardless of the connotations that have accrued around the word. It may be that this form restriction is a major constraint on librarianship. It tends to emphasize the grocery-store aspects of the profession, rather than the substantive aspects.

It should be apparent that the packages handled by librarians in which information, factual or fanciful, comes in are no longer the major channels of communication. Indeed, historically speaking, it is debatable whether the book ever did occupy an important position in the democratic sense. It appears that most of the scientific communication takes place outside the library and that libraries never did serve the engineer.\* The development of educational materials centers

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\* R. S. Taylor, editor. *Information management in engineering education. Proceedings and recommendations* of the Conference on Information Sources, Systems and Media in Engineering Education, held at Lehigh University, May 19-20, 1966. Sponsored by the American Society for Engineering Education and Lehigh University. Bethlehem, Pennsylvania, August 1965.

in elementary and secondary schools seems to be taking place outside the library, or at least the librarian is a passive rather than an innovative participant. The beginnings of Dial-Access and Computer-Assisted Instruction systems in schools and colleges are developing with very little interest by either librarians or library schools.† Where it does appear, as in the *Library College Newsletter* (no. 7, July 1966) and in conferences at Jamestown and Drexel, it is almost a bootleg operation, a most heartening one. It should be noted however that many major technological innovations started out as bootleg operations.

Study and innovation in the *naming, labeling, or classification process* has, with some notable exceptions, passed out of the hands of librarians to the logician, the linguist, and the mathematician. Recent trends, however, indicate that this may be moving back into the library schools. It would be ironic, however, if this should happen at the moment when on-line system development and related dynamic innovations should make static classification and indexing concepts archaic. This illustrates the interrelationship of these areas. One cannot deal effectively with the naming process without seeing it in the context of interaction between the system and the user. Despite lip service to the user, at present it is he who must adapt, not the system.

Under the rubric, the *man-system interface*, we are concerned with the whole series of interactions that take place between the user and whatever side the system turns toward him. This may be the card catalog, an index, a C-R-T display, a reference librarian, a book. As a latter-day reflection of recent concern with the human side of this interface, this can range from human factors engineering to studies of self-organizing systems, from informal communication nets to question-answering systems. The present response of library schools to this area are courses on reference sources and readers' services. As yet, very little attention has been paid to the dynamic processes involved.

† See, for example, *Dial-Access Information Retrieval Systems for Education Newsletter*, published by the Center for the Creative Application of Technology to Education, College Station, Texas.

With all of this it is important to remember that the library is but one application of information science. However, if we use a generic concept of librarianship, as encompassing the processing and dissemination of formalized messages, embedded in a larger communications context, librarians will have more freedom of movement and a more effective and realistic pedagogical and academic position.

The profession prefers to think of itself as rooted in a humanistic tradition. Those ties, in reality, have become increasingly weakened over the past fifty years by the attention paid to techniques and specialized operation. Much of the ferment and dissatisfaction of the past ten years, the growth of documentation and information science and engineering, have been part of the search for a base. This base must be intellectually satisfying and academically acceptable, and must serve to break down the specialization of library types. A new set of specializations, based on new technologies and new views of the library, must begin to develop. It is possible that these new specializations already have developed without the knowledge of the schools.

The major effect that information science will have on librarianship will be strategic rather than substantive. This is not cynicism, but rather an acknowledgement that meaningful and permanent substantive change in professional education only comes from a position of academic and political strength, and that the impetus for change comes either from the professional fringes or from outside the profession entirely. The center does not change unless forced to.

Based on this as background, four observations on this interface can be made. The first is that information science offers a much broader view of librarianship. The breadth, admittedly, might spread it too thin. However, careful choice of meaningful areas of concentration will serve as points of development. In a pedagogical sense, information science implies a movement away from technique courses and very possibly toward an entirely new curricula grouping based on the types of processes discussed in this paper, rather than types of libraries.

The second is the sense of dynamism, of involvement in the beginnings of what will

be a major change in our culture, as profound as the typographic revolution of the Renaissance. Librarians and library schools must not only be knowledgeable about relevant technological and scientific changes, but must participate in them.

Thirdly, perhaps more than anything else, library schools need laboratories and experimental systems where equipment can be used and evaluated in operating situations. Some portion of library school graduates must be completely immersed in experimental systems design.

## LTP Reports to SLA

### Automation Survey

A report on the survey of data processing equipment prepared for the Documentation Division of SLA and the Library Technology Program by Creative Research Services, Inc., has been printed. The survey was made primarily to serve the purposes of the SLA Division and LTP as a first step toward identifying library functions that are automated and places in which they are operational.

Orders for the survey, entitled *The Use of Data Processing Equipment by Libraries and Information Centers*, should be sent to the Library Technology Program, 50 East Huron St., Chicago 60611. Payment, in the amount of \$10.00 a copy, should be made payable to the American Library Association. Payment in advance would be appreciated.

The report includes detailed tables showing libraries using electronic accounting machine equipment and automated data processing equipment, analyzed by function and type of equipment employed. An article based on the report will appear in an early issue of *Special Libraries*.

### Library Technology Reports

A report on electric erasers is one of the features of the January issue of LTP's *Library Technology Reports*. The new report supersedes all material on this subject published previously in the *Reports*. The January *Reports* also carries an evaluation on the Recordak Filmcard Reader Model PFC-66, a report on the new Chiang Stencil Duplicator, and a summary of a survey of the users of

The final observation has to do with the reverse side of this interface. In order to direct information science and technology to his interests, the librarian must define his problems in management, resource allocation, decision-making, processing, dissemination, and services.

Library schools are beginning to have the opportunity to lead the profession in ways never available before. However, concomitant with this opportunity is a fundamental change in the profession, both as it is taught and as it is practiced.

the Cardmaster Card Duplicator. A new contract in the amount of \$44,000 has been signed with Buyers Laboratory. The contract covers new testing and republication rights to reports on additional testing done by the laboratory in its own program.

### Library Furniture Manual

An extension and expansion of the project, begun several years ago, to produce a manual on library furniture, is under way. The new approach will include a wider range of equipment and furniture for libraries than the earlier project did. The project is being funded by a new grant of \$13,976 from the Council on Library Resources.

Donald Bean, a consultant on library planning and construction, will prepare the manual. Subjects to be reported on in the manual include: the nature of basic library equipment; manufacturing methods for wood furniture, metal equipment, and upholstery; preliminary steps in the purchasing procedure; obtaining quotations or bids; selecting contractors; completing the purchase; and delivery and installation problems.

Scheduled completion date for the project is December 31, 1968.

### LTP Annual Report

Interested persons may request individual copies of LTP's Seventh Annual Report from LTP. A limited supply is available.

MRS. GLADYS T. PIEZ, General Editor  
Library Technology Program  
American Library Association, Chicago

# To the Beginners Belong the NLW Spoils

Enthusiasm more than beginners luck netted the Research Division Library of Waddell & Reed, Kansas City, Missouri, top honors in the 1966 SLA National Library Week Publicity Contest, sponsored by the General Motors Company, who furnished a \$75 first-prize check to the Heart of America Chapter.

WADDELL & Reed's Continental Research Division Library is a relatively new addition to the company and takes a genuine interest in the individuals who are most closely involved. We, the library staff, feel that if others are to take notice of the library, first we must give them a reason.

Our library is run quite efficiently, and we feel that it is worthy of acknowledgement, use, and recognition.

Our theme, READ, was that of National Library Week, and our main objectives were:

1. to introduce the entire company, not only our division, to the library
2. to create a *working* knowledge of the large scope of information housed within our ever-expanding boundaries
3. to encourage the use of the library not only for this particular week but for the entire year
4. to stress the point that to read is to grow, and the employee as well as the company must grow

We began the week by handing out ink blotters. To have the blotters personally delivered seemed to be a more friendly and casual gesture.

We were fortunate to have the help of the publicity department in the publication of an article concerning the history, material, and use of the library, and the members of the staff. The article was printed in the company paper preceding NLW. An article also appeared in the monthly paper distributed to all branches of the company.

A new poster was displayed every day outside the library entrance; this created interest and enthusiasm in that people came by the library to see what each day's poster would be.

Our patrons consist chiefly of analysts, fund managers, secretaries and statisticians,

and the library plays an important role in the work of all of these people.

National Library Week was a brilliant success. People realize that the library is important and efficient and that it is a necessity if everyone is to work with unity. It has become a realization that the library is not only a storage bin but also an ever-growing nucleus of the company.

SYLVIA ALLBRITTON, Librarian

## "The Word Is Out That Reading Is In"

So says the National Library Week Steering Committee. For the theme of the tenth anniversary Week, the dual motifs of EXPLORE INNER SPACE—READ and READING IS WHAT'S HAPPENING have been chosen.

April 16-22 has been designated National Library Week for 1967, and price lists and order forms for posters, streamers, bookmarks, and mobiles will be available after January 1 from Promotion Aids Brochure, National Library Week Program, One Park Avenue, New York 10016, to help tell the story.

Within the framework of the overall effort to bring about a better-read, better-informed America, the NLW Steering Committee also identified two specific areas to be emphasized during the coming program year: the recruitment, education, and effective placement of professional librarians; and the concept of total community access to a variety of reading resources for information as well as enjoyment.



## 1967 CONVENTION

# An Invitation

IT HAS BEEN too long since the Special Libraries Association has had its Annual Convention in New York. There have been great changes in the city since we met here in 1952 at the Statler Hotel. That hotel has now been absorbed by the Hilton chain and Pennsylvania Station is being torn down to make way for Madison Square Garden. Sorry, the Garden won't be ready for you in May, but the trains will be weaving their way underneath the construction.

The 1967 Convention—May 28 to June 2—is moving north to another hotel and another terminal, which luckily still stands. The hotel is the Commodore and the terminal you all know is Grand Central Station.

A warm welcome awaits you in the host city.

New York is so many things, and has special libraries relating to most of them, that we thought we couldn't choose a better theme for the Convention than that of the Special Libraries Association itself—"Putting Knowledge to Work." We are trying, as all loyal and patriotic convention committees do, to represent some of our city's infinite variety in the program.

One of the highlights of the convention will be the keynote speaker at the opening general session—Thomas P. F. Hoving, Administrator of Recreation and Cultural Activities, a medieval scholar turned public servant and apparently loving it. Also, we're planning a tour of Lincoln Center, just completed this year, and in conjunction with it an evening concert at the new Philharmonic Hall. The annual scholarship benefit being arranged by the Metals/Materials Division will be that famous boat ride around Manhattan Island, replete with what European visitors call "those wonderful sausages."

In the broader vein there will be a general session on the meaning of automation to all of us. Divisions have not only been planning programs and visits in their specialties, but also some exciting joint sessions on subjects of wide interest such as World Population, Patents, Microforms, and the Financial Problems of Special Libraries. And there will be a formal luncheon instead of a banquet.

New York has been affectionately dubbed "Fun City" by our Mayor. For this reason we have left some evenings free to enjoy "Gay Gotham" to the hilt, and the innumerable opportunities for pleasure and culture which it has to offer.

Your host Chapter—New York—looks forward to greeting all of you in New York for the 58th Annual Convention of the Association.

JAMES HUMPHRY III  
Convention Chairman



Miss McGowan



Mr. Berry and Miss Stoops



Miss Dodge

## COMMITTEE CHAIRMEN

### Convention Chairman

JAMES HUMPHRY III, Chief Librarian  
The Metropolitan Museum of Art

### Deputy Chairman

MRS. VIVIAN D. HEWITT, Librarian  
Carnegie Endowment for International Peace

### Program

ELIZABETH FERGUSON, Librarian  
Institute of Life Insurance

### Treasurer

KATHERINE DODGE, Librarian  
McCann-Erickson, Inc.

### Assistant Treasurer

THEODORE SLATE, Librarian  
Newsweek Magazine

### Exhibits

DOROTHY L. MCGOWAN, Research Librarian  
Compton Advertising, Inc.

### Hospitality

ELEANOR K. IRWIN, Librarian  
Union Club

### Information

MRS. ELEANOR F. STEINER-PRAG, Editor  
American Library Directory  
R. R. Bowker Company

### Local Arrangements

FRANCES J. BROWN, Head, Financial Library  
First National City Bank

### Meals and Banquet

LOUISE STOOPS, Librarian  
United States Steel Corporation

### Printing

JEAN DEUSS, Reference Library  
Federal Reserve Bank of New York

### Publicity

JOHN BERRY  
R. R. Bowker Company

### Registration

JANET M. RIGNEY, Asst. Librarian  
Council on Foreign Relations, Inc.

### Transportation and Tours

ROBERT M. BROOKS, Librarian  
Donaldson, Lufkin, & Jenrette, Inc.

## NEW YORK CHAPTER OFFICERS

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Engineering Societies Library

### President-Elect

JANET M. RIGNEY

### Treasurer

LEE W. TRAVEN, Librarian  
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VIRGINIA M. BERSAGEL, Assoc. Librarian  
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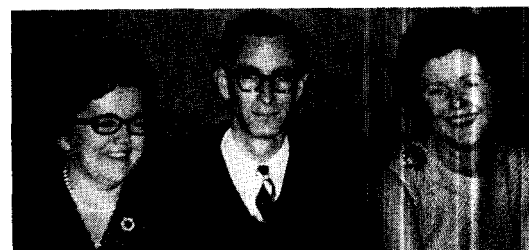
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Miss Deuss, Mr. Brooks, Miss Regan



Miss Brown, Mr. Traven, Mrs. Steiner-Prag

# SLA Staff Appointments

MARGARET M. PRICE, CPA, became Director of the SLA Fiscal Services Department on December 12, replacing Daniel A. Sipe, Acting Director interim. Miss Price is a 1950 graduate of Fordham University in New York City. She holds a B.S. in accounting and is currently working on prerequisites for an M.B.A. at College of the City of New York. Miss Price received her certificate as a Certified Public Accountant in May 1966, and has done independent accounting work during and after college. Prior experience was with Johnston International Publishing Corporation, Arthur Andersen and Company, Clarke Oakes & Greenwood, and William Sloane Association. Miss Price makes her home in Manhattan.



MARGUERITE VON GEYR, who has been a part-time bibliographer for *Special Libraries* during the past several months, became Publications and Public Relations Assistant on January 1, 1967. Miss von Geyr is a graduate of the University of Leipzig, majoring in languages and political science and minoring in journalism. She has done graduate work in Irish history and political science at Trinity College in Dublin, and Cork City College, Ireland. She has had a variety of editorial, translation and other business experience in Europe and the United States, and her most recent position before coming to SLA was as Administrative Assistant for the ASA Sectional Committee Z39. Miss von Geyr has also been Assistant Editor and Executive Secretary to the Director of the Book Editorial Department at Colliers Encyclopedia and Assistant to the Dean of the Pratt Institute Library School. Miss von Geyr has been a resident of Greenwich Village for several years.



EDYTHE C. PORPA (see photo at left), former Publications and Public Relations Assistant, is currently at the University of Colorado, Boulder, working toward a Ph.D. in anthropology. Miss Porpa recently received her M.A. degree in anthropology from Hunter College of the City of New York. She has been at Association Headquarters since April 1962 and a resident of the Village for many years.

## Rio Grande's H. W. Wilson Company Chapter Award Entry 1966

The Rio Grande Chapter interpreted The Special Librarian—Vital Communications Key more as a vital link, sometimes first in the communications chain and often holding other links together. We decided early that one of our most effective communicational services in the Rio Grande area would be performed through aggressive contact with the leaders of various organizations.

The Governor's Second Annual Conference on Industrial and Economic Development, October 7-8, 1965 (number of conferees 400). New Mexico's Department of Development invited the Chapter to prepare an exhibit for the Governor's Conference. Emphasis was placed on the Association and Chapter publications and services.

New Mexico Department of Develop-

ment. Two conferences were held during October 1965 by the Chapter President and two members with the Director of the New Mexico State Division of Industrial Development on methods of lifting the economy of small communities through the establishment of special libraries or the expansion, on a funded basis, of existing libraries.

Regional Workshop on the Report Literature, October 30-November 2, 1965 (number of conferees 100). This workshop was sponsored jointly by the Rio Grande Chapter and the Science-Technology Division of the Special Libraries Association. More than one hundred registered for the workshop, most of whom represented government agencies or government contract industries. However, about 10 per cent were from college and university libraries.

Hosts for the SLA Midwinter Meeting of the Board of Directors and the Advisory Council, January 20-22, 1966 (number of conferees 80). The Rio Grande Chapter was host to some eighty Special Library Association officers. This helped to impress the significance of libraries on the community through releases to the news media and served to familiarize special librarians from around the country with the work of this Chapter.

The American Legion's Western Area Economic Conference, January 28-30, 1966 (number of conferees 150). Representatives from fifteen states attended the American Legion's Western Area Economic Conference in Albuquerque. The need for special librarians was brought to the attention of the 150 conferees by three members of the Chapter who manned our display and distributed materials appropriate to the Conference.

Joint Meeting of the New Mexico Library Association and the Rio Grande Chapter, March 30-April 1, 1966 (number of conferees 160). The Chapter has scheduled one meeting each year to coincide with the annual meeting of the New Mexico Library

Association. Such joint meetings help keep open communication channels with the secondary school, public, and academic librarians of the state.

Southwestern Union List of Serials. This is a regional union list of serial holdings as reported by the twenty-four participating libraries in New Mexico and El Paso, Texas. SWULS was sponsored by the Rio Grande Chapter, Special Libraries Association and the Albuquerque Library Association and published December 1965.

Radio and Television Interviews. Chapter cooperation was offered to the New Mexico Library Association and the New Mexico State Committee for National Library Week. As a result, a video-taped interview with a panel of four librarians was broadcast by two Albuquerque stations (KOB-TV and KNME-TV) on April 21, 22, and 24. The work of special libraries was emphasized. A radio interview was held with one Chapter member and broadcast by KOB on April 18. Another live radio interview with one Chapter member was broadcast by Station KGGM on April 19. Radio listeners of this last interview were given the opportunity to phone in questions for immediate answers.

NASA Technology Applications Center. During the year a NASA Technology Applications Center was established in Albuquerque. Consultations between three Chapter members and the Center's Director were held to guide the Center in the growth of its research resources and services and to indoctrinate its officers in the library resources available throughout the Chapter area.

Services of libraries in general and special librarians in particular were brought home to many not previously aware of them. Vital contacts, made with the leaders and members of these organizations, should result in future cooperation. Our aim to improve access to information resources in the Chapter region and to encourage their use by a wider audience was met.



# *This Works for Us . . .*

## Photocopying for Routing Slips

When we faced the problem of too much work at the Circulation Desk—not quite enough to hire an additional hand and too much for the present staff—we began to re-examine some of our existing procedures.

Our immediate need was to speed up the routing of over five hundred periodicals to some three hundred technical staff members. We were using a two-part charge form, a blue slip (self carbon) and a white card, with a perforated tear-off top. For each copy of each periodical circulated, a staff member wrote or typed the title, copy volume, number, date, and date charged, along with names of individuals to whom the journal would circulate. The blue slip was stapled to the journal cover. The white card was counted and filed in the circulation file. When the periodical returned to the library, the slip was removed from the cover, the charge card pulled from the file, and the journal returned to the shelf. Time-consuming steps were 1) listing the names for routing, 2) filing and pulling the circulation charges, and 3) shelving.

Our first step was to eliminate the filing and pulling of individual charge cards for journal routing. This meant we had to assume a journal was routed if not on the shelf, or not charged out. However, we did keep a master charge (using the second part of the charge form only) noting title, copy number, and names. Since routing was done all within one building, journals could be tracked down and retrieved when necessary. This saved us one hour of staff time a day.

Our next step was to reproduce routing slips from the master charge. With in-house facilities, multilith plates were made on the Xerox machine. Copies were run off on a 1250 multilith and cut to the size of the original master. This provided two weeks of routing slips for dailies, four months for weeklies, and over a year for monthlies. Minor changes could be made in ink. More than one change called for a new master card to be typed and sent to reproduction. Routing slips reproduced in this way saved another hour of staff time each day.

Now a routing slip is completed by adding volume, number, date, and date routed. When the journal returns, no charge needs to be pulled, the routing slip is removed and the journal is shelved.

### Routing slips required:

20 dailies	5000 slips per year
55 weeklies	2860 slips per year
45 semi-monthlies	1118 slips per year
170 monthlies	2040 slips per year
72 bi-monthlies	432 slips per year
143 quarterlies	572 slips per year
4 semi-annuals	8 slips per year
1 annual	1 slip per year
<hr/>	
510 periodicals	12,031 slips per year

### Estimated cost in reproduction:

Plates	\$46.00
Xerox	9.00
Paper	5.00
<hr/>	
Total	\$60.00 per year

### Estimated time:

#### Used in Reproduction:

1 hour for 600 slips  
20 hours for 12,000 slips

#### Saved in Library:

2 hours a day  
500 hours a year

MRS. RUTH S. SMITH, Chief  
Open Library  
Institute for Defense Analyses Library  
Arlington, Virginia

# Have You Heard . . .

## LC Recordings Catalog Study

The Library of Congress recently received a \$3,000 grant from the Council on Library Resources, Inc., to study the feasibility of creating a master catalog for its Archive of Folk Song through the use of computer technology. It is expected that the use of automated methods will permit cataloging in greater depth for each item and that the master catalog could be used to produce bibliographies and a variety of other reference tools.

## Large Type Weekly Edition of "Times"

Starting March 6, 1967, the New York *Times* will publish a Large Type Weekly edition for readers with limited vision. The 24-page tabloid-size newspaper will contain specially edited material from the regular editions of the *Times* and is available on a subscription basis only. The one-year rate is \$29, and nine-month, six-month, and three-month subscriptions can also be purchased. There will also be a 25 per cent discount on ten or more subscriptions going to the same address. Orders can be sent to the Large Type Weekly, Times Square, New York 10036.

## Library Assistantships and Traineeships

The University of Florida Libraries is offering several graduate assistantships for the 1967-68 academic year, primarily for practicing, professional librarians interested in study leading to a master's or doctoral degree in a subject field other than library science. Stipends of \$2,400 are awarded for a nine-month work-study period, requiring fifteen hours of library duty per week. Holders of assistantships are exempt from out-of-state tuition fees but pay resident registration fees. Applications, which must be returned by February 15, may be obtained from the Director of Libraries, Gainesville, Florida 32601.

Four traineeships in medical librarianship for 1967-68 are being offered by the Biomedical Library, University of California Center for the Health Sciences, Los Angeles 90024. The one-year work-study program

has been approved for level II certification by the Medical Library Association. Applicants must be United States citizens and hold master's degrees from American Library Association accredited library schools. Applications, which have a March 15 deadline, may be obtained from Louise Darling, Librarian.

## Coming Events

A CONFERENCE ON LIBRARY SCHOOL TEACHING METHODS: EVALUATION OF STUDENTS, sponsored by the Graduate School of Library Science and the Division of University Extension, University of Illinois, will be held April 9-12, 1967, at the Illini Union on the Urbana campus. This conference for teaching faculty and administrative officers of library science programs is limited to ninety participants, and the registration fee, which includes Sunday dinner, is \$30. Applications and further information are available from Conference Supervisor Timothy Sineath, 112 Illini Hall, Champaign, Illinois 61822.

The American University's INSTITUTE ON VITAL RECORDS PROTECTION, sponsored by the Center for Technology and Administration in cooperation with the National Archives and Records Service and the Association of Records Executives and Administrators, will be held February 13-16, 1967, at the National Archives Building. The tuition fee is \$150 and includes background materials and a final luncheon. For further information write to the Center at 2000 G Street, N.W., Washington, D. C. 20006.

## SDC Storage and Retrieval System

BOLD (Bibliographic On-Line Display), a document storage and retrieval system designed by System Development Corporation, Santa Monica, California, allows a user to communicate directly with the computer to receive data from the stored document collection. The user, located at a station equipped with teletypewriter and display, communicates with the system in a language approximating everyday English, which results in showing him the major categories of infor-

mation in the collection. Then a user can request additional subcategories and browse within a general or specific area of interest. Document titles, authors, reference numbers, and abstracts can be requested.

### Members in the News

LOUIS CANTER, formerly Manager, Library and Information Services, General Dynamics-Convair, San Diego, is now in the newly created position of Manager, Library Section, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California.

JOSEPH DAGNESE, Assistant Director of Libraries for Technical Services, Massachusetts Institute of Technology, has taken a one-year leave of absence to head the reorganization of the Library at the Birla Institute of Technology and Science, Pilani, India.

MELVIN S. DAY, formerly Director of the Scientific and Technical Information Division of the National Aeronautics and Space Administration, has been appointed Deputy Assistant Administrator of NASA's Office of Technology Utilization.

RICHARD HELFMAN, former Assistant Reference Librarian at the Engineering Societies Library, New York City, has been promoted to the position of Assistant Head of the ESL Reference Department.

JEROME S. RAUCH, former Librarian at the New Jersey College of Medicine and Dentistry, Jersey City, has been appointed to the newly created position of Director of the Medical Library at the University of Pennsylvania School of Medicine, Philadelphia.

EMIL SCHAFER has recently been promoted from Assistant Head to Head of the Electronic Properties Information Center that Hughes Aircraft Company operates in Culver City, California, for the Air Force Materials Laboratory.

JOHANNA TALLMAN, Engineering and Mathematical Sciences Librarian, UCLA, is on a six-month Fulbright grant in Brazil where she will give a course on scientific documentation and the literature of science and technology at the Brazilian Institute of Bibliography and Documentation, Rio de Janeiro. She will also help set up a library for the School of Cultural Communications at the University of Sao Paulo.

### Documentation System for Nuclear Science

The Centre for Information and Documentation of the European Atomic Energy Community (EURATOM) has inaugurated an automatic documentation system covering nuclear science and technology. Bibliographical references from more than 400,000 sources can be retrieved and a photocopy of the abstracts can be sent to the requester.

### Catholic Book Week in February

Involvement Today—for Tomorrow is the theme for the national observance of Catholic Book Week, February 19-25, sponsored by the Catholic Library Association. Catholic Book Week kits are available at \$2.00 each from CLA, 461 West Lancaster Avenue, Haverford, Pennsylvania 19041.

### Doc Inc. Library Liaison Service

Documentation Incorporated, Bethesda, Maryland, has recently established a Library Liaison Service to answer technical questions from the library world about advanced computer applications in the field of library automation.

### LETTER TO THE EDITOR

#### TRANSLATORS STAMP OF APPROVAL

Permit me to comment concerning a statement in the paper by Dr. Gingold, A Translator's Guide to Better Translations (*Special Libraries*, November 1966). Dr. Gingold states that no simple way exists "to find a reliable translator, since no system for certifying or accrediting translators exists in the United States."

Please refer to a news item in *Special Libraries*, April 1966, page 258, announcing the founding of the American Society of Scientific and Engineering Translators (ASSET), 446 South Avenue, Pittsburgh, Pennsylvania 15221. Translators, who apply for membership, must submit samples of their work for evaluation. It is suggested that this represents a considerable step toward certification and accreditation of translators. ASSET will be happy to furnish prospective clients with directories of their members, listing the language and area of competence for each member.

GERHARD P. SCHÜCK-KOLBEN, Head  
Information Services  
Consolidation Coal Company  
Library, Pennsylvania

# Off the Press . . .

## Book Reviews

BONN, George S., ed. *Library Education and Training in Developing Countries*. Honolulu: East-West Center Press, 1966. 199 p. pap. \$5.50.

A panoramic view of the nature, variety, level, and content of education for librarianship in developing countries, especially those of south and east Asia is presented in this report of the Conference on Library Education and Training in Developing Countries, held at the University of Hawaii in May 1966. Papers were submitted by nine Asian authors on the present situation and future needs and by four United States librarians who have engaged in aiding the development of library training in the area and who reported on U. S. programs of assistance, the contribution of American librarianship to library education in Asia, and the potential of U. S. library schools in training foreign librarians. For comparative purposes a report was given on the development and present characteristics of the Inter-American Library School in Colombia as a regional center especially useful for its special courses, its library for research and study, and its publications program.

The papers provided background information for panel and general discussion of the problems facing southeast Asian librarians in their attempt to render better library services and in training personnel for that purpose. Nine librarians from the Asian countries, seven U. S. librarians, and three observers from the U. S. participated in the conference under the Chairmanship of Lester Asheim, with George S. Bonn serving as Coordinator for the Conference.

Panel discussions were devoted to the effectiveness of present Asian and U. S. programs and efforts, what can be done by Asian library schools to satisfy future needs, what the United States can do to help in regard to the needs for various kinds of libraries and for library training in particular.

The participants identified the following specific needs: 1) more and better qualified teachers of librarianship; 2) more and better teaching materials; 3) basic bibliographical and reference tools, and for increased and improved publication in general in their own countries; 4) programs of training at an advanced level to prepare librarians for high level professional and administrative positions; 5) programs of training of library technicians

at a level below that of professional librarians; 6) qualitative standards to evaluate programs of library education, library services, library positions, etc.; 7) clearer understanding by non-librarians and persons in authority of the role and value of libraries and information services; 8) better communication and exchange of information, among librarians of different countries, among librarians within a single country, and between librarians on the one hand and non-librarians, administrators, and the public on the other; and 9) research on basic problems of libraries, library services, and education for librarianship.

Hawaii's role was outlined as follows: 1) the development of an experimental, international institute of library science with programs at the doctoral level for preparing library science teachers for Asia; 2) special seminars or training programs for library field workers, both Americans and natives, to conduct library technicians programs for workers in small libraries, perhaps with Peace Corps assistance; 3) possibility of the Hawaii Graduate School of Library Studies serving as a regional school, with assistance from the East-West Center; 4) formal or informal affiliation of the Hawaii school with Asian schools to promote professional relations and teacher exchange; and 5) using visiting experts from Asia at Hawaii to attract students from Asia and those from the U. S. interested in Asia specialization.

Three groups of conclusions were concerned with problems that can or should be put into practice in the individual countries, those appropriate to the United States and Canada especially, and those that can be implemented in regional projects.

MARIETTA DANIELS SHEPARD  
Associate Librarian  
Pan American Union  
Washington, D. C.

STEBBINS, KATHLEEN B. *Personnel Administration in Libraries*, 2nd ed., rev., and largely rewritten by Foster E. Mohrhardt. New York: Scarecrow Press, 1966. 373 p. \$9.00. (LC 66-13740)

Like the first edition (1958), this work starts with a delineation of personnel administration and management and covers in nine additional chapters: Recruitment and Selection; Orientation and Training; Motivation; Communication; Work Habits; Executive De-

velopment; Ratings, Appraisals, Evaluations; Retirement and Benefits; and Library Forms and Records. Mohrhardt has added a chapter on Professionalism and Related Factors. The forms for Applications, References, Interviews, Service Ratings, and so forth, in Appendix I, and the summaries of Personnel Practices, Classification Plans, and Salaries in Major Public and County Libraries in Appendix II have been brought up to date, as of June 1965. The Index has been extended by some 130 entries.

The *practice* of personnel administration is demonstrated throughout by quotations or statements of authors and organizations that have made studies or engaged in research programs relating to management and personnel. Although the many examples of personnel practices relate to the large public library, they can be adapted to many library situations—large or small—public, academic, or special. About one third of the text has been rewritten or consists of additional quotations from recent sources. Mohrhardt has continued Stebbins' search for the relevant authority that summarizes the point at issue or that emphasizes his own viewpoint. The plethora of citations outside the field of librarianship *per se* may be useful to the student.

The documentation, however, is uneven. Citations at the end of each chapter do not represent a complete bibliography of the references included in the text for that chapter, and many references to authors or works in the text have not been specifically identified or completely cited anywhere. Captions in the table of contents for the 1958 edition have been repeated in the 1966 edition, although revised captions for most of the chapters are used. Why not express the essence of the chapter headed *Work Habits* by a modern caption *Employee Attitudes and Conduct*?

Unfortunately, lapses in proofreading, as well as omissions and mistakes in page numbers in the index, are evident. More important, one cannot be sure that statements in the 1958 edition concerning personnel practices in particular libraries have been verified for the 1966 edition. Comparison of the paragraphs relating to the Detroit Public Library and the Boston Public Library reveals no alterations. Yet, practices described as current in 1956-1958 may well have been modified or terminated in the interim, as in the case of the Boston Public Library's training program for higher grade positions that was discontinued eight years ago.

As an account of the important elements present in a library enterprise, with emphasis upon people, this work should be useful as

a reference source for library school students and as an orientation manual for the beginning staff member. It may be a practical guide for supervisors, particularly those who have new responsibilities, and it may provide a compendium for library administrators (general or special) who wish to compare practices and consider changes in their personnel policies or in their personnel records or forms.

RUTH S. LEONARD, Associate Professor  
of Library Science  
School of Library Science  
Simmons College  
Boston, Massachusetts

DOUGHERTY, Richard M. and HEINRITZ, Fred J. *Scientific Management of Library Operations*. Metuchen, N. J.: Scarecrow Press. 1966. \$7.00. (LC 66-13741)

"Scientific management principles and techniques have not been entirely ignored by the library profession." However, the authors, with adequate reason, feel that the potentials of analysis and measurement techniques used in business and industry have been ignored by the majority of library administrators for much too long. Dougherty, Acquisitions Librarian at the University of North Carolina, and Heinritz, Assistant Professor in the School of Library Science on the same campus, foresee the need for sound analysis and evaluation measures as an important prelude to automation and do their best to provide the library profession with a proper "cookbook" to lean on.

Techniques first applied by management experts Taylor and Gantt to the problems of industrial organizations are employed in conjunction with library-oriented operations in what must be the first volume to do so. Among other techniques the authors discuss the flow process chart, decision flow charting, operations analysis, forms control, and time and motion study, accompanying each presentation with an adequate number of pertinent examples. Human engineering principles are not presented, although the authors do suggest that an analysis and rearrangement of work areas do contribute to appreciable gains in worker efficiency.

In an especially interesting chapter dealing with sampling techniques, the authors pose the problem of determining the number of catalog cards in a catalog containing more than one thousand trays. They lead the reader step-by-step through the process of choosing a random sampling of catalog drawers, determining the number of cards in these samples' drawers, and then calculating the approximate number of cards in the catalog.

## RECENT REFERENCES

### Librarianship

ASTALL, Roland. *Special Libraries and Information Bureaux*. (Examination Guide Series No. 6.) London: Clive Bingley, 1966. 72 p. 15s. (Available at \$3 from Archon Books, The Shoe String Press, Inc., Hamden, Conn.)

Another in a series of short books intended for use both in library school courses and for students studying privately. Directed primarily at the British reader, the guide contains much information that should prove useful to any librarian working in a special library. Chapter 3 entitled special libraries outside the United Kingdom has a separate section on U.S. special libraries. Other chapters include information on buildings, equipment, staff, and stock. Index.

BALNAVES, John. *Australian Libraries*. Hamden, Conn.: Archon Books, 1966. 96 p. \$3.50.

A concise and vivid account of the Australian library scene specially written for American readers. Discusses history and structure of library services and includes chapters on national and state, public, academic, and special libraries. Index.

BORDIN, Ruth B. and WARNER, Robert M. *The Modern Manuscript Library*. New York and London: Scarecrow Press, 1966. 151 p. Offset. \$4.00. (L.C. 66-13734)

The book is the outgrowth of the authors' experiences with the Michigan Historical Collections at the University of Michigan. Chapters relate the who, what, how, and processing of collections, their administration, a publications program, and the role of the library and the researcher and general public. Appendixes include forms used for various operations. Index.

BRACKEN, Marilyn C. and SHILLING, Charles W. Education and Training of Information Specialists in the USA. In *Biological Sciences Communication Project Communique*. Washington, D. C.: George Washington University, 1966. 70 p. pap. Apply.

An analysis of programs in information science given in the United States and a list of universities and institutes with a description of their degree programs. Bibliography.

CENTRAL INSTITUTE FOR SCIENTIFIC, TECHNICAL AND ECONOMIC INFORMATION. *A Guide to the World's Training Facilities in Documentation and Information Work* (FID 373). 7 Hofweg, The Hague, Netherlands: International Federation for Documentation, 1965. xii, 218 p. pap. 20 guilders. (transl. by Stella Wojciechowska)

The result of FID's Secretariat of the Training Committee, who in 1963, under Polish auspices, collected material concerning schools, courses, and documentalists training programs from 36 countries and UNESCO, International Association of Documentalists and Technicians of Information (AID), and the Scandinavian Council for Applied Research (Nordforsk).

CHANDLER, G. *How to Find Out*, 2nd ed. rev. and enl. New York: Pergamon Press Inc., 1966. xiv, 198 p. illus. \$2.95. (L.C. 63-18932)

Describes examples of sources of information on all subjects. Arranged by the main classes of the Dewey Decimal System, the guide is designed to aid students, industrial organizations, as well as the general reader. Nearly 200 new sources of information have been added to this revised edition. A subject-title-author index is appended.

DOMINION BUREAU OF STATISTICS, EDUCATION DIVISION. *Survey of Libraries, Part II: Academic Libraries 1963-1964*. Ottawa: 1966. 61 p. pap. charts. tables. 75¢. (Available from Queen's Printer and Controller of Stationery, Ottawa, Canada)

The report covers libraries in 77 universities and affiliated institutions, 28 technical institutes, 79 teachers' colleges, and 2,602 elementary and secondary schools. All information is presented in both English and French and includes the results of a survey of 1965 library school graduates.

DOWNS, Robert B. (assisted by Elizabeth C. Downs). *How to Do Library Research*. Urbana, Ill. and London: University of Illinois Press, 1966. 179 p. illus. \$5.00 (38s.). (L.C. 66-13377)

The first of 12 chapters describes university, public, and special libraries in the United States and lists 100 notable American libraries, most of them university. The rest of the chapters deal with the card catalog, periodicals, and reference books for books, words, places, and people. Specialized subject reference books addendum, index.

FURLONG, Norman, ed. *Library Practice for Colleges of Education*. London: Library Association, 1966. 240 p. illus. 56s. (about \$4.00). (42s. to members of the Library Association)

A manual for librarians in colleges of education in England. Chapters, written by different authors, cover library planning, staff, finances, book and periodical selection, routine, photocopying, interlibrary loan, audio-visual aids, and work with students. Bibliography; index.

GROTZINGER, Laurel Ann. *The Power and the Dignity: Librarianship and Katharine Sharp*. New York and London: Scarecrow Press, 1966. 331 p. \$8.00. (L.C. 66-13735)

Personal life, training, and professional achievements of Katharine Sharp (1865-1914), who established the first school in the Midwest for the formal education of librarians at Armour Institute, Chicago, and was administrator of the library school and library at the University of Illinois. Bibliography and index. Offset.

ISABELLA, Santina M. Education for Information Center Personnel in ALA Accredited Library Schools of the U.S. and Canada. Unpublished M.S. thesis, Drexel Institute of Technology, 1964. iii, 100 p. typewritten (xerox). (Available on interlibrary loan from SLA Headquarters)

Most of the 21 schools place a major emphasis on the abstracting and indexing functions,

Bookstore, 32nd and Chestnut Streets, Philadelphia, Pennsylvania 19104. Also issued by Drexel is the proceedings of an October 1965 conference held on Library Problems in Metropolitan Areas, which is number 13 in the Drexel Library School Series and is also available from the Drexel Bookstore at \$2.75 a copy.

### University of Wisconsin Union List

The Information Services Division of the University-Industry Research Program, University of Wisconsin, published a *Union List of Serials and Periodicals* held at the chemistry, engineering, geography-geology, and physics-mathematics libraries. The 173-page volume, which contains approximately 4,600 journals and serial titles, is available at \$5.00 a copy, check made payable to the Engineering Library, University of Wisconsin, from Frances K. Wood, Assistant Director, Information Services Division, University-Industry Research, 540 University Avenue, Madison 53706.

### Data Processing Publications in Dallas

In cooperation with the Southern Methodist Fondren and Science Libraries and the Dallas Chapter of the Data Processing Management Association, the Science and Industry Department of the Dallas Public Library has produced *Data Processing Publications*, a computer print-out bibliography of data processing monographs available for use in Dallas, Texas. The listing is sorted alphabetically by author and includes publication titles, publishers, publication dates, and the indication of location in the Dallas Public Library, the SMU Science Library, or the SMU Fondren Library. *DPP* is available from these libraries on interlibrary loan.

### Journal Notes

COMMENTS ON NUCLEAR AND PARTICLE PHYSICS, a bimonthly published in January by Gordon and Breach Science Publishers, Inc., notes developments in the fields of particle, nuclear, and astro physics. Annual subscription rates are \$10 for individuals and \$20 for libraries.

COMPUTER PROCESSING UPDATER, a newsletter published twice monthly by Computer Publications, Inc., 816 West Olympic Boulevard, Los Angeles, California 90015, reports current news in the electronic data processing field including employment, publications,

and a calendar of events. Subscriptions are available from the publisher at \$24 a year (\$32 for U.S. possessions, Canada, and postal union nations, elsewhere \$36). A pre-paid two-month trial offer is \$3 (\$3.50 if billed), and a six-month charter subscription is \$9.

MATHEMATICAL BIOSCIENCES, an international quarterly to be published by the American Elsevier Publishing Company, will appear in early 1967. The journal will contain articles of both research and expository types devoted to the formulation, analysis, and numerical solution of mathematical models in the biosciences, including biology, physiology, bio-engineering, ecology, and psychology. Annual subscription is \$21.00 including postage, and further information may be obtained from the publisher, 52 Vanderbilt Avenue, New York 10017.

NB, an international bibliography of science, is devoted to brief descriptions of new scientific publications contributed by publishers throughout the world. Gratis subscriptions to *NB—Edition North America* are limited to centers of interest in science. Subscriptions for individuals are \$5.00, and librarians wanting descriptions ready for the preparation of bibliographic cards are offered a special *Edition Bibliographia* printed on one side only on gummed paper at \$7.00 a year for single subscriptions and \$12.00 for double subscriptions. Orders should be sent to Tinsley Crowder, Editor, IBIS/NB, Herengracht 403A, Amsterdam-C, Holland.

SCIENCE STUDENT NEWS is a quarterly journal dealing with relations between students and industry, employment opportunities, book reviews, and other news of interest to science students. Subscriptions are \$5.00 a year (\$6.00 foreign), available from the publisher, Harold M. Jones, 175 Fifth Avenue, New York 10001.

SOCIAL SCIENCE & MEDICINE, an international quarterly to aid in the dissemination of important research and theoretical work in all areas of common interest to the socio-behavioral sciences and medicine, has recently been published by Pergamon Press. Articles will be published in English, French, German, or Spanish. Annual subscription rate for libraries, university departments, government laboratories, and other multiple-reader institutions is \$30; personal subscriptions are \$15.

Copies may be purchased at \$1.00 each from James Wood, CAS, University Post Office, Columbus 43210.

### "Statistical Reporter" Available to Public

*Statistical Reporter*, published by the Bureau of the Budget, became available to the public with the July 1966 issue. *SR* is oriented primarily to federal personnel working on statistical programs, and contents include current developments in these programs, major publications, and important organizational changes. Subscriptions are \$2.25 a year, available from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. Foreign mailing is 75 cents extra, and single copies are 20 cents.

### COSATI Revises Cataloging Standard

*Standard for Descriptive Cataloging of Government Scientific and Technical Reports*, revision number 1, October 1966 (PB-173 314), originally adapted for government use by the Committee on Scientific and Technical Information, is available from CFSTI at \$1.00 a copy; 50 cents for microfiche.

### SLA Authors

BALAY, Robert and GARDNER, John. An Inexpensive Information Retrieval System Using Coordination of Terms with Edge-Notched Cards. *College & Research Libraries*, vol. 27, no. 6, November 1966, p. 464-9.

BROWN, Jack E. Survey Milestone: National Libraries. *Library Journal*, vol. 91, no. 20, November 15, 1966, p. 5525-28.

HARVEY, John F., co-author. Library School Instructor Evaluation. *College & Research Libraries*, vol. 27, no. 6, November 1966, p. 470-7.

HUMPHRY, James III. WLB Review of Books: Books in the Field: Art. *Wilson Library Bulletin*, vol. 41, no. 3, November 1966, p. 296-309.

LENTZ, Robert T. A Broad Spectrum (Library Education and the Shortage: A Symposium). *Library Journal*, vol. 91, no. 18, October 15, 1966, p. 4896-7.

LIPETZ, Ben-Ami. Information Storage and Retrieval. *Scientific American*, vol. 215, no. 3, September 1966, p. 224-42.

MCADAMS, Nancy. Super-Librarian & Sub-Architect. *Library Journal*, vol. 91, no. 21, December 1, 1966, p. 5827-31.

MCCLARREN, Robert, Co-author. Architectural Checklist. *Library Journal*, vol. 91, no. 21, December 1, 1966, p. 5832-7.

RICCIO, Dorothy M. The Interrogation Process of On-line Information Transfer Systems. *Proceedings of the 29th Annual Meeting of the American Documentation Institute*, October 3-7, 1966. American Documentation Institute, 1966, p. 367-72.

SASS, S. Industrial Corporation Libraries. *Journal of Education for Librarianship*, September 1966, p. 49-56.

SMITH, Richard D. Paper Deacidification: a Preliminary Report. *Library Quarterly*, vol. 36, no. 4, October 1966, p. 273-92.

### Guide to Japanese Reference Books

The Japanese counterpart of Constance M. Winchell's *Guide to Reference Books* has been translated and edited by Japanese library specialists with support from the Rockefeller Foundation and Asia Foundation under the direction of the International House of Japan. The translation is designed specifically for those who do not read Japanese. Copies are \$10.00 each and are available from the American Library Association Publishing Department, 50 East Huron Street, Chicago, Illinois 60611.

### Philadelphia JIM List

The Philadelphia Regional Group of the Medical Library Association recently published its *1966 JIM List; List of Journals Indexed in Index Medicus with Philadelphia Locations*. Checks for \$3.00 should be made payable to MLA, Philadelphia Regional Group, and sent to Jacqueline Bastille, Smith Kline & French Laboratories, 1500 Spring Garden Street, Philadelphia 19101.

### Thesis Manual for Pharmaceutical Students

*Thesis Manual for Students in the Pharmaceutical Sciences*, revised by Mrs. Theodora Andrews, Pharmacy Librarian at Purdue University, is available at \$1.50 per copy from the Edward C. Elliott Hall of Music Box Office, Purdue University, Lafayette, Indiana 47907. The *Manual* includes two parts: 1) suggestions on how to search the pharmaceutical literature for the preparation of theses and term papers, and 2) illustrations and suggestions on bibliographic form and style for theses and term papers in schools of pharmacy, plus an annotated list of important indexing and abstracting services with detailed information about the use of *Chemical Abstracts*.

### Drexel Conference Proceedings

Drexel Institute of Technology's Graduate School of Library Science has published *Library Service for the Undereducated*, a report of a conference held in June 1965. The purpose of the conference was to alert librarians to their role in the anti-poverty program and to stimulate them to participate in community efforts in their field. Copies of the report are \$2.75, and orders should be sent to the Drexel



For those librarians who face the problem of systems analysis in the near future, the last two chapters, which in turn analyze the discrete elements of an existing circulation system and then its prospective system replacement, may alone be worth the price of the book. Another bonus is that this is a text written by librarians for librarians. There is little need, consequently, to translate terms used by a specialist in another discipline.

The authors thoughtfully provide bibliographies to both industry-oriented and library-oriented literature at the end of each chapter. A tolerable number of unimportant errors in no way detracts from the value of this volume which should be available to all library administrators and systems analysts.

JOHN J. MINITER  
School of Library Science  
Texas Woman's University  
Denton, Texas

### D. C. Special Libraries Directory

The Washington, D. C., Chapter, Special Libraries Association, has announced the publication and availability of the fifth edition of the Washington, D. C., Chapter *Directory and Handbook*. This edition contains more than 270 listings of libraries and reference facilities in the Washington metropolitan area together with current addresses, phone numbers, government tie-lines, and stop numbers. Approximately 600 Chapter members are listed in a separate section with organization affiliation, Chapter Division and Group membership, residence, office and home phone numbers. Other features include listings of SLA national officers, Chapters and Divisions, incumbent D. C. Chapter officers, committee chairmen, group officers, and short narratives of both the D. C. Chapter and the Special Libraries Association. Copies are available to SLA members at \$2.00 each; and to nonmembers at \$5.00 per copy. Send check or money order made payable to: Washington, D. C. Chapter, SLA, Benjamin Franklin Station, P. O. Box 287, Washington, D. C. 20044.

### Manual for Library Systems Analysis

*Systems Analysis and Design as Related to Library Operations*, a lecturer's manual designed for use at a symposium sponsored by the SLA Upstate New York Chapter, was prepared by Edward A. Chapman and Paul L. St. Pierre and published by the Rensselaer Libraries, Rensselaer Polytechnic Institute. Although the manual is now out of print it may be borrowed from Association Headquarters on interlibrary loan.

### Latin American Economics Periodical Bibliography

*Periodicals for Latin American Economic Development, Trade and Investment: An Annotated Bibliography*, available from the Documentation Section of the Latin American Center at the University of California, Los Angeles 90024, at \$2.50, contains full bibliographic data and descriptions of two hundred English- and Spanish-language periodicals published mainly in the western hemisphere. There are also title, subject, and geographic indexes.

### International Library Directory

The first *World Guide to Libraries*, recently published in Germany and now available exclusively in the United States and Canada from the R. R. Bowker Company, is published in two volumes—volume one lists European libraries and volume two covers libraries in America, Africa, Asia, and Oceania. Entries are arranged alphabetically by country with the name and address of the library, year of founding, number of volumes, and subject specialization. The 1,400 page, two-volume set sells for \$30 net postpaid.

### Directory of Medical Free-Lance Editorial Personnel

The American Medical Writers' Association recently issued its *Directory of Free-Lance Writers, Editors, and Researchers*, listing names and addresses, type of service, and field of specialization in the medical field. There is also a guide to the use of free-lance talent explaining the reasons for using this talent and how to make a selection. The *Directory* is available on request from AMWA, 2000 P Street, NW, Washington, D. C. 20036.

### Guide for Title Abbreviations

Chemical Abstracts Service, Columbus, Ohio, has issued a *Guide for Abbreviating Periodical Titles*, which is based on ASA Z39.5-1963: *American Standard for Periodical Title Abbreviations*. The stapled, 44-page *Guide* contains the new abbreviations used by CAS in its publications beginning in 1967. The first part includes general instructions for users, a list of words that generally will not appear in abbreviated form, a list of words frequently encountered in the titles of congress proceedings that are generally omitted from the abbreviated title, and a list of the more commonly used words for which the Z39.5 abbreviation is different from the abbreviation previously used by CAS. The second part consists of a list of words or word roots and their abbreviations.

but, in general, the reference tools of science and technology are widely taught, whereas the techniques of searching the literature are not. Appendixes include the ALA accredited library schools, cover letter and questionnaire, follow-up letter, and courses in the literature of the sciences. Bibliography.

LEE, Robert E. *Continuing Education for Adults through the American Public Library, 1833-1964*. Chicago: American Library Association, 1966. ix, 158 p. \$7.50 (L.C. 66-18958)

The history of the American public library from its origins in the middle of the 19th century and the development of its services for its varied users, emphasizing adult education. Selected bibliography, index.

LINDEN, Ronald O. *Books and Libraries: A Guide for Students*. New York: Philosophical Library, Inc., 1966. ix, 308 p. \$6.

Written for teachers, tutor-librarians, and students the book provides helpful guidance to more skillful and time-saving ways in finding and using reference materials generally found in school or college libraries. Index.

MILLARD, Patricia, ed. and comp. *Modern Library Equipment*. London: Crosby Lockwood & Son Ltd., 1966. x, 216 p. illus. 45 s. (approx. \$6.50).

Lists every type of equipment a modern library is likely to use, including factual information on the range of equipment available, prices, dimensions, and names and addresses of manufacturers. Although this information covers equipment almost exclusively made and used in Britain, U.S. librarians may be interested in the numerous layout illustrations and new ideas the book offers.

MORSE, Grant W. *The Concise Guide to Library Research*. New York: Washington Square Press, 1966. x, 214 p. \$5.95. (L.C. 66-10812)

A guide for the "inexperienced college student" who wants to define his research problem and seek the best sources. Morse also lists basic and specific reference works and periodicals. Four appendixes offer excerpts from various indexes, examples of Dewey and LC classification systems, and additional aids. Index.

MYLLER, Rolf. *The Design of the Small Public Library*. New York and London: R. R. Bowker, 1966. 95 p. illus. \$10. (L.C. 66-20401)

Written by an architect, the book is mainly intended for libraries serving populations under 10,000 and having limited budgets. The manual discusses the factors of planning the buildings, choosing a site, relationships of departments, circulation patterns, layout of furniture and equipment, special materials for floors, walls, and ceilings, heating, and lighting.

REDFERN, Brian. *Organizing Music in Libraries*. New York: Philosophical Library, 1966. 80 p. \$4.75.

Intended mainly for English library students intending to take professional examinations. Material covers problems of organizing material, BCM

classification, treatment of music in some general schemes of classification, and author, description, subject, and gramophone records cataloging. Glossary, bibliography, index.

UNITED HOSPITAL FUND OF NEW YORK. *Essentials for Patients' Libraries, A Guide*. New York: 1966. 104 p. \$2.50.

Designed to provide practical aid in the establishment or reorganization of patients' libraries. Includes chapters on financial planning and operating such libraries, on volunteer staffing, acquisitions, cataloging and classification, circulation, extended services, and coordinating the library with other hospital departments. Companion volumes to this guide, also published by UHF, are *Essentials for Hospital Auxiliaries*, and *Planning the Hospital Library*.

UNITED STATES DEPARTMENT OF LABOR, Employment Service. *Occupations in the Field of Library Science*. Washington, D. C.: Superintendent of Documents, Government Printing Office, 1966. v, 58 p. pap. 30¢.

Describes 22 library jobs as to occupational definition, educational and training requirements, and worker traits (aptitudes, interests, temperaments, physical demands, and working conditions). Positions include bookmobile driver, chief librarian, page, and librarians for special collections and research librarians in special libraries. Four appendixes: Library Associations, Education for Professional Librarianship, Library Schools, Library Periodicals. Bibliography on library science and careers.

WHATLEY, H. Allan. *A Survey of the Major Indexing and Abstracting Services for Library Science and Documentation*. London: The Library Association, 1966. 78 p. pap. 28s.; 21s. members.

Sixteen indexing and abstracting services throughout the world are assessed, mainly on content, format, and time-lag. The author's general recommendations are: 1) a monthly or bimonthly abstracting service is preferred, 2) the service should be published as a separate or detachable supplement; 3) a survey is still needed to find out what documentalists want in a service, and 4) recording references for the sake of completeness is not justified. Bibliography and appendix of questionnaires used.

WHITTAKER, Kenneth, ed. *Library Resources in Greater Manchester*, 2nd ed. London: Reference, Special and Information Group, Library Association, 1966. viii, 87 p. pap. 16s.; 12/6 to members of the Library Association.

Alphabetical listing of 256 libraries within a 15 mile radius of Manchester, England, with data on staff, hours, special collections, publications, and other services. Geographical and subject indexes.

WRIGHT, Gordon H., ed. *The Library in Colleges of Commerce and Technology*. New York: London House & Maxwell, 1966. 175 p. \$5.95. (L.C. 66-21410)

A guide to the use of the library as an instru-

ment of education. Offers practical and valuable advice to librarians and teachers on methods that can be employed in teaching the techniques and skills necessary for a successful use of library facilities, and examines the tutor-librarian's role in the education of the student. Index.

### Bibliographic Tools

ALLEN, David E., Jr., comp. *Business Books Translated from English: 1950-1965*. Reading, Mass.: Addison-Wesley Publishing Company, Inc., 1966. xiv, 414 p. \$12.50. (L.C. 66-23644)

A bibliography accomplished under the auspices of the International Center for the Advancement of Management Education, Graduate School of Business, Stanford University. Topical arrangement is heavily dependent upon LC classification. After assignment to a topical category, works are listed alphabetically by original author. Translations of these works are listed alphabetically by language. Contains separate author, language, and subject indexes.

BALZ, Charles F. and STANWOOD, Richard H., comps. and eds. *Literature on Information Retrieval and Machine Translation*, 2nd ed. (953-0300-1). Gaithersburg, Md.: IBM, 1966. x, 168 p. pap. (Available gratis from IBM offices)

Offset printout of titles using KWIC Index; supplements 1962 edition. Material on microreproduction, classification and cataloging theory, documentation, and linguistics is excluded. Earliest reference is 1918 but most references are from 1962-1965. Includes bibliography and author index. Visual thumb index.

BYRD, Cecil K. *A Bibliography of Illinois Imprints, 1814-58*. Chicago and London: University of Chicago Press, 1966. xxv, 601 p. \$12.50 (L.C. 65-24423)

Over 3,000 annotated references to books, broadsides, pamphlets, and maps that were produced in the print shops of the territory and state of Illinois between 1814 and 1858. Entries are arranged chronologically and alphabetically within the year. Index.

CHATFIELD, Mary, comp. *Inland Waterways Transportation, a Bibliography and Guide to Information Sources*. Cambridge, Mass.: Harvard University, Baker Library, Graduate School of Business Administration, 1966. x, 42 p. pap. Apply.

The collection honors John Oliver Innes, who served the inland waterways transportation industry, and is the result of a program of collecting and disseminating information about the industry. Material includes industry associations and companies, general works, bibliographies, serials, statistics, finance and accounting, and specific references on the individual inland waterways transportation systems.

CROOK, Ronald E. *A Bibliography of Joseph Priestley 1733-1804*. London: The Library Association, 7 Ridgmount St., 1966. xiv, 201 p. 48s.; 36s. to members of the Library Association (approx. \$7).

Comprehensive list of his works in all fields:

theological and religious, political and social, educational and psychological, philosophical and metaphysical, historical and scientific. Beginning with a short biography of the discoverer of oxygen, the book is divided into broad groups showing the pattern of evolution of Priestley's works, and provides a coded location index and an alphabetical short-title index.

DAVIES, J. H. *Musicalia: Sources of Information in Music*. New York: Pergamon Press, 1966. xi, 218 p. illus. pap. \$2.95 (L.C. 66-17793)

Information is arranged according to interests of ordinary listener, band conductor, singer, music librarian, collector, broadcaster, etc. Two chapters deal with periodicals, printing, publishing, and copying. Appendix 1 contains the principal British music collections, and Appendix 2 lists United States and British music publishers and agents, and selected international music publishers' organizations and performing rights and collecting societies. Index.

FRIEND, William L. *Anglo-American Legal Bibliographies: An Annotated Guide*. Washington, D. C.: The Library of Congress, Law Library, 1966. xii, 166 p. \$10. (Order from Rothman Reprints, Inc., South Hackensack, N. J.)

Reprint of the 1944 edition, the guide lists all classes of Anglo-American legal bibliographic materials with the exception of works devoted exclusively to American statutory materials, and library and publishers' catalogs. The first chapter offers a historical survey tracing the development of Anglo-American legal bibliography. Includes detailed index.

JONES, George Neville. *An Annotated Bibliography of Mexican Ferns*. Urbana, Ill.: University of Illinois Press, 1966. xxxiii, 297 p. \$5. (L.C. 66-10342)

Arranged by author and title, the bibliography lists more than 1,200 entries with approximately 3,000 cross references. An extensive supplementary section of "finding indexes" contains separate general, geographical, biographical, systematic, plant name, and personal name indexes. All entries were originally published as articles in periodicals or books in twelve different languages.

MARATHON OIL COMPANY, Library. *Creativity, a Bibliography*. Findlay, Ohio: 1966. no pagination. pap. offset. stapled. (Gratis from Marathon Oil Company, Library, Room 312-M, 539 S. Main St., Findlay, Ohio 45840)

Surveys the literature of creativity-in-business available in the Marathon Library between January 1, 1960, and February 15, 1966. Items briefly annotated.

OKINSHEVICH, Leo, comp. and CARLTON, Robert G., ed. *Latin America in Soviet Writings, A Bibliography: Vol. I, 1917-1958, Vol. II, 1959-1964*. Baltimore, Md.: The Johns Hopkins Press, 1966. (vol.1) xvii, 257 p. (vol. 2) xii, 311 p. both vols. \$25; separately \$15 each. (L.C. 66-16039)

Comprehensive two-volume work developed under a Ford Foundation grant by the Hispanic

Foundation of the Library of Congress in cooperation with the Library's Slavic and Central European Division. The complete work contains almost 9,000 entries and, while fundamentally an inventory of writings in the Russian language, it also records Soviet translations of works by Latin American authors. Includes separate author and subject indexes, as well as lists of abbreviated names of publishing houses, of periodicals cited, and of periodicals available in English.

WALFORD, A. J., ed. *Guide to Reference Material*, 2nd ed., vol. 1, *Science and Technology*. London: Library Association, 1966. vii, 483 p. \$15. (Distr. by R. R. Bowker)

Three thousand entries arranged by Universal Decimal classification, each providing data on publication date, edition, publisher, and price as well as including an annotation. Emphasis is on British works although U.S., Russian, French, and German material, particularly bibliographies and dictionaries, are included. Author, subject, title index.

WEINBERGER, Teris, et al. *Lincoln Laboratory Library 23rd Reference Bibliography: Attitude Perturbations and Control of Artificial Earth Satellites* (Prepared under Electronic Systems Division Contract AF 19(628)-5167.) Lexington, Mass.: Massachusetts Institute of Technology, 1966. vi, 58 p. pap. Apply.

Lists the title literature published between January 1957 and December 1964. Entries are arranged alphabetically by author or by corporate author. A subject outline and index are provided. Contains a total of 676 references.

ZELL, Hans M., ed. and comp. *New Reference Tools for Librarians, 1964-1965*. London: Robert Maxwell & Co., Ltd., 1965. vii, 214 p. pap. \$4 (incl. supplements #1-4). (Available from Maxwell Scientific International Inc., 44-01 21st St., Long Island City, N. Y.)

This second edition emphasizes works published in the U.K. and the U.S. but also includes many titles published in European continental countries and in the USSR. Features detailed information on a large number of specialized material, such as bibliographies issued by libraries, industrial research establishments, and governmental organizations. Titles listed in this edition are cumulative, including all works listed in supplements 1-4 to the 1962-1963 edition as well as over 2,000 new and forthcoming reference works and bibliographies.

#### Information Handling Techniques

BRANDHORST, W. T. and ECKERT, Philip F. *Guide to the Processing, Storage, and Retrieval of Bibliographic Information at the NASA Scientific and Technical Information Facility* (Prepared under Contract No. NASw-1315 for National Aeronautics and Space Administration) (NASA CR-62033.) College Park, Md.: Documentation Inc., 1966. ix, 149 p. pap. charts. tables. \$3.25. (Order from Clearinghouse for Federal Scientific and Technical Information, Springfield, Va. 22151)

Designed to serve as an instruction manual for

analysts, librarians and information specialists whose organizations are within NASA's decentralized tape user program, and also as a reference tool in the general area of NACA-NASA publications.

CURTICE, Robert M. *Experimental Retrieval Systems Studies, Report No. 1: Magnetic Tape and Disc File Organizations for Retrieval*. Bethlehem, Pa.: Lehigh University, Center for the Information Sciences, 1966. v, 44 p. pap. charts. Apply.

Discusses general considerations involved in the design of file organizations for information retrieval systems and reviews inverted file and serial file searching on magnetic tape. The report was prepared under a grant from the National Science Foundation.

HEISER, Robert C. and HILLMAN, Donald J. *A Formal Theory of Conceptual Affiliation for Document Reconstruction, Report No. 1: The Affiliation-Value Model*. Bethlehem, Pa.: Lehigh University, Center for the Information Sciences, 1966. 30 p. pap. charts. Apply.

A research project supported by a grant from the Air Force Office of Scientific Research, Washington, D. C. Discusses significant issues involved in the development of adequate text-processing procedures for document retrieval systems, the problems of characterizing or indexing a document, of reconstructing documents from their given characteristics, and introduces the notion of concretion into retrieval theory.

KENT, Allen. *Textbook on Mechanized Information Retrieval*, 2nd ed. New York: Interscience Publishers, Division of John Wiley & Sons, 1966. xx, 371 p. illus. charts. tables. \$10.95. (L.C. 66-20392)

Clarifies, up-dates, and augments material contained in the 1962 first edition. Teaches fundamentals of the IR field without requiring a special mathematical background and discusses both the human and the machine aspects of unit operations of IR systems such as acquisition, analysis, vocabulary control, and storage of source materials. Separate author and subject indexes.

KISH, Joseph L., Jr. and MORRIS, James. *Microfilm in Business*. New York: The Ronald Press Co., 1966. viii, 163 p. illus. charts. \$7.50.

Complete guide to current techniques, equipment, and money-saving applications both for information storage alone and as an integral part of data-processing operations. Describes in detail the various types of film and of photographic equipment, and provides valuable information on how to analyze costs and whether a microfilm system may or may not be practical in a given situation. Discusses also the permanency of microfilm, linking of microfilm files with automatic data processing, appropriate methods of filming and indexing, and the legality of microfilm records. Glossary and index.

MACKEY, Neil. *The Hole in the Card, The Story of the Microfilm Aperture Card*. St. Paul, Minn.: Minnesota Mining and Manufacturing Company, 1966. 122 p. illus. \$3.95.

As the title indicates this 4 1/4 x 7 1/4 volume traces the history of the aperture card from the invention of microfilm in the early 1800's to the growth and development of the operation at 3M Company.

MERSEL, Jules, et al. *Information Transfer in Educational Research* (OE-5-99-264). Sherman Oaks, Calif.: Informatics Inc., 1966. var. p. post binding. Apply.

One hundred fifty-four university USOE grantees, state departments of education research staff members, USOE staff members, and information scientists were interviewed as questionnaire method was eschewed. Part 1 covers dissemination of information, Part 2 the changing information technology, Part 3 ERIC and the future, Part 4 current awareness, and Part 5 data processing for current needs. Major problem was not result of information explosion but accounting procedures in government research contracts.

REED, David M. and HILLMAN, Donald J. *Document Retrieval Theory, Relevance, and the Methodology of Evaluation, Report No. 4: Canonical Decomposition*. Bethlehem, Pa.: Lehigh University, Center for the Information Sciences, 1966. 33 p. pap. tables. Apply.

Supported by a grant from the National Science Foundation this study describes a computer program for reducing the strings of categories produced by the microcategorization procedure to their canonical components.

ROSENBERG, Victor. *Studies in the Man-System Interface in Libraries, Report No. 2: The Application of Psychometric Techniques to Determine the Attitudes of Individuals toward Information Seeking*. Bethlehem, Pa.: Lehigh University, Center for Information Sciences, 1966. v, 46 p. pap. tables. Apply.

A study partially supported by grants from the Air Force Office of Aerospace and from the National Science Foundation. Discusses and evaluates questionnaire information provided by professional personnel in industrial and government organizations regarding preference in their use of eight different information-gathering methods.

UNITED STATES DEPARTMENT OF COMMERCE, NATIONAL BUREAU OF STANDARDS. *File Organization for a Large Chemical Information System*, comp. by Ruth Anderson, et al. (NBS Technical Note 285). Washington, D. C.: 1966. 17 p. pap. 25¢. (Available from Government Printing Office)

Describes a new approach to the structuring of a large file containing diverse information. Sponsored by the Army Research Office, representative data inputs from the Department of the Army were used in the project. The proposed file organization consists of two parts: a master file of fixed length information, and information files of variable length information.

WHEELER, Gershon J. and JONES, Donlan F. *Business Data Processing: An Introduction*. Reading, Mass., and Don Mills, Ont.: Addison-Wesley, 1966. vii, 152 p. illus. \$5.95. (L.C. 66-20467)

Designed for first course in EDP with emphasis on business operations and procedures. IBM 1440 computer is used as model, and thorough discussion of COBOL is given. Bibliography and questions at end of each chapter. Index.

WITHINGTON, Frederic G. *The Use of Computers in Business Organizations*. Reading, Mass.: Addison-Wesley Publishing Company, 1966. viii, 245 p. illus. charts. \$7.95. (L.C. 66-22577)

Concise coverage of all subjects relevant to decisions about the acquisition and use of computers. Written in layman's language, the book provides a good comprehension of computers for the non-specialist without requiring extensive technical training. Includes detailed bibliography, glossary of terms, and index.

### Cataloging and Classification

DAVISON, Keith. *Classification Practice in Britain*. London: Library Association, 1966. 34 p. pap. offset. 12s.; 9s. to members.

A report on a survey of classification opinion and practice in Great Britain, with particular reference to the Dewey Decimal Classification System, undertaken by the DDC Revision Subcommittee of LA's Library Research Committee. Analysis is of 716 replies to a questionnaire.

WILLEMIN, Silvère. *Technique of Union Catalogues: A Practical Guide*. 319 E. 34th St., New York: UNESCO, 1966. 26 p. pap. 50¢.

Outlines the advances made in recent years in establishing union catalogs. Contents include general principles, organization, contents, use, and administration.

### Dictionaries

GERWICK, Ben C., Jr. and PETERS, Peter V., eds. *Russian-English Dictionary of Prestressed Concrete and Concrete Construction*. New York: Gordon and Breach Science Publishers, 1966. 120 p. \$20. (L.C. 66-23104)

Designed to enable the English-speaking architect or engineer to read and translate Russian journals, books, and technical papers in these specialized fields. A comprehensive and up-to-date reference work containing some 13,000 terms. Appendixes.

MOLLETT, J. W., comp. *An Illustrated Dictionary of Art and Archaeology*. New York: American Archives of World Art, Inc., 1966. 350+ p. illus. \$12.50. (L.C. 65-29110)

The fact that this *Dictionary* was first prepared by J. W. Mollett in 1883 and republished without revision of the original accounts for the emphasis on Greek, Roman, and Christian antiquities, the random selection of terms (etymological derivations where possible), and old-fashioned line engravings. Subjects include architecture, jewelry, heraldry, costume, music, weaving, painting, furniture, pottery, and ecclesiastical ritual, but most modern technical terms are missing.

STEIN, Jess, ed. *The Random House Dictionary of the English Language*, unabridged. New York:

Random House, 1966. xxxii, 1959+ p. illus. \$25. (L.C. 66-21939)

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### Directories

DONOHUE, Arthur C. J., ed. *Trade Association Directory for New York City*, 2nd ed. New York: NYC Department of Commerce and Industrial Development, n.d. 73 p. pap. Apply.

Lists more than 1,000 trade associations and chambers of commerce in New York City. Associations are listed alphabetically under subject. Name index.

FROST AND SULLIVAN, INC., comp. *Aerospace and Defense Research Contracts Roster, Fiscal Year 1965*. Washington, D. C. and London: Bowker Associates, 1966. 1285+ p. \$35. (L.C. 66-19301)

Offset computer printout of over 11,000 contracts with information on company name and address, major federal government programs, phase, award date, dollar amount, name and address of awarding agency procurement centers, system product category designation, and descriptive statement of objectives. Indexes cover Systems Product, Hardware Product Category, Program, Awarding Agency Procurement Point, and State. *Roster* was formerly titled "Roster of U.S. Government Research and Development Contracts in Aerospace and Defense."

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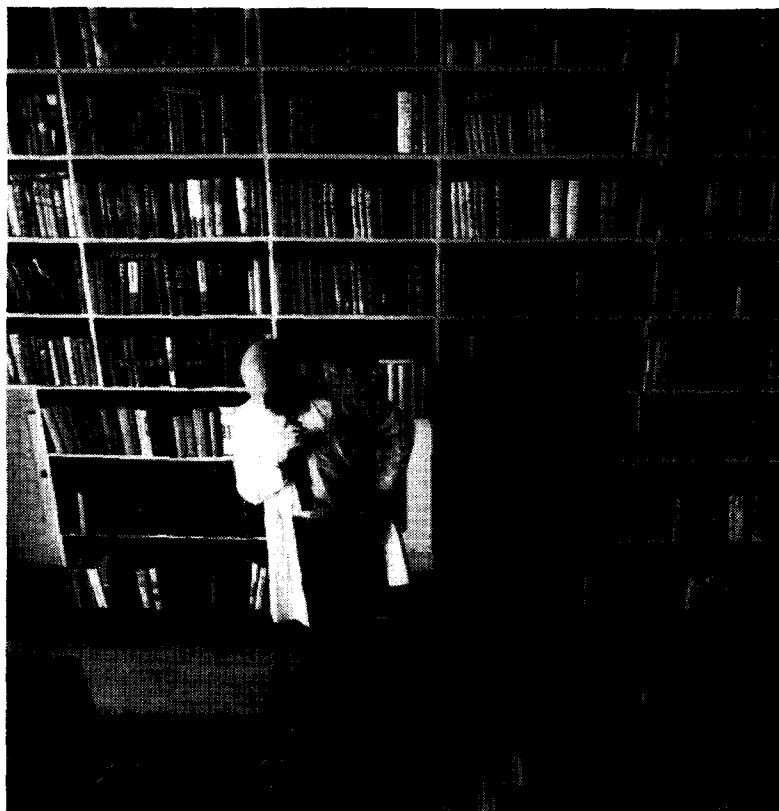
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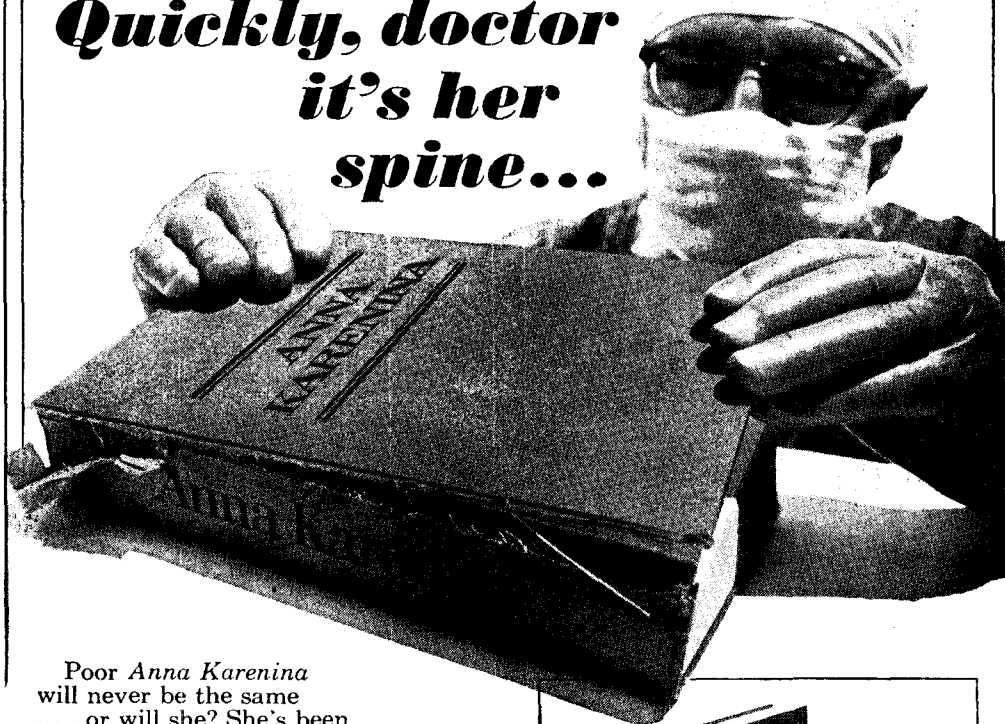
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