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The Scientific Revolution and the Research Library

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The thesis of C. P. Snow's *The Two Cultures* is more than amply demonstrated by the gap in understanding which exists between research libraries on the one hand and governmental interests in scientific and technical information on the other. The library establishment and the proponents of Federal science information systems apparently have little common understanding of the origins and the characteristics of the crisis in scientific communication. And yet both groups are involved in this phenomenon.

What are the forces in our civilization which have created this crisis? How did it arrive? Can we see it in perspective, rather than as a day-to-day series of emergencies, speculations, and drafting-board solutions? To what extent is this crisis of scientific rather than of political origin?

Such questions imply that the problem is more general than the totality of U. S. Government scientific interests and programs. The crisis is in fact a world-wide phenomenon. Every advanced society is perplexed by the problem of science information and is trying to create mechanisms to solve it. Western nations are all attempting to develop governmental mechanisms for the purpose of improving access for their scientists and engineers to scientific information; the well-publicized VINITI in the USSR and a multitude of national programs in Communist countries testify to the universality of the problem. It is apparently no respecter of political or economic philosophy, and indigenous to no one country.

It is, therefore, a generalized problem, characteristic to our time and our civilization; the U. S. Government, in its concern for science information, is reacting to the same forces which operate in other nations. Because science is so complex, these forces and their results are obscure. It is important nonetheless to try to identify them.

I should like to share with you some of my thinking about these forces, and how they are acting to change the forms of various scientific institutions, including research libraries.

To begin with, since World War II, all countries have been caught up in the sweep of a rapidly accelerating scientific revolution. I do not use this term in the same sense as does C. P. Snow. To him it stands for

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a period of social upheaval and opportunity created by electronic technology—a sort of 20th Century Industrial Revolution. I use the term in the rather more restrictive sense of an *internal* revolution in the sciences, marked by fundamental changes in the matter and conduct of scientific investigation and in the forms of the institutions through which science is conducted.

Let me develop briefly some of the characteristics of this scientific revolution in highly generalized terms.

Science, as it developed in the 19th Century and well into this century, had a disciplinary base. That is, it was compartmentalized into relatively rigidly-defined areas—physics, chemistry, biology—which were in turn subdivided—optics, inorganic chemistry, botany, and in turn even further fractionated. The stability of these disciplinary and subdisciplinary areas was in part guaranteed by the fact that the conduct and the support of science was centered in the university, which had the responsibility for transmitting what was known to succeeding generations, and found the scientific discipline a convenient organizational form to perpetuate for this purpose.

There were exceptions, it is true. Physiology, as introduced by Claude Bernard, caused disturbance, since it cut across so many areas of descriptive biology. Biochemistry was introduced early in the 19th Century. But, by and large, the organization of science and of scientific institutions which we inherited from the 19th Century was relatively stable, and the only concern—and an important one at the time—was that by the increasing fractionation of the disciplines, scientists were all coming to know more and more about less and less.

The first half of the 20th Century brought about new theoretical bases in the sciences, with immense consequences, not only for the sciences themselves, but also for society. The revolution in physics dates to Planck and Einstein and their contemporaries. The analogous revolution in the biological sciences has just started with the new theoretical base made possible by the discovery of DNA, and the breaking of the RNA genetic code. The exploitation of the revolution in physics through the Manhattan Project opened the Nuclear Age. Exploitation of molecular biology will, in the opinion of many scientists, have even more profound implications for human society.

These theoretical breakthroughs have come at a time in human history when there were massive resources of trained manpower and public funds available to exploit them. The nature of the nuclear sciences and that of molecular biology are such as to make earlier disciplinary barriers between fields of science meaningless; group research attracting individuals from many disciplines offers a more meaningful approach. The Manhattan Project was a mammoth interdisciplinary research and development effort, surely the largest attempted to that time. And, significantly, it paid off. And even more significantly, it became apparent to legislators controlling the expenditure of public funds and to govern-
mental research administrators alike, that "Big Science" requires the combined efforts of multiple scientific disciplines.

I am not suggesting that the Manhattan Project by itself has reshaped science in our times. Science had reached a point in its evolution where interdisciplinary efforts were a logical next step. Viewed philosophically, we had reached in the first half of the century the peak of an analytical cycle, as evidenced by ever-increasing fractionation and specialization of science. The times were calling for a revolution to restore the balance and resynthesize and reunify scientific effort. The Manhattan Project is merely a landmark. Its significance lies in its impact on government scientific policymakers.

Here let me digress for a moment to discuss one specialized aspect of science as an instrument of public policy. It is no accident that our great national scientific institutions were founded during periods of national emergency. Lincoln established the National Academy of Sciences during the Civil War "principally to advance abstract science, and to examine, investigate and experiment upon subjects upon which information is desired by the Government." The National Research Council came into being with World War I, with a dual purpose of promoting scientific research, and of applying and disseminating scientific knowledge for the benefit of the national strength and well-being. Franklin D. Roosevelt called the Office of Scientific Research and Development, created to meet the emergencies of World War II, a "unique experiment of teamwork and cooperation in coordinating scientific research and in applying existing scientific knowledge to the solution of technical problems paramount in war." Basic or applied, science today is pre-eminently supported by governments for social purposes—national welfare or national security.

I do not intend to be trapped into the threadbare arguments used to distinguish between basic and applied research. I want only to observe that when government supports science, it does so in the public interest. "Science," said Vannevar Bush, "is a proper concern of government ... Since health, well-being, and security are proper concerns of government, scientific progress is, and must be, of vital interest to government."

It happens, furthermore, that the business of government, including the support of science, is conducted by Executive agencies, each with specific statutory authorities and responsibilities, and each with its associated "missions," or formalized objectives. On the basis of such "missions" an agency justifies its requests for funds; its success or failure is measured against accomplishment toward realizing these missions. Hence, the mission-orientation of government-supported science.

The scientific missions of Federal agencies are complex, requiring contributions from many scientific disciplines. As we have already seen, science is predisposed to interdisciplinary persuasion, and what we are witnessing today is a marriage of interdisciplinary science with governmental missions.

The rise of interdisciplinary science reinforced by government fund-
ing, then, is one of the phenomena of this scientific revolution, to my mind the most interesting and the least studied.

There are better-known aspects of this scientific revolution which have been studied by others. These range from the demonstrations of the spectacular increases in magnitude of public funding (Federal dollars for science have increased 37-fold since 1941) to scientific manpower (U. S. scientists have increased from 20 to 40 thousand over the last 10 years.) These volumetric changes, of which the best known to you is the “publication explosion” are very much a part of the Scientific Revolution, and cannot be overlooked. My remarks, however, are concentrated on the change in kind, not the changes in quantity: interdisciplinary science and the effect it is having on scientific institutions.

Consider for a moment the impact of interdisciplinary science on the organization of graduate schools in universities. Here, where research funds become available to universities, disciplinary lines for organizational purposes have become blurred. I give you an example from the field of medical education.3 “In the future, organization of basic science departments as separate disciplines will lose all validity. This eventuality is a natural concommitant of the centralization of biological thought. Even today, a visitor to a medical school can distinguish one department from another only by the lettering on the office doors of the department chairmen.”

Or, to come closer to research libraries, look at publication as a scientific institution. Pick up almost any volume 1, no. 1 of a new scientific journal title, and in the editor’s introduction you will find wording similar to this:4 “It is in response to this emerging trend (i.e., interdisciplinary science) that Developmental Biology has been inaugurated. If the high rate of proliferation of new scientific journals can largely be blamed on a splintering of older disciplines into even smaller and narrower technical specialties . . . Developmental Biology has exactly the opposite mission—to promote the confluence and integration of related, but formerly isolated lines.”

Much of the increase of new scientific journal titles can be attributed to this need. By its nature, interdisciplinary science brings together workers from many disciplines interested in joining forces to attack problems in a new area. Their first requirement is a channel of intercommunication, a journal through which they can share their experience and expose each other to the contributions of the several disciplines they represent.

The same needs account for demands for new forms of secondary publication. Not only do workers in an interdisciplinary field need new journals; they also need a reorganization of the scientific record of the past. This requirement frequently takes the form of a basic retrospective bibliography created for the purpose of repackaging all relevant contributions from the pre-existing disciplines to the interdisciplinary study area. Thus, the recent Bibliography of World Literature on Mental Retardation,5 whose foreword reads: “The scientific field of mental retar-
dation is a complex phenomena involving many disciplines; those persons therefore who endeavor to study its problems must refer to literature from a wide area of scientific and professional sources.” Such repackaging of the earlier scientific record for the purpose of providing a new field with a common base of scientific knowledge is common today.

In addition to new forms of journals and basic retrospective bibliographies, the requirements of interdisciplinary science are at the root of many problems in the field of scientific abstracting. Classically, abstracting systems have been built along the lines of the established scientific disciplines—Chemical Abstracts, Biological Abstracts, Mathematics Reviews. Interdisciplinary science, on the other hand, requires the prompt abstracting of materials related to a problem area or to a scientific mission from journals representing multiple disciplines. The problem facing all scientific abstracting services today is again one of repackaging their product to meet the requirements of interdisciplinary research. The National Federation of Science Abstracting and Indexing Services recently employed the Heller Associates to investigate this problem and to propose a master plan providing guidelines for the future development of abstracting services in the U. S. While the Heller proposal was not accepted, it nonetheless analyzes the dichotomy of need for the organization of abstracts by discipline and the organization of abstracts by scientific mission. The problem is still to be resolved.

At this point, I should like to recapitulate my thesis. A principal feature of the scientific revolution is the emergence and rapid development of interdisciplinary science funded by mission-oriented government agencies, and the displacement of the older scientific disciplines. This phenomenon is creating major stresses on the institutional forms through which science is conducted; for example, university organization, and the institutions of primary and secondary scientific publication.

The same forces which are affecting these institutions are operating on the research library, viewed as an institution devoted to the organization, storage, and servicing of scientific and technical information. At first impression, the library, in that it embraces publications from multiple scientific disciplines, would appear to be an ideal instrument to satisfy the needs of interdisciplinary science. It has a broad range of resources and of skills and experience in their organization. Why then is it under attack for its inadequacies?

Walter M. Carlson, Director of Technical Information for the Department of Defense, postulates that libraries have chosen “a role in which they serve a primarily archival function.”; that “to these challenges which have been building up over many years, the libraries have reacted so passively that, to satisfy the developing information needs, new approaches outside the traditional library concept have been created”; that “despite the rapid development of interdisciplinary approaches to science and engineering, librarians have insisted on continuing to use ancient and outmoded concepts of subject classification”; and finally, that librarians have misused their cooperative efforts “to unify their re-

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sistance to technical peoples' demands for new kinds of services."

These remarks were, of course, intended to be provocative, but Carlson is right, it seems to me, on one fundamental point: the research library has been and is a passive rather than an active instrument in scientific communication. Its function has traditionally been not to exploit, but to create resources for others to exploit. And interdisciplinary science needs active, not passive assistance.

Let me review the new types of information requirements for interdisciplinary science as I see them:

1. There is need to assemble materials, selected on the basis of scientifically informed judgment, from multiple disciplines as they relate to a problem complex.
2. There is need for new classificatory or organizational devices, possibly but not necessarily machine-aided, to relate these materials meaningfully to the interdisciplinary problem.
3. There is, above all else, need for an active program of evaluation and synthesis of these materials to feed the dynamics of the interdisciplinary field.

To meet such needs, which relate more nearly to the active principle of exploitation rather than to the passive principle, interdisciplinary science, supported by government missions, is attempting to devise new techniques and to institutionalize them in a para-library form—the specialized science information center.

The Weinberg report calls for the development of specialized information centers, not research libraries, as a "major key to the rationalization of our information system." Such centers and their functions have, I think, been adequately described in the literature.s

To postulate the existence of a system of specialized science information centers, in parallel, or in juxtaposition to, or in competition with a system of research libraries has given the library community great difficulty, and library opinion ranges from derision through apprehension to fear—a gamut of emotional response.

I do not join those who view the specialized information center as unnecessary or duplicative. Mission-oriented interdisciplinary science requires a mechanism of this type to help it achieve that measure of synthesis and integration which it needs to advance the field or the mission, and mission-oriented science is a fact of our time. I do suggest, however, that the co-existence of a system of mission-oriented science information centers, and what has been to date a system of discipline-oriented research libraries, constitutes a major challenge to the library profession, and an opportunity for national planning.

An even greater challenge arises from governmental interest in exploring the possibilities of national networks of information resources. This subject has been under active consideration by the Committee on Scientific and Technical Information of the Federal Council on Science and Technology, and a variety of proposals for integrating governmen-
tally-supported scientific and technical information centers into national networks have been made. By and large, these ignore the existence of the research library. In contrast, the most recent proposal is that of Stafford L. Warren, which may be familiar to some of you. Dr. Warren has proposed the creation of a National Library of Science which would consist of seven regional Federal depositories of the journal literature in science and technology reduced to microform and indexed through an extension of the National Library of Medicine's MEDLARS system. The Washington region would consist of a consortium of the existing Federal libraries with extensive holdings in science and technology, and at the regional level the National Library of Science depositories would function to backstop local library resources in universities and information centers. Our own library, the National Library of Medicine, would be heavily involved. The Warren plan differs from other proposals for national information networks in that it recognizes the existence of the established research library system in American universities and proposes to reinforce it, rather than to superimpose an unrelated government-operated network of information centers. For this reason, I commend it to your attention.

I should like to record my concern, as a librarian, at the lack of broadly-based national planning by librarians for research library service networks. Frederick H. Wagman, speaking in November, 1963, at the Assembly on Library Functions of the States, deplored the uncoordinated development of state planning, and proposed that national planning be encouraged along with state planning. "It is up to us," he said, "to see to it that the Library of Congress, its sister national libraries (of which we are one) and the Library Services Branch (of the Office of Education) understand at firsthand the library needs of every state and region. It is up to us to draw them into the planning that will provide the long-range solutions."

Verner Clapp has also expressed himself on the urgency of planning for the integration of Federal and local research library resources and functions. "Time is passing," he writes, "and we are doing very little about incorporating the national libraries into the conscious, deliberate, organized library work of the country." At a time when the Federal Government is entertaining proposals for national science information networks, the research library community has yet to face up to its responsibility for planning on a national scale.

I should like to devote the last part of this paper to a brief discussion of the planning being done by one of the national libraries, the National Library of Medicine, on the one hand to resolve this discipline-mission dilemma, and on the other to strengthen the "conscious, deliberate, organized library work of the country" in its field of responsibility, that of biomedical librarianship.

In two particulars, the National Library of Medicine has a unique relationship to the library community. It is the first Federal library to be named and authorized by law as a national library; and second, even
prior to this statutory authorization, it had developed a pattern of coop-
eration with its segment of the library community—medical libraries—
which is atypical if not unique in the library world. Mr. Clapp has al-
ready pointed out that NLM offers "the most conspicuous example of
a national backstop to local library resources in a specific subject."^0

The biomedical and health sciences library world—libraries of med-
cal, dental, pharmacy, nursing schools, of hospitals, research institutions,
professional associations, and pharmaceutical firms—constitutes some-
thing of a closed community, servicing the information needs of medical
research, medical education, and the health practices. NLM's traditional
role has been to use Federal resources to backstop those of this large com-
munity, guaranteeing thereby the health and the efficiency of the medi-
cal library network.

As Mr. Clapp further points out,^1 this relationship is not true of any
other Federal library. And I might add that this sense of shared respon-
sibility for nationwide service in support of the health sciences exists not
only between the NLM and the individual libraries of the network,
but also between NLM and the national specialized professional associa-
tion, the Medical Library Association.

The forces which I have been describing have challenged those insti-
tutions devoted to communication in the biomedical sciences. Concern
for the health and the efficiency of this national medical library network
has been general, not only among the librarians themselves, but also
among the deans of medical schools, university administrators, and indi-
viduals high in the councils of the health professions.

We believe, at NLM, that the key to the problem is the moderniza-
tion and revitalization of the medical library network. We believe fur-
ther that any national planning which ignores the investment society has
already made in existing library resources is unrealistic. The objective
should be to strengthen these resources and to employ new technologies
to enable them to meet interdisciplinary needs, not to permit them to
wither by attrition.

Accordingly, there are two major strategic considerations underlying
NLM planning:

1. NLM intends to share with the medical library community the
power to search for and repackage citations in response to inter-
disciplinary needs we have developed through MEDLARS.
2. NLM intends to establish, through Federal grants and contracts,
a medical library technical assistance program, to strengthen the
medical library network so that its resources and services may more
nearly equate to the complexity and volume of new interdiscipli-
nary needs, and to the power of retrieval provided by MEDLARS.

Let me be specific. MEDLARS, the NLM computer-based bibliogra-
phic system is operational. We are ready to take this month the first step
toward decentralizing the system nationally. We shall enter into contract
with a university to reprogram MEDLARS so that its tapes may be pro-

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cessed by other computers on university campuses. When this action is completed and tested (18 months), we shall be ready to discuss the further decentralization of converted MEDLARS tapes to medical libraries which provide regional backstopping functions, which have access to computer facilities, and which have the resources to service the demands this type of mechanized retrieval will create.

An immediate benefit will be to provide capabilities for local demand search service. A secondary benefit will be to develop local capability of providing the same type of "recurring bibliographic" service we are developing—that is a periodic repackaging of citations selected from the file to provide local interdisciplinary groups, with a "current awareness" type of bibliographic service. It is within the power of the computer, and of the humans utilizing it, to use the same basic units of information for purposes of both discipline-oriented and mission-oriented science, and we plan, through making our centrally-produced tapes available nationally, to exploit this power.

Specialized science information centers in medical fields would thereby become satellites to a research library system, receiving their current awareness services through such recurring bibliographies, and deriving their materials for evaluation and synthesis from the library's resources. Thus the science information centers would co-exist with libraries in a pattern of economic cooperation, and not of competition.

It is our further intention to develop a grant-in-aid program for the purpose of strengthening and improving the medical library network. Under existing authorities, as recently interpreted by the Comptroller General, the National Library of Medicine plans to support research in all phases of biomedical librarianship, including information storage and retrieval systems. Of particular interest will be studies on the interrelations of local and regional resource centers in relationship to the National Library of Medicine and national service networks.

Under existing authorities also, the National Library of Medicine plans to foster programs to train specialists in the communication of recorded medical knowledge. This would include support for training grants and traineeships in the fields of medical librarianship, bio-medical science information specialties, information processing technology, history of the life sciences, and biomedical science writing and editorial work.

Programs for the development of medical library resources and of medical library construction will require new authorizing legislation, which the Library is actively seeking.

Except for a program supporting secondary publication—abstracts, indexes, bibliographies, and critical reviews—this library technical assistance program is not funded in FY 1965; efforts are being made to obtain funds in FY 1966.

This present and planned activity represents a new dimension in the functions of a national library. It also offers a challenge to others in the research library community. The type of national planning called for...
by Dr. Wagman and Mr. Clapp must be undertaken for all fields of human knowledge—not medicine alone. And research librarians have both a responsibility and an opportunity to do it. If they do not rise to the challenge, it is reasonable to assume that planning may be done for them.

As we move toward the 21st Century, I think our responsibility as research librarians is clear—to understand the forces which are reshaping our society—to interpret these forces in terms of the changes required in our institutions and to have the vision and the boldness to plan at a national level the provision of research library resources and services for a new age.

REFERENCES


AEROSPACE LIBRARIANS TO PUBLISH PROCEEDINGS IN PRINT

The Aerospace Section of the Science-Technology Division of Special Libraries Association is undertaking publication of a new reference service for scientists, engineers, and librarians. Entitled *Proceedings in Print*, each bi-monthly issue of approximately 50 pages will provide full bibliographic data about proceedings in as wide a subject range and span of years as is pertinent to current technology in the aerospace fields.

Subscription orders for *Proceedings in Print* are now being accepted as $20 per year. For volume one, prepayment is required. Checks should be made payable to Aerospace Section, Special Libraries Association, and orders sent, with payment, to Maurice Rahilly, Business Manager, *Proceedings in Print*, Avco Corp., Research & Advanced Development Division, 201 Lowell Street, Wimington, Mass.
1964: Peek into Paradise

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SO YOU’VE GOT PROBLEMS. Well, cheer up, friend. Your problems are not long for this world. Last year we saw the gates of Paradise. Not just one Paradise, mind you, but a whole raft of them.

First off came the Paradise of the Machine. The year opened with a bang—a bang for two bucks. Of course, the two bucks were only a down payment on a 50 to 70 million buck job. Automation and the Library of Congress (actually the imprint date is 1963* if you want to be a picky cataloger) is a dream, a real dreamy dream in eighty-eight pages between flashy red covers. A dream of an automated system in the Library of Congress of the future with benefits to be shared by research libraries all over the United States. A magnificent dream of a Library of Congress which at last will be truly a national library. Even if it costs more than the 50 to 70 million bucks (most dreams do cost more, you know) it may well be worth it.

Apart from the Thin Red Book, the Library of Congress moved ahead with automation on several fronts. The seventh edition of the LC Subject Headings List is being set in tape for printing purposes with the hope that all copy will go to the printer by June 1965 and publication will come in the fall. The Library appointed an Information Specialist and staff. The Council on Library Resources made a grant to the Library of Congress and Inforonics, Inc. to investigate the general question of conversion of bibliographic information (specifically cataloging data) to machine readable form. This would be for computer processing for both regular computer output printing and automated regular printing of the LC card and the use of this record for the LC book catalogs, both Author (NUC) and Subject. Lawrence F. Buckland submitted a report on the recording of LC bibliographic data in machine form which is now under study.

There were other books, two of them tinier (and less gaudy) than the Library of Congress report: Toward the Library of the 21st Century and A Joint College/Industry Library with Automation. And still we gazed and still the wonder grew: that two small books could carry all they knew. There were also some articles, among them three on Florida Atlantic University plans, in College and Research Libraries May, p. 181-199. Be-

* Editor’s note: Unless otherwise noted, all references in this paper are 1964 imprints.

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fore St. Louis there was a Pre-Conference on automation; its papers appeared in the Winter 1965 issue of LRTS. There were articles in the Library Quarterly January and October. Et cetera, et cetera.

For all of this we are heavily in debt to the courage and vision—and cash—of the Council on Library Resources and the private initiative of a few individual librarians.

The Paradise of the Machine is just around the corner. Maybe it is already here. All we have to do is move in.

And yet—Remember Adam and Omar Khayyam? They found Paradise already inhabited—by a serpent. There are sons of Adam and Omar among us.

In a careful, objective study Richard M. Dougherty found that at least one now defunct Paradise had been both inefficient and costly (College and Research Libraries January, p. 7-12). In a report on the Library of Congress automation study, Melvin Voigt found it hard to believe that an estimate of cost of processing in the proposed system could be accurate “without at least simulating the processes.” And when the Thin Red Book told how the Machine would talk back to the user and convince him that what he really needed was a recent, English language student edition of Hamlet, Mr. Voigt suggested that we might do better to hand the user four bits and tell him how to get to the nearest paperback store (Library Journal March 1, p. 1022-1025).

At Florida Atlantic University the Machine records a powerful lot of stuff about a cataloged “document”. For one thing there are “edition data”, in recording which, however, “the word ‘issue’ is used ... to eliminate the confusion that sometimes results from an attempt to define the term ‘edition’ .” Is there, then, no confusion about the meaning of “issue”? Or have they dug up something more precise than Fredson Bowers’ 90 page long (and vain) struggle to define “issue” or John Carter’s brief (and equally vain) attempt to pin it down? The Machine records twenty-one varieties of “illustration”. The definitions of each, we learn, are found “in the cataloging instruction manual”. Are these definitions more exact than those of the 1941 preliminary edition of the ALA code? Andrew Osborn’s Crisis in Cataloging had real fun with what that manual had to say about “port” alone. How would the Machine record the golden illustration on the red cover of the Library of Congress automation study? In all the twenty-one slots there is no hole for “Conglomeration, Flashy”. All possible information for all possible people for all possible time: After twenty-four years that hoary Prodigal, the Perfectionist Cataloger, returns. Of course, in Paradise there is room for all, I suppose. And yet—Do we really need all this clutter of stuff or are we simply fascinated by the tricks our new toy can do?

In an intriguing review of the second volume of the Wiley Information Science Series (LRTS Summer, p. 334) Norman D. Stevens notes that some of what was in the first volume shows up here again, and he remarks that it is “difficult to envisage a rational solution to the problem of redundancy in scientific literature”. Is there really an “informa-
tion explosion" from which only the Machine will save us? Or is it only (to some little extent at least) a "word explosion"—the natural result of a "population explosion"? Is the serpent in Paradise that strange and garrulous creature Man?

I pray you, dear friends, do not get me wrong. No doubt more than one crackerbarrel philosopher once noted with glee that these newfangled horseless carriages cost more than horse-plus-carriages; and no doubt he watched (again with glee) when the horseless one balked. Now me: I use an electric shaver and I watch television; I even ride in elevators and horseless carriages. I am, indeed, a Machinophile. All I ask is that the Prophets of Paradise de-snake the place. So we're marching upward to Zion—but please, let's take along St. Patrick.

The Paradise of the Book Catalog is more earthy. More and more librarians tramp into it. Fortunately many of them give us practical, how-to-do-it progress reports of what happens to them. Half of the LRTS Fall issue was on the book catalog; and, of course, there were articles in other journals during the year.

The book catalog continues to "look good like a bibliography should", as Jesse Shera remarked; indeed, its typography begins to look good like a book should. William S. Geller wrote of the metamorphosis in *Library Quarterly* January p. 57-67; Catherine MacQuarrie, in LRTS Fall p. 370-378.

We begin to know more about just what the book catalog costs. Statistics such as George B. Moreland's table of costs in Montgomery County (Maryland) for a card catalog in 1962 and a book catalog in 1963 are helpful (LRTS Fall p. 381); and the Stanford University Library Study (R. M. Hayes and R. M. Shoffner: *Economics of Book Catalog Production*) is detailed and practical. But Margaret Brown's remark still holds: "In comparing costs, a book catalog versus a card catalog, we tend to forget that we are not comparing like things" (LRTS Fall p. 356). How, she asks, can we measure the convenience of having a book catalog in a private office or in another part of the state; how do we measure the value of improved cataloging copy?

We have not yet had time to work out a philosophy for this new tool. How will it affect, for instance, service to readers? Margaret Brown raises the question; and Ira Harris shows that almost no one has even tried to answer it (LRTS Fall p. 391-398). When is the book catalog feasible, when not? Wesley Simonton sums up what we know particularly about the book catalog produced by computer (LRTS Fall p. 399-407).

How will the computer and the book catalog affect our rules for author and description? Mr. Simonton suggests three possible results: (1) We may abandon the notion of "main entry" (really an anachronism as Cutter remarked 60 years ago) for the "author" and be content with simply "entries" in a finding list catalog. Ralph Parker makes the same suggestion (LRTS Fall p. 348). (2) We may drop certain illogical qualifications of entry—e.g., the phrase "joint author". (3) We may abandon the time-honored Second Objective of bringing all the works of an author
together in one place. Thus we find in book catalogs such as those produced by Phyllis Richmond one line allotted to a title (LRTS Fall p. 359-365). And in the one-line entry in the book catalog described by Erik Brombert, G. A. Dubinski, and Donn Remington, the author is represented only by surname and initials (Special Libraries November p. 611-614). Filing, of course, will also be affected, as several authors point out.

What of subject analysis? Mr. Simonton suggests we may come to use more subject headings than now and perhaps the "currently fashionable post-coordinated descriptors so widely used for index-report literature." Mrs. Richmond, who is concerned with book catalogs for science libraries on a university campus "as supplements to card catalogs", has found no reader demand for subject approach. Many book catalogs do give subject approach, but it is generally on a divided catalog basis with perhaps author, title, and subject sections. For the book catalog brings us again face to face with the divided catalog; and we may divide it along any lines we may think most useful.

A philosophy of the book catalog? Margaret Brown offers a good beginning (LRTS Fall p. 349-358). Well reasoned, fair, imaginative—hers is one of the best all-round papers on the book catalog which appeared during the year.

The Paradise of Cooperation is still with us and flourishing. In LRTS Winter 1964, we published three articles on processing centers. James Hunt dealt with the history of the movement, Elizabeth Adcock compared the operations in three types of centers, and Clara E. Wendel presented a case study of the center at Orlando, Florida. Gradually we move ahead from "how-we-do-it-good-in Rasberry-center" to some thought of general underlying principles.

The Association of Research Libraries has set up a Committee on Shared Cataloging (William Dix, Chairman) to draft a program designed to increase the amount of cataloging copy that can be shared by libraries. It has been estimated that approximately 46 per cent of the cataloging performed by ARL libraries is original cataloging done without LC copy. The Committee made a preliminary report at St. Louis.

The Library of Congress is a leader in Cooperation. During the year LC received from Congress funds to add 37 positions in the cataloging divisions and 12 positions for the current National Union Catalog; this will increase catalog productivity. The 1962 quinquennial of the National Union Catalog was published, including all 1956-to-date imprints.

The RTSD Committee on Resources Subcommittee on the National Union Catalog has agreed to sponsor publication of the pre-1956 NUC. LC will be responsible for editorial work, and the project is expected to be completed within ten years. It will be a fully edited catalog, with added entries, cross references, etc. In effect, it will replace all previous catalogs—Edwards Bros. Catalog and all cumulations to 1955. Probably there will be about 12,000,000 entries (all types). There will be regular supplements, but the plan for the supplement has not been completed.
The Library of Congress Cards-with-Books program resulted in the distribution of 1,059,599 sets of cards last year to interested dealers.

It was another year of work toward the Paradise of the Code for author and title entry and description. Work under pressure of a Detroit deadline and under pressure of dwindling cash. Present plans still call for the completed manuscript by Detroit. We hope we have the cash!

But there are other clouds on the horizon. If, for instance, plans for Library of Congress automation go through and if the major research libraries join the system, perhaps a different kind of code will be needed. And if under the plan it is decided to store more retrieval elements (such as those on imprint and illustration noted above at Florida Atlantic University) then perhaps this also should have been in the code. Or if much future cataloging for research libraries is done by remote control, so to speak, then perhaps to be satisfactory the rules should be even more detailed and specific than we have made them.

On the other hand, if the book catalog pushes us to abandon the Second objective or to limit description (the finding list theory), this too would mean different rules from what we have written—but possibly different in that they would be briefer and simpler. Meanwhile the Committee on Scientific Information of the Federal Council for Science and Technology published in December 1963 Standard for Descriptive Cataloging of Government Scientific and Technical Reports. The Standard differs somewhat drastically from the new code, notably in the area of corporate authorship and in the use of initials with names of personal authors; during the year some attempt was made to resolve the differences.

The ALA code as we are writing it is basically a set of rules for a dictionary card catalog in a large research library. But suppose the large research library automates and/or adopts book catalogs; and suppose special libraries tend to follow the COSI Standard. Perhaps smaller libraries will continue to use dictionary card catalogs; but they will need only brief and simple rules, as shown by the small library reviews of the Chaplin Report in LRTS Summer issue.

Will the new code be a dinosaur on the freeway?

For many of us subject analysis is fascinating. We noted above work on the seventh edition of the Library of Congress list of subject headings. Barbara Westby's new edition of the Sears list will appear in 1965. The 17th Dewey has gone to the printer.

An interesting by-product of designing a catalog computerization project was a study of use of the subject cards in the Yale medical library. In 501 searches, 12.8 per cent were subject searches. Only half of the 501 searches were by the public; of those 17.9 percent were subject searches (Benedict Brooks and Frederick G. Kilgour in College and Research Libraries November p. 483-487). Various earlier studies in other libraries had suggested use of the subject approach ranging from 13 to 50 per cent. As noted above, the users of Mrs. Richmond's science libraries book catalogs did not ask for subject approach.

*Volume 9, Number 2, Spring 1965*
In 1938, Grace O. Kelley's *Classification of Books* showed, among other things, that only a very small percent of a library's total material was to be found under the class numbers for those subjects. Last year C. W. Cleverdon, F. W. Lancaster and J. Mills, discussing the Aslib Cranfield project, remarked on "the inverse relation between the factors of recall and relevance . . . any device added to a system to improve recall must inevitably reduce relevance; conversely, any device added to improve relevance must reduce recall" (*Special Libraries*, February p. 86-91).

The Mann Citation in 1964, went, appropriately enough, to Catherine MacQuarrie, one of the pioneers in the Renaissance of the Book Catalog.

For me, the best book of the year was one on the book catalog of yesterday: Jim Ranz: *The Printed Book Catalogue in American Libraries 1723-1900*. It covers, however, the history of cataloging principles and theory as well as the physical form of the catalog—can, indeed, the two be separated? The history of cataloging has been strangely neglected. And yet there may be something here even for the hard-boiled sophisticate of today; consider the sad story of that Great and Wonderful Machine, the Rudolf Indexer, its claims, its enthusiasts, and its flop.

And that was the year that was. You get a lot to like with a Paradise. You may even get a Rudolf Indexer. And us Machinophiles would rather fight than switch.

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**Foreign Fiction Service**

Libraries interested in keeping their collections of foreign fiction up to date may wish to take advantage of our Foreign Fiction Service. They will automatically receive each month selected new fiction in French, German, Italian, Portuguese, or Spanish. Libraries may decide for themselves the number of titles to be supplied monthly. Further information on request.

**STECHERT-HAFNER, INC.**

*The Worlds Leading International Bookseller*

31 East 10th Street, New York 3, N. Y.
THE PAST YEAR can best be characterized, not as a year of achievement so much as a year of continuation, a year in which we continued to grapple with the same old problems, with the same old methods, namely greater emphasis on centralization and cooperation. But this should not be viewed with pessimism or discouragement. We might as well resign ourselves that many problems confronting us today will likely be the same ones someone will report on 25 years hence; maybe, some will be closer to solutions; others, possibly, will have become more critical.

Publishers and Jobbers—the Distribution Pendulum Swings Again.

Apparently, more trade and university publishers are becoming increasingly active in the business of book distribution. Some firms are offering larger discounts when titles are ordered direct; likewise, more firms are establishing blanket order or library service plans. In a few instances, groups of publishers have centralized their distribution systems in order to form larger, more economical units. Judging from the number of ads received in our Library during the past year and the number of sales representatives who visited us, this trend is more than just a flash in the pan.

The effect this will ultimately have on library acquisition methods is debatable. This is not the first time the book distribution pendulum has swung between jobbers and publishers. Initially, it might serve to spur some jobbers to improve their services, which would be welcome. But this trend bears watching because—like the boy who was given a chocolate cake, after one piece he was still ravenous, after two pieces he was satisfied, but a third piece followed, accompanied with some very unpleasant aftereffects—publishers, too, might lose in the long run if library jobbers are crippled. This could occur if publishers forget that most libraries will never be able to deal directly with them for the bulk of their business.

Placing all orders direct with publishers is cumbersome and involves a considerable amount of paperwork; moreover, publishers cannot, or at least have not demonstrated a capacity to, provide libraries with many of the personalized services that jobbers provide as routine. While publishers can supplement the function of jobbers, they cannot supplant them in filling the needs of most libraries.

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Cooperative and Blanket Acquisitions Plans

Cooperative acquisitions programs are becoming commonplace. First, the Farmington Plan with which we are all familiar, a couple of years ago the Latin American Cooperative Acquisition Program was undertaken by Stechert-Hafner, and, more recently, Public Law 480. These plans are gradually ushering in a new age in acquisitions, the age of mass or blanket acquisitions.

With all of these cooperative programs, our ability to acquire has, up to now, outstripped our capacity to organize and disseminate these materials into our collections. In part, this has been due to a shortage of linguistically-qualified catalogers. Most recently in connection with PL480, Seoud Natta reported that backlogs of uncataloged materials could be found in almost all member libraries. He suggested that PL 480 materials be cataloged in the country of origin rather than the United States. At present, a centralized program has been started by the Library of Congress.

Although processing of cooperatively acquired publications is primarily the concern of catalogers, acquisition librarians and subject bibliographers are now devoting more and more time and energy selecting from and culling receipts, and evaluating the performance of designated agents.

Margaretta Thompson recently completed a study of 1959 Swedish publications acquired through the Farmington Plan. Among other things, she found that: “The Plan . . . supplied only 70 percent of the books it should have supplied. In addition, 11 percent of the material delivered by the Swedish Farmington Plan agent was of little or no research value.”

Miss Thompson also noted that more than one-third of the titles were not listed in the National Union Catalog until 1961; in other words, many titles were not readily accessible bibliographically until two years after publication. The findings of this study coupled with earlier studies clearly emphasize the need for more informational feedback, which can only be obtained by periodic review and reassessment.

More time is being spent evaluating programs exemplified by LACAP and the Farmington Plan. This has become apparent because the traditional method of ordering specific titles is being replaced by the blanket order for certain categories of publications. The blanket order technique has transferred the primary responsibility for selecting titles to book agents. A library now devotes its energies to preparing a detailed, written selection policy. The selection that does occur takes place after the books have been received, so that we are evaluating books themselves rather than bibliographies and reviews.

The need for more subject specialization and greater interest in area studies has also accelerated the trend toward blanket acquisitions. As Verner Clapp emphasized in The Future of the Research Library, the pressures are mounting for libraries to cooperate in academic and acquisition programs. As specialization gains momentum, there will be a
greater need for institutions to collect everything within a defined subject area or within a defined geographical area.

The organization or disorganization of the world book trade has also given impetus to blanket acquisitions plans. The Farmington Plan was conceived because of the disastrous effect World War II had on the Western European book trade. More recently, we have had to consider the Soviet Union and her satellites; but because of differences in book trades, we have had to modify traditional acquisitions techniques. Now, with greater emphasis on collecting materials from Latin America and Africa, we are confronted with the dilemma of collecting from areas with either a non-existent trade or a book trade that is not well-organized.

Finally, the blanket acquisition is beginning to precipitate some change in traditional internal acquisition department routines. For the most part, books are now ordered from information supplied on order request cards, postcards, scraps of paper, etc. The order cards are normally searched to prevent undesirable duplication, multiforms are prepared, and records are maintained until the book is received. But all of this is theoretically unnecessary with blanket plans, because the book is already in hand. All bibliographical searching, etc., is for the precise purpose of getting a title processed. Having the book in hand rather than information on an order card is now opening up new vistas for procedural simplification.

From the New Bookshelf

Two significant new bibliographic tools made their maiden appearances in 1964. Choice: Books for College Libraries, a book for review journal intended for college librarians, sponsored by ACRL, began publication in March, 1964. Its purpose is “to assist the college librarian and his faculty in the selection of current books.” This tool fills a heretofore serious void in our arsenal of selection aids. Choice definitely warrants our support, not only from academic librarians but also public librarians, since many of the titles recommended will also be desirable for inclusions in public library collections.

Libros en Venta, the Spanish books-in-print, is truly a bibliographic landmark. As one reviewer expressed it, “... this work represents a monumental publishing achievement by R. R. Bowker.” Libros, together with Fichero Bibliográfico Hispánico, significantly improve our bibliographic accessibility to Latin American materials even though it is just a beginning.

The Council of Library Resources has granted over $70,000 to the Library of Congress to further its work on creating a National Union Catalog of Manuscript Collections. This grant will enable LC to continue editing listings of additional collections as they are submitted by cooperating institutions.

Bowker recently announced plans to publish an international yearbook, Publishers’ World, this spring. Its purpose, according to Bowker,
will be "to serve as a medium for exchange of information about business activity in the international marketplace."10

Library students, along with those new to the realm of acquisition work and op book collecting, may be interested in learning that new editions of Carter and Bonk's Building Library Collections,11 and Heard's Bookman's Guide to Americana12 (occasionally useful in ascertaining the price range for out-of-print works on Americana) have been published.

Another work in the offing, which will probably become one of our more significant bibliographic tools, is a centralized register of all master negative microfilms. This project is being undertaken by LC in cooperation with the Association of Research Libraries.13 Its values are obvious. Inasmuch as more microfilming projects are now being undertaken by both commercial firms and academic institutions, new problems for film selectors have arisen.

The RTSD Bookdealer—Library Relations Committee has just examined the ethics and legality of the practice of certain bookdealers who have offered libraries files of serial titles on microfilm in exchange for incomplete bound sets and often failed to deliver. Carl Jackson, Chairman, reported considerable response to the warning which has been issued in the library press to alert librarians to the danger. The Committee intends to continue in its investigations.14

Exchanging hard copy for film is just one of several problems related to the selection and use of microfilm reported by the Copying Methods Section Executive Committee and Research Committee. They cited a number of pitfalls in selecting microfilm. The Committee strongly urged that the entire question be brought to the attention of the profession. It is hoped that an article will be prepared in the near future.

The Continuing Story of the USBE

Two years of turmoil and frustration caused by union strife and the Agency for International Development's failure to renew its contract have caused a significant change in the operations of the United States Book Exchange. On December 31, 1963, the USBE became self-supporting. An annual service fee of $12.00 is charged to each participating institution. Handling charges have been increased to .45 for periodicals and to $1.50 for monographs.15 Service will be directed to 1,708 contributing libraries of which 1,479 are located in the United States and Canada.

There is a touch of irony about this entire affair. An original purpose in establishing the USBE was to assist financially foreign libraries in their efforts to acquire needed materials. To this end, the Agency for International Development granted funds to underwrite the cost of handling fees.16 In the ensuing years, USBE has achieved a success in distributing materials at low cost which is almost universally acknowledged. But because of AID's failure to renew promptly, the libraries AID originally intended to assist are the very libraries that have now been severed from
resources and services of USBE. This entire story of the last two years and the lessons learned have been recounted by Jerrold Orne.17

Meaningful Statistics?

Another of our perennial problems is trying to develop standard definitions for reporting statistics. Although this problem transcends all facets of library work, it isn’t even possible to compare meaningfully the number of volumes added in similar institutions, and this is the basic library statistic. An examination of the 1963/64 statistics released by the Association of College and Research Libraries will sharply underscore this shortcoming.18

The figures reported by the Library Services Branch are equally disturbing.19 While pointing to some of the obvious errors and inconsistencies, Eli Oboler commented that: “The farther one goes into this labyrinth or wonderland of academic statistics, the ‘curiouser’ and ‘curiouser’ they get.”20 As Oboler went on to point out, the fault doesn’t lie with the collecting agency but rather with the profession’s inability to develop standardized terms.

The entire problem is presently under study by the American Library Association Statistics Coordinating Project. A tentative list of terms and definitions has been prepared for discussion by Frank L. Schick.21 Let’s hope that from the efforts of this Committee will come the means for better statistical reporting. But if a solution is not forthcoming, the pressures for standardization will become acute if and when computers are adopted, since statistical feedback is a feature of machines. In our present state, their effectiveness couldn’t be utilized because the rule “garbage in, garbage out” still applies.

Cost-Price Indexes—Still an Upward Spiral

The preparation and use of cost-price indexes received considerable attention in 1964. The Cost of Library Materials Index Committee, formed in 1957, has been actively engaged in preparing indexes or promoting their preparation by volunteer librarians. As of the present, there are indexes for American, German, and Swiss books as well as for periodicals and for serial services.22

During the past year, Emil Frey23 completed his thesis at the University of North Carolina Library School on a comparison between book costs and book production of Swiss and American scientific, medical, and technical books. A library microfilm index is now being prepared by Robert Sullivan and will be completed in the near future.24

There are other indexes in the planning or preparation stages. Professors Herbert Goldhor and Harold Goldstein are working on a price index for textbooks. The Committee is now considering the problems involved in compiling a price index for paperback books. The R. R. Bowker Company has agreed to cooperate with the Committee if such a project is undertaken.25
Finally, the Committee announced last summer that the work on converting the Book Price Index from the 1947-49 base period over to the new base period of 1957-59 has almost been completed. The new index base period will conform to the Consumer Price Index.26

Indexes now available can supply head administrators as well as acquisition librarians with valuable data. As for prices themselves, in 1964 they continued their upward climb. The effect of this long-term trend on individual libraries is not clear because of several factors intrinsically related that must be weighted, e.g., rate of book budget increase vs. book price increases, proportion of the budget allotted to personnel, etc. Since the need to know more about how price information is being used has become more important, Marietta Chicorel will begin shortly a use study of indexes as soon as the necessary funds become available.27

**Paper Deterioration—A Growing Awareness**

It is becoming clear that if we don’t declare war on a large scale on paper deterioration, a considerable quantity of recorded knowledge will be lost. It was because of this need that a study of the problem supported by the Council on Library Resources has been conducted by Gordon Williams.28 While it is unlikely that all or, possibly, even a majority of ARL’s membership will agree with Mr. Williams’ recommendation that it is necessary to preserve the physical copy of “every significant book” instead of a filmed copy, or that all master films or copies be housed in a central storage depot à la Library of Congress, nevertheless, the problem has been cogently outlined.

Ironically, many of the books, although “significant,” are the very same titles we focus on in our deliberations on how, when, and where we should retire little-used research materials. If we procrastinate long enough, we will have solved this problem by default. All we will have to do is sweep up the pages and stack the casings.

**Central Processing Centers—What Role Acquisitions?**

During the past ten years, central processing centers have become commonplace. Usually, we associate cataloging and preparations routines with processing centers, rather than acquisition work. But if we continue toward centralized processing, which appears likely, recent events indicate that a rethinking of our acquisition policies and procedures is unavoidable.

The Association of Research Libraries in cooperation with the Library of Congress is investigating the feasibility and practicality of centralized cataloging on a national scale. Of course, the prime objective is to alleviate cataloging duplication, etc.; but if any plan is implemented, it will have tremendous impact on acquisition work, namely selecting, ordering, record maintenance, and possibly billing.

For example, to centralize, by definition requires that one copy of each title processed flows through the processing center. Some of the questions that must be resolved include: who will supply the copy for
cataloging? when will it be supplied? how will it be supplied? and how will participating libraries be notified that their book is needed for cataloging? what additional records will libraries have to maintain? how much time will be required for routine cataloging? how quickly will cataloging copy be supplied to other libraries? and will there be special provisions for RUSH titles?

So far, most attention has been focused on the cataloging aspect of centralized processing because this is the area where the critical backlogs and personnel shortages exist. But no plan involving multiple libraries is likely to succeed if the problems of acquisitions work are not thoroughly considered.

Automation of Acquisitions Work—Still on the Drawing Board

In many respects, automation is the most fascinating of today's trends, although I hasten to add, one of the most frustrating so far. Interest in automation has not flagged one iota; in fact, it is probably safe to state that more conferences and symposia were held, more proposals were written, and more pounds of paper were printed on the subject than ever before—but this record will undoubtedly succumb in 1965.

IBM has automated at least part of the acquisition routines in one of its research libraries. Whether or not the methods they employed are suitable to other library situations remains to be seen. I'm not sure that one can call an IBM library typical, at least in connection with automation. But aside from this one exception, unless a library has surreptitiously converted its operations, we will have to wait until at least 1965 for our first automated acquisitions department.

Summing Up

There are exciting things taking place in acquisitions work today. Some problems we have really begun to tackle, but there is no cause for complacency because critical questions confront us; among the most pressing are paper deterioration, utilization of the tools of automation, and rising book prices. No doubt about it, 1965 won't be dull.

REFERENCES

4. Ibid.

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17. Orne, op. cit.
24. ALA. Committee on Book Price Indexes, op. cit.
25. Ibid.
26. Ibid.
27. Ibid.

O.P.

The Canadian Bookfinder, the Specialist Out of Print Book Trade Journal, resumed monthly publication in October 1964. It lists "Books for Sale" and "Books Wanted", at advertising rates starting at 15 cents per line. Although the resumption of publication discontinued for some time, the October issue was numbered v.1 no. 1. It sells for 50 cents per copy, is edited by W. T. Lewis at 374 Bank St., Ottawa, Ontario.
Developments in Copying Methods, 1964

Allen B. Veaneer, Chief Librarian
Acquisitions Division, Stanford University Libraries

Microfiche and Microfilm Cartridges

After enduring a metamorphosis of many decades, the microfiche achieved adulthood in 1964. In the spring it was announced that four major government agencies had agreed to issue all of their microfiche publications in a size recommended by the International Standards Organization: 105mm × 148mm, or about 4" × 6". The agencies included NASA, the Department of Defense, the Office of Technical Services, and the Atomic Energy Commission. Additional support for the new standard microfiche may be expected from the newly-established Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia, which was opened late in 1964, by the National Bureau of Standards. The Clearinghouse apparently supersedes the Office of Technical Services and is intended to act as a central distribution agency for all unclassified government research reports in physical science and engineering. The Clearinghouse has complete microfiche facilities. With this heavy involvement of both government and industry in the microfiche, it is to be hoped that low cost, efficient readers and reader/printers may soon become available. The program of the Clearinghouse suggests the possibility that microfiche may soon become a primary medium of publication for technical reports. And after technical reports, what about government documents? And what about journals? These questions have been asked before, but up until now there has never been a centralized facility having the scope of the Clearinghouse. Its progress will be watched carefully.

With the aid of a grant from the Council on Library Resources, Bell & Howell delivered to the John Crerar Library its first “do-it-yourself” microfiche camera. The new device employs microxerography and hence requires no sensitized film. The present model requires the user to execute manually the step and repeat motions needed to make up the fiche, but it is understood that a more refined, fully automatic machine is under development. A convenient feature is the ability to add exposures to unused portions of the fiche.

Since one does not often see foreign microfilm equipment used in this country, it is interesting to note that the French-made Filmorex system has been installed at the Rome Air Development Center (RADC), Rome, New York. The Filmorex produces a small microfiche, 35mm × 60mm, bearing document images and digitally-encoded information. The individual chips of film can be mechanically sorted at high speeds, much in the manner of punched cards. Selected chips may be viewed or en-
larged as required. The RADC justifies the French equipment because it "is an off-the-shelf item which does not exist in the domestic market."

Film cartridges which eliminate threading of readers continue to gain popularity. Thus far all have been designed for 16mm film, a feature whose significance should not be lost to librarians. At the annual meeting of the National Microfilm Association, the 3M Company introduced its own cartridge system geared to a special reader/printer, the Filmac 400, with provision for indexing and rapidly retrieving desired portions of the film. Micro Photo exhibited its own cartridge and reader, the 510-C, and Recordak showed the now familiar Lodestar system. All these cartridge systems are incompatible with each other. Unless standardization is achieved soon, the cartridge may be as long getting established as was the microfiche, and this would be unfortunate because cartridges have significant advantages over microfiches for certain types of material. They also possess inherent advantages of file security, ease of handling, and mechanical protection from damage regardless of the type of material on the film. Neither the fiche nor the cartridge can constitute an ideal solution to the question of format; each must be employed to its best advantage.

**Equipment**

In the field of office copiers, the year was somewhat less hectic than usual, having been characterized by fewer new machines. Of the sheet feed machines, only the Eastman Kodak Ektafax appears to have useful library applications. Ektafax is a two-step process which works in conjunction with a thermographic copier; its chief advantage is its ability to transfer an image to any kind of paper or card stock. One must exercise the usual cautions, however, concerning the type of original which ought to pass through the thermographic copier. Ektafax is being marketed by Recordak, Kodak's microfilm subsidiary. Savin Business Machines and General Aniline and Film introduced electrostatic and diazo copiers, respectively, but neither has specific library applications.

There were some interesting new developments in flat-bed copiers, a type of particular appeal to libraries because the original document does not have to pass through the machine or move around rollers and belts. Xerox announced its Model 2400, 3M its Model 209, and Dennison introduced an improved paper. The announcement of the Xerox 2400 does not mean that libraries need replace their Xerox 914's. The 2400 may actually be less useful for copying library materials than the 914, whose shortcomings are already well known. The Xerox 2400 is designed to give its maker a foothold in the business now dominated by the Mimeograph, spirit duplicating and short-run offset printing; its curved exposure window indicates that loose sheets will be copied best. Since only those books limp enough to conform to the curvature of the window will copy satisfactorily, it follows that a great many library materials will be better served by the older Xerox 914 or its competitors. Also, ow-
Three M now offers the Model 209, a dual purpose copier employing the Dual Spectrum process. An original is imaged on a pink intermediate tissue, from which it is transferred to a receiving sheet. The method is dry and fast but suffers from the disadvantage common to all contact processes: unless firm, uniform pressure is applied, the copy may be blurred or may lack uniformity. The 209 can copy either loose sheets or bound volumes, but its ability to copy books is severely limited. Only smaller books which are not too thick or too tightly bound can be handled, and fragile materials cannot be handled at all. This copier operates from two rolls of paper which must be threaded through an intricate path, but the designers have made this task very easy by means of an ingenious, accessory threading aid.

The Dennison copier continues to be refined in response to the demands of the market. The machine now comes with an internal temperature control device. A new paper has been introduced which offers better contrast at the expense of somewhat poorer reproduction of half-tones and solid black areas. Early models exhibited a fall-off of optical quality at the extremes of 14" prints, a defect that did not extend into the area of 11" prints. It is not known whether this trouble has been corrected.

For microfilming books, no camera better than the Recordak MRD-2 was introduced in 1964, and even the MRD-2 is not as satisfactory as the older Model D, which has now become so scarce that it commands a premium price on the second-hand equipment market. Those libraries owning Model D's would do well to keep them or sell dear.

The 3M Company introduced a refined version of its Model 1000D Processor/Camera, which produces a fully processed frame of film mounted in an aperture card in less than a minute. Although not designed for bound materials, the camera is easily modified for this purpose, and it has been suggested that it be used to provide copies of journal articles in lieu of interlibrary loan. The originator of this suggestion is no doubt waiting at the door of the receiving library in hopes of selling a suitable reader/printer. The simplicity of operation, the compactness and ease of mailing of the product are very attractive, but each exposure on the 1000D requires waiting through the entire machine cycle, so that when one includes set-up time for the original, the output is limited to only forty or fifty frames per hour. The 1000D would be far more attractive if its working cycle were competitive with those copiers making full-size paper prints. A reader/printer, the Quadrant, is offered as a companion to the 1000D.

In readers, introduction of the Readex Model D makes readily available an instrument that permits users to read all extant microforms. The Readex D is light, portable, inexpensive, and easy to maintain. The reader and the accessory for reading roll microfilm are available for under $200. While it is a commonplace that machines which can do everything can do no single thing well, the new universal Model D is
nevertheless an amazing achievement that brings readers closer to the status of portable typewriters and tape recorders. Luxury readers having a high degree of flexibility are still badly needed in research institutions, but the development of such machines has always foundered on twin obstacles: low production quantity and consequent high unit cost.

For microfiches made in accordance with NMA standards, Xerox has developed a printer for making hard copies. An unusual feature is a screen which can be flipped into the optical path to facilitate the reproduction of improved half-tones by Xerography.

Documentation, Inc., received a grant from the Council on Library Resources in early 1964 to develop an inexpensive, flexible reader/printer to sell in the $100/$200 price range. At the time of announcement provision was made only for the handling of transparent microforms. Photo Devices, Inc., also received a CLR grant for development of a reader to handle flat film and roll film. For those inclined to do-it-yourself activities, the Microfiche Foundation, Delft, Netherlands, provides a kit for making full-size paper prints from the microfiche. At first the kits will be available only to national correspondents of the Foundation, for demonstration purposes.

From Recordak comes an answer to a recurring demand from small and medium-sized laboratories: a compact film processor. The unit, known as the Prostar, is no larger than a 19” portable television receiver. It is self-threading, daylight loading, and is claimed to produce archival film quality, even with films having internal anti-halation dyes. The Prostar is reportedly priced at just under $3,000. Finished film begins to emerge from the machine only five minutes after the processing cycle begins. If the claims made for the Prostar are substantiated in practise, many more library laboratories will enjoy the advantages of in-house film processing, namely, a rapid check on camera operation, and speeded bibliographic checking of the finished product. Bell & Howell is also reported to have developed a small, fast processor.

The Kalvar Corporation continues to push photography out of the darkroom. The latest Kalvar microfilm contact printer is designated the Multi-mode Reproducer, for it will make either a positive or a negative reproduction from either type of source film, depending upon the type of copy film loaded into the machine. A quick, dry method of duplicating microfiches was also shown at the 1964 NMA meeting. Not shown was the new Kalvar film known as “Instant 80,” a reversal film which is developed very rapidly by means of a stroboscopic flash tube.

Polaroid has just shown what may be the closest approximation to the “cataloger’s camera” yet to appear. It is the CU-5, a camera with a built-in electronic flash and which requires neither focusing nor exposure adjustments. 3¼” x 4¼” prints are yielded bearing images the same size as the original; accessories are available for changing size. The camera, originally designed for dental work, will be made available in 1965 and is expected to fill applications in education, criminal investigation, insurance, and perhaps librarianship.
Microfilm Spots

At the 13th convention of the National Microfilm Association, representatives of industry, government, and users heard a reassuring progress report concerning the microscopic spots recently discovered on some microfilms. While the mechanism of spot formation and the direct cause of the spots were not yet understood at the time of the report, there was some evidence to indicate that spots formed more readily in the presence of moisture and industrial waste gases and other atmospheric contaminants. Accordingly, it was recommended that, pending final determination of spot cause, archival negatives should be sealed in cans with vapor-barrier tape while in a room having clean, conditioned air maintained at 15% relative humidity. Once sealed, the cans should be kept at temperatures below 70°F. Keeping positive prints was another recommendation. Fortunately, throughout the entire realm of spot phenomena, there is no known case of data loss. To aid in tracing the origin of the spots, the National Bureau of Standards has prepared NBS Miscellaneous Handbook 96, written by G. S. McCamy, Inspection of Processed Photographic Record Films for Aging Blemishes. The handbook suggests careful, rigorous inspection techniques and urges all interested parties to report their finds to the Bureau. Meanwhile, an intensive research program on the spots is being planned by government and industry.

Publications

H. R. Verry's long-awaited Microcopying Methods was issued in 1964; however, several reviews indicate that its value will be questionable in matters of library reproduction. To secure better microfilms for its permanent collection of masters, the Library of Congress issued Specifications for Library of Congress Microfilming, written by Stephen R. Salmon. This document is achieving wide distribution through its inclusion with microfilm orders placed by the Library of Congress. It may also be purchased from the Superintendent of Documents (stock number LC 1.6/4:M58). Microfilm Norms, a recommendation with similar purposes, is imminently to be published by the American Library Association. The Library Technology Project is currently working on a practical manual of reprographic technique. The manual, which is being edited by W. R. Hawken, is intended to provide technicians with the exact information needed to make satisfactory reproductions from library materials. Detailed information on specific models of copiers continues to be available from the LTP in the form of supplements to Hawken's Photocopying from Bound Volumes. Additional technical reports may be forthcoming as part of LTP's planned loose-leaf current information service. To promote the use of the microfiche, the Microfiche Foundation of the Netherlands has begun a series entitled Publications on the Microfiche; the first numbers seen by this writer are definitely promotional but also informative and useful. They would be of more value to students and faculty members than to librarians. Reporting forms have been distributed by the LC for the National Register of Master Microfilms.

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Research and Planning

The Ampex Corporation has delivered to NASA in Huntsville, Alabama, a new magnetic tape document storage and retrieval system known as Videofile. The system is said to permit "micro-storage of documents with the push-button capability of rearranging, deleting or changing contents of the file." Plans call for expansion of the system to "provide direct access to the library from key points around the country." Retrieved data is presented on individual television screens and paper copies are reproduced by an electrostatic process. Should the Videofile system reach its stated objectives, most current systems of document reproduction would be seriously challenged or at least subjected to close scrutiny. Electronic imaging is closely allied to facsimile transmission and may facilitate direct input of documents to computers. An additional development described by two scientists from Molec Tro Corporation, Santa Clara, California, aims at image storage using solid state techniques; once stored, no electrical energy would be required to maintain the image.

As the pace of technology quickens, the need for superior intellectual direction stands out more boldly. Thirty years of microcopying projects carried out with the same basic equipment and technique have produced both great benefits and great frustrations for librarians, archivists, and scholars. Lester K. Born in the September, 1964 issue of PMLA, details the poor planning, the lack of coordination, and the weak standards which have produced three decades of "hit and miss photocopying." If one technique has shown such variation in results, what will the varied and mixed techniques of the future bring without adequate coordination? The Born report and its recommendations sharply limn the urgent need to bridge the gap which exists between bibliographic control and the mere techniques of reprography. The future cannot afford this unnatural division.

REFERENCES

3. The entire June 1964 issue of National Micro-News is devoted to the spot phenomenon. In addition to the article cited above, there is a review by Vernon D. Tate, "Microscopic Blemishes and the Storage of Permanent Record Microfilm in Perspective," and the minutes of two meetings of the NMA Committee on Quality Considerations of Permanent Record Microfilm. The research plans of government and industry are discussed in the last-named item.

Library Resources & Technical Services
A Survey of Serial Activities During 1964

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In sampling the happenings during 1964 in the areas of serials, binding, and documents work, two things stand out in particular. The first is the intensified interest of administrators in ways by which the computerized systems may be harnessed to pull the growing load of serial work; the second is research into methods of preserving existing materials, on one hand, and the mushrooming availability of serial files through photoreproduction methods and reprint processes, on the other. Provided it has the funds and the staff for processing, the newest of libraries today can bring into its repertoire prize holdings of serial files which only a few years ago were either totally unobtainable, or if indeed available at all, premium prices had to be paid for items on paper of doubtful quality, not to mention the state of the binding.

This survey makes no attempt to cite new serial titles appearing in 1964. However, an effort has been made to extract and present some of those titles or operations it is felt represent trends.

Several media in library literature call attention to new titles for the year as well as subject areas under development. Much of this is handled through sources such as the LC Information Bulletin, the “New Periodicals” section which College and Research Libraries has been issuing in several parts each year and which is now bolstered by the new section on periodicals begun in the Library Journal this year. New Serial Titles, “Births” cited in the Bulletin of Bibliography, Stechert’s listings, and various other similar sources also need to be approached if one really is to obtain some idea of the Hydra-like growth that is readily in evidence in the world of serials work.

A general picture of the continuing population explosion in the serial world, and the domino effect that results, may be seen from the fact that the 1963 annual cumulation of New Serial Titles, distributed in 1964, contained 15,000 new entries; 5,000 newly revised entries; and 50,000 new locations, a 65 per cent increase over the superseded 1962 annual volume.

Bibliographies, Indexes, Abstracts, and Directories

Indexes and bibliographies contributed the major stabilizing factors in controlling this dynamic and accelerated form of publication—serials. A project financed by the National Science Foundation providing a world inventory of abstracting services in science, technology, and the social sciences was made by the International Federation for Documentation. Questionnaires were sent to 2,900 addresses in 50 countries, and this resulted in 1,500 useful replies. The results have been filed in a UDC
classified card catalog at the FID General Secretariat, which handles inquiries concerning such services. An Index to Material Collected by FID in 1962/63 is the title-listed inventory, and there is a subject key of the various abstracting services which were reported. It has been issued as FID Publication 352 and is available for about $1.50 from the International Federation for Documentation.

An illuminating highlight of the continuing expansion in science serials in general, and chemical literature in particular, is the news that this year Chemical Abstracts reached its three millionth entry. Dale B. Baker, Director of Chemical Abstract Service, reported that it took only eight years to reach the third million, whereas the 57-year-old publication had taken 32 years to hit the first million.

The Institute for Scientific Information expanded the Science Citation Index this year. The Science Citation Index 1961, using over five miles of computer tape, was published in five volumes and sold for $700.00. The Science Citation Index 1964 is being issued quarterly with an annual cumulation the whole selling for $1250 to educational institutions. It is a tremendous new approach and concept to indexing, and in many ways is a monumental example of the possibilities of computer-generated tools. The 1961 Index covered 613 journals in the life and physical sciences with a few in the social sciences, and carried 1,400,000 citations taken from 20,000 different publications of which over 80 per cent were journal citations. The expanded 1964 Index carries approximately 2,000,000 citations taken from 30,000 different publications, over 80 per cent of which are still journals. The cost of the Index makes it prohibitive to many libraries, and this is unfortunate. However, the Index does demonstrate the possibility of ferreting out by machines correlated information from the world’s vast serial output and can do it on a volume basis.

Interest in serials was whetted by the appearance of a new section in the Library Journal beginning in January. The section, “New Periodicals,” is to provide a regular up-dating service for Ulrich’s Periodical Directory, and the titles carried will follow the standard entry form used in Ulrich’s and be considered for inclusion in each new edition.

In line with this innovation is the anticipated 11th edition of this directory under the new title, Ulrich’s International Periodical Directory, to be edited by Eileen C. Graves and to consist of two volumes. The expanded coverage of foreign as well as American periodicals will include a total 95,000 titles as compared with 20,000 in the 10th edition. This new edition will carry 20,000 scientific, medical, and technical journals alone, or twice as many as were previously covered in these areas. Volume I, to be published in March 1965, covers the scientific, technical, and medical titles; Volume II, to be ready later in 1965, will cover arts, business, humanities, and the social sciences.

The first edition of The Standard Periodical Directory, 1964-65, which appeared late this year is regarded as a complete guide to over 20,000 periodicals in the United States and Canada.

The “Preface” in this new directory points out that during the past
twenty years periodical publishing in the United States and Canada has more than doubled, and a conservative estimate in readership would be that a 400 per cent increase for the same period has occurred. Reference is made to a subject with which serial personnel are all too familiar—the chameleon-like nature of periodical publishing. "Four out of five periodicals published today did not exist prior to 1940. Over 60 per cent of the periodicals in existence in 1940 are no longer published under the same name today. In addition, each year there is a continuous flood of title changes, mergers, address and price changes, changes in editorial emphasis and readership." It sounds good to hear someone on the other side of the library fence echo our oft-expressed sentiments precisely.

This directory has a subject guide and a table of contents divided into 200 subject classifications each of which carries a class number. The main arrangement of the 544 page volume is alphabetical by the subject classification with an alphabetical arrangement by title under each classification; a separate title index is also included. The entries include the name, address, publisher, editorial scope, year founded, frequency, subscription rate, etc. The brief annotations should prove useful. A periodical is considered to be "... any publication with a regular frequency of at least once every two years." This publication is considered a first attempt at issuing a complete catalog carrying "periodicals" published in the United States and Canada.

A periodical directory of international interest is the Repertorio Analitico della Stampa Italiana, published by Messaggerie Italiane. Somewhat similar in format to Ulrich's, it appeared this year and lists over 8,000 Italian periodicals. Included are live titles and also some recently discontinued. The directory is divided into eleven subject sections with the contents for each section cited in separate classified indexes in Italian, English, French, German, and Spanish. Also included is a glossary of the Italian words and phrases used in the text with a translation to each of the four other languages. The contents are covered by an alphabetic title index giving subscription rates; also included is an index of titles for which details of subscriptions were not available. A 1965 address supplement for the journals has been issued.

Early this year Publisher's Weekly began issuing "Interim Indexes." Three of these are to be issued each year, serving as supplements to the advance information appearing in PW's seasonal announcement issues appearing in January, April, and August; the new indexes will be issued in March, June, and October, and are available on a separate subscription basis.

The long anticipated Cumulated Magazine Subject Index, 1907-1949, originally published by F. W. Faxon Company in 43 annual volumes in combination with the Dramatic Index, was issued this year. This is a cumulated, reprint publication in one alphabet of the Magazine Subject Index only. It is quarto in size and contains three columns, which permits the condensation of the 43 volumes into two. The process of compilation required three years, and, although this item is a bit expensive—

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$490—for some library budgets, the Index does cover material both in terms of titles and subject matter that is not indexed elsewhere. Mr. Faxon’s rule, not to duplicate titles covered by other indexes, did not thwart, even then, a continuous growth in coverage. The 1907 volume contained 79 American and English periodicals; by 1921, 160 titles were covered; increasing to 170 in 1928. Library periodicals were included for the first time in 1918.

Recognition of the importance of and need for indexing services was evidenced when the Ford Foundation continued its support in the amount of $45,500 for the Index to Foreign Legal Periodicals. Numerous other indexing media continued on at an expanded rate in an effort to try and fill basic needs.

The Agricultural Index, published since 1916 by the H. W. Wilson Company, became on October 1, 1964, the Biological and Agricultural Index. The extended coverage under this new title will be for 146 periodicals with a shift in area of concern by the addition of 78 titles whose emphasis is in biology and related fields and of 68 in agriculture. These changes in area of coverage and the choice of titles to be indexed, resulted from voting by subscribers who eliminated the indexing of U. S. Department of Agriculture publications, experiment station and extension titles, and occasional literature, replacing them with other material.

During this 15th year of Scientific American, an anniversary index was issued covering the 180 issues for the period May 1948—April 1963.

Overseas the National Diet Library was awarded a National Science Foundation grant of $20,420 to index Japanese periodicals. This money is to be used to subsidize the completion and printing of the English version of the Japanese periodicals index in the natural sciences.

The first volume (A-E) of the 4th edition of the World List of Scientific Periodicals, edited by P. Brown and G. B. Stratton, was published late in 1963. Two more volumes will complete the edition and be the last to be issued in this format. In the future, additions and corrections to the World List will appear as an annual supplement of the British Union Catalog of Periodicals. This 4th edition contains over 60,000 full title listings of medical, scientific, and technical journals.

In February 1964 Paul L. Horecky and R. G. Carlton completed The USSR and Eastern Europe, Periodicals in Western Languages, which was published by the Slavic and Central European Division, Reference Department of the Library of Congress. This bibliographic guide is an updating and expansion of the Library of Congress publication East and East Central Europe; Periodicals in English and other Western European Languages which was issued in 1958 and has been out of print for some time. Wherever possible, subscription conditions and prices are given; and the entries are arranged alphabetically by country. A subject guide and an index to titles and issuing organizations are also given.

A grant from the National Science Foundation was given the Western Reserve University Center for Documentation and Communications Research in the amount of $74,000 to continue research in “Automation
Processing of Metallurgical Abstracts” to reduce the time lag between the appearance of an article and its indexing.

Public Affairs Information Service entered its 50th year of operation. Beyond its distinctiveness as an indexing tool is the even more unusual matter of having remained for all these years at the nice, round subscription rate of $100, not an insignificant accomplishment when compared with the rates of other service media.

A major revision is to be made in the National Library of Medicine work, the Medical Subject Headings, the cross reference guide to Index Medicus and the medical subject heading authority list. In 1965 the Medical Subject Headings is to contain 579 additional indexing terms making the total 6,380. This increase in the number of terms will result from the content analysis of 222 journals not previously covered; 208 other titles are being dropped.

In September it was announced that the oldest existing international guide to periodical literature, Internationale Bibliographie der Zeitschriftenliteratur, published since 1896, is to be replaced early in 1965 by the new Internationale Bibliographie der Zeitschriftenliteratur aus allen Gebieten der Forschung. This new service will comprise three indexes. The classified subject index of articles which formerly had only German entries will have references in English.

Union Lists

The Union Lists of Serials; a Bibliography, compiled by Ruth S. Freitag of the Library of Congress General Reference and Bibliography Division and issued this year, is a much-appreciated updating of the earlier bibliography of union lists of serials done by Daniel C. Haskell and Karl Brown which appeared in the second edition of the Union List of Serials in 1943. It is also a barometer of the increase in the number of serials and the necessity for the proliferation of union lists as an effort toward a kind of bibliographic control that is so vital both on a regional and national basis.

As a result of the explosion of serial publications in recent years, this list of “union lists” contains 1,218 citations with brief annotations. No claim is made for completeness, although this listing is over three times as large as the one made in 1943 which contained 387 entries. Miss Freitag points out, in her fine introduction, that “... at least 60 per cent of the editions recorded in this bibliography were published since the end of the Second World War ...” Local union lists for the immediate use of a provincial few, along with failure or delay in submitting the legal depository copies, prohibit anyone from claiming completeness for lists of union lists. Entries from 56 countries are arranged geographically, and indexes are included for names, subjects, and geographical locations. It may be purchased from the Government Printing Office for $1.25, and is considered a “best buy.”

Regarding the greatly-anticipated 3d edition of the Union List of Serials, Bernice Field, ALA Representative, the Joint Committee on the Un-
ion List of Serials, reports that, “The latest word I have (Jan. 1965) is that the publication of the third edition of the Union List of Serials is proceeding according to schedule and that it will be published in the fall of 1965, as planned. A year ago the printer estimated that there would be 5,200 pages. That figure has now been revised downward. It appears that there will be approximately 4,700 pages. The publication will appear in five volumes and will be distributed by H. W. Wilson Co.”

The 5th edition of Newspapers on Microfilm, published late in 1963, became available in 1964 and includes about 16,000 entries, representing approximately 4,000 foreign and 12,000 domestic newspapers. Included are all of the microfilmed newspapers which were known to the Microfilm Clearing House of the Library of Congress prior to June 1, 1963. It is available from the LC Card Division for $5.00 and well worth this modest cost.

Among the regional lists issued this year, an enlarged second edition of A Union List of Serials for Mid-American In Libraries of Greater Kansas City and Sections of Missouri, Oklahoma and Kansas was published by the Heart of America Chapter of SLA. The compiler, Idris Smith of Kansas City (Missouri) Public Library, has included in the two loose-leaf volumes the serial listings of 37 libraries in the area. The two volumes cost $15 and are available from the Kansas City Public Library.

A Kansas union list of serials is reported as being in preparation according to the April 1964 issue of The Gamut (bulletin of the University of Kansas Library Staff Association). Report slips have been received from five other libraries, and an estimated 15,000 titles are to be included. The date of publication is not known.

Another regional item is the Union List of Periodicals compiled by R. Cooklock of Wisconsin State College, River Falls. This list contains holdings of the nine Wisconsin state college libraries.

A Union List Scientific and Technical Serials in the University of Michigan Libraries became available this spring in a revised and enlarged edition containing 21,500 entries including cross references. The entries give holdings, including dates for each title. The price of the hardbound volume is $5.00, and it is available from the Order Department, University of Michigan, Ann Arbor.

With the support of the National Science Foundation, the Massachusetts Institute of Technology Libraries published an International Union List of Communist Chinese Serials; Scientific, Technical and Medical with Selected Social Science Titles. The compilers, B. P. N. Shih and R. L. Snyder of the MIT Libraries, have recorded the holdings of over 500 Communist Chinese scientific, technical, and medical journals from 28 libraries in the United States, Canada, Great Britain, Japan, and Hong Kong. There are 100 selected serials in the social sciences, compiled by J. Lindbeck, Associate Director of the East Asian Research Center, Harvard University; and a section listing unidentified or unreported titles. Two title indexes, one for titles in Chinese characters and the other for titles in other languages, round out this valuable listing.

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The Midwest Inter-Library Center has issued Supplement I to Scientific Serials in the Midwest Inter-Library Center which was described in last year's LRTS survey of serial activities. Both the supplement and the basic list may be obtained free from MILC.

A Select List of British Medical Periodicals was issued under the joint imprint of the Royal Society of Medicine and the British Council, for the purpose of helping other countries select and purchase British medical periodicals. Medicine is used here in the broadest sense; the volume costs $1.00, and is available from the British Council.

Five major research libraries in Delaware have published a Union List of Newspapers in Microform. The list is a compilation of titles in these libraries, giving inclusive holding dates and variant titles covering largely 18th and 19th century east coast American newspapers. For as long as they last, copies are available gratis from the University of Delaware Library.

Also of interest to those in the Massachusetts area is the publication this year of the Union List of Periodicals in the College and Special Libraries of Greater Springfield. The list cites titles and holdings of 2,000 periodicals to be found in 18 Massachusetts libraries. It costs $3.00 and is available from the Springfield College Library.

Further bibliographical work relative to eastern United States was done by state libraries, state library associations, and other groups cooperating in the preparation of several union lists in serial format which the Literature Service Associates of Bound Brook, New Jersey, issued: A Union List of Serials in Maine/New Hampshire/Vermont; A Union List of Serials in Massachusetts; and A Union List of Serials in Delaware/Maryland.

Moving away from the immediate geographical location of the east coast, U.S.A., word has been received that an Estonian librarian, Yrjo Aav, living in Finland, has compiled a union list of Estonica in Finnish libraries, Viron kirjallisuutta Suomen kirjastoissa. This compilation lists Estonian titles in 56 Finnish libraries. The titles and index for the newspapers, periodicals, and scholarly serials in this compilation are in Finnish, Estonian, and English.

Richard Pipes of Harvard has brought up the matter of compiling a union list of Russian serials which will give details of the holdings of Russian serials held in United States libraries. (Such a list would be similar to the Bibliothèque Nationale's Périodiques slaves en caractères cyrilliques issued in Paris in 1956 which covers 46 French libraries.) He has been asked to present the proposal along with a budget to the Coordinating Committee on Slavic and East European Resources.

In preparation at the Royal Library of Belgium is a new union list of serials, Catalog Collectif Belge et Luxembourgeois des Périodiques Étrangers en Cours de Publications. The list is being compiled from the 115,000 reports received from 450 libraries on 42,000 current foreign titles. Complete bibliographic details are to be covered, including title changes, mergers, and variant titles for the same item. It will be published
in two volumes and is available from the Editions Culture et Civilisation 115, Avenue Gabriel Lebon, Brussels 16, Belgium, for 2,400 Belgian francs.

Automation

The growing number of problems and proposed solutions for handling serials efficiently and effectively has produced much conversation and print in the past few years. Transformations in the thinking by many have occurred, and, as a result, the manual methods of checking-in, ordering, claiming, and performing the multitude of other operations required in a serials operation are receiving clinical-like scrutiny. The most influential, complex, and largest such examination to date has been the one recently completed at the Library of Congress.

In January of 1964 a report was published by the survey team which had gone to the Library of Congress under a $100,000 grant from the Council on Library Resources to conduct "... a survey of the possibilities of automating the organization, storage, and retrieval of information in a large research library ..." The conclusion reached and cited in the report was that automation was feasible, despite the various problems of access and costs, both in changeover and hardware.1

While a good share of this 88-page report may be of only academic interest to many, it has served to establish a sort of touchstone which possesses variant values for each library situation. It is true that the stirring up of a leviathan such as LC with data processing darts and informational retrieval probes must be done with extreme caution; it is nevertheless an important fact that such an assault has been set down as feasible.

This fact is helpful in stirring up those of a sluggish nature; ironically, this same fact is also a hindrance. On the plus side are the many derivative procedural ideas and bits of information concerning hardware which will probably be available at little or no cost when such a changeover at LC is made; on the minus side is the very real matter of libraries not wanting to go ahead on their own only to find that they have made a costly turn in the road which will hinder them in tying in with the LC system when the day comes that this gargantuan changeover gets under way on a full scale.

In the meantime, however, there are some serial procedures being used or under consideration by various libraries such as Purdue University, Florida Atlantic University, Ohio State University, the University of Illinois Library in Chicago, and the University of California Library at La Jolla, to name a few, which deserve careful attention and encouragement if not adoption.

The Final Report, Serials Computer Project, May 1964, University Library and Computer Center from the Library of the University of California at San Diego, La Jolla, discloses the feasibility of a system of computer control of serial records including binding information in libraries handling from 2,000-10,000 serials. However, for libraries having
less than 1,000–1,500 serial titles, the Report states that it is somewhat
doubtful that a satisfactory computer-oriented system could be developed
unless such facilities were readily available and inexpensive. A caution-
ary word is also set down against extrapolation of the results cited in this
Report in terms of larger collections. However, it seems probable that
expansion could be accommodated for serial units handling up to 20,
000 titles; beyond that range, other elements require a revision of han-
dling and processing procedures.²

The Ohio State University Libraries report that Phase I of an Auto-
mat ed Serials Control Project has been completed. This phase outlines
library requirements for the system and analyzed the feasibility. About
75,000 titles are in the Library’s central serial record; 16,000 are active
titles.

Automation, particularly in the area of serials work, is presently in a
state of vigorous experimentation. Over a dozen systems analysts have
entered the library field this year and, for the most part, are either con-
nected to university staffs or serve in a liaison capacity between a com-
puter center and the library. It is a good sign to see a growing number of
data processing clinics being scheduled where a formal and an informal
exchange of information is made possible. Only a cooperative effort and
a free exchange of information can avoid costly duplication.

 Binding, Preservation, and Reprints

Research and analysis are basic properties in an assessment of this
year’s binding activities. Phase II of the estimated three-year project for
the development of standards for library binding has now passed the two
year mark. This project, under a grant from the Council on Library Re-
sources, Inc., is sponsored jointly by SLA and ALA. It is being carried out
under the auspices of the Library Technology Project in the W. J. Bar-
row Research Laboratory, Richmond, Virginia. Status of the project was
reported late in 1963 in the publication, Permanence/Durability of the
Book. The January 1964 issue of Book Production Magazine carried a
Phase II progress report, “Performance Standards in Library Binding,”
by Forrest F. Carhart, Jr., Director of the Library Technology Project,
which concluded with “... much more work must be done and much
time must elapse before even the minimum objectives of the program can
be achieved.”

The March 1964 issue of the same periodical carried an article, “New
Device Tests Performance of Library Bindings,” by W. J. Barrow, Direc-
tor of the W. J. Barrow Laboratory, which detailed some of the proce-
dures. In it he mentions various machines which are being or have been
tested and used on books to simulate actual wear. An important advance
has been made through the development of the Universal Book Tester. It
is hoped that through the use of this piece of equipment, it will be possi-
bile to predict what the performance of a binding will be under a given
set of circumstances. Further plans include the testing of publishers’ re-
inforced bindings of children’s books, and LTP has extended an invita-

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tion to more university libraries to cooperate in the continuing of the testing of Class A and publishers' bindings.

Another stage of experimentation with binding performance began this year with the appointment by the Library Binding Institute of the United States Testing Company, Inc., of Hoboken, New Jersey, as the laboratory in which the official testing and research projects of LBI would be performed. Dudley A. Weiss, Executive Director of LBI, said the testing and research company would:

1. Participate with members of LBI in "round-robin" inter-laboratory tests;
2. Evaluate and revise the LBI Standards for Library Binding;
3. Test new materials and existing materials for an approved materials list, and;
4. Test comparative durability of textbook, library, reinforced, and regular trade bindings.

This provides an interesting parallel of activities in what is in some respects similar, if not the same, pursuits by two vitally interested groups.

Until recently, in many libraries the binding situation and preservation routines received but minor attention. The realization that late 19th century serials and books were literally disintegrating in the hands of the librarians and the users was always somewhat disturbing. However, until the development of relatively recent photocopying procedures coupled with new binding standards, the matter had for all practical purposes gone downhill without rejoinder.

In September, 1964, a report of the ARL Committee on the Preservation of Research Library materials, The Preservation of Deteriorating Books: An Examination of the Problems with Recommendations for a Solution, was prepared for the Committee by Gordon Williams, Director of the Midwest Inter-Library Center, with the aid of a grant from the Council on Library Resources, Inc. The conclusion reached was "... that the most effective and efficient way to insure the continued availability of this information to all scholars is to establish a central agency that will insure the physical preservation of at least one example of every deteriorating book and that will make photocopies of these preserved originals readily available to all libraries."

Even a non-alarmist might twitch a bit after the impact of this report has taken effect. The magnitude of the task is even more startling by considering the information Mr. Williams supplies along with W. J. Barrow's Laboratory report, Test Data of Naturally Aged Papers, in which, based on an examination of 259 specimen papers, it was indicated that papers made during the period 1701-1900 are highly acidic, many having reached a point where they are equal in strength only to newsprint. The urgency of doing "something" seems clear.

A second study by the Barrow's Laboratory, Spray Deacidification, offered no total solution, particularly for long runs of serials. However, a
spray was developed which could be applied to almost all library material increasing the longevity of papers with a high acid content at a cost of about ten cents per one hundred pages.

In October at a session of the meeting of the Society of American Archivists, the matter of laminating materials was discussed. Among the various papers presented, including one from Mr. Barrow, it was stressed that again it was of vital importance that acids be removed from documents before being laminated, and that to ignore this vital step could actually speed up the deterioration of the documents.

In view of these rather arduous methods of preservation, it is quite likely that the number of serial reprints, not only as a source for filling in backfiles or obtaining files for new libraries, will continue, but an additional market for replacements appears likely. In considering a single serial title of fifty or a hundred volumes in terms of the time and expense required to deacidify the set, the purchase of a new reprint on relatively non-acidic paper would seem to be the more practical move.

Huge reprint programs and new developments in photocopying methods appear to measure up reasonably well alongside paper preservation programs for extensive runs of serials.* The fact that more and more companies are entering into the reprint business may stabilize prices and, at the same time, provide a competitive field which will reduce or eliminate the duplication of serial reprints.

Documents

To help implement the Depository Library Act of 1962, a grant of $5,000 from the Council on Library Resources, Inc., was made to compile a list, just published: *Publications of the Non-GOP Imprints*, compiled by Jennings Wood. It is available from ALA for $5.00. This project was handled by the ALA-RTSD Advisory Sub-Committee on Depository Libraries of the Interdivisional Committee on Public Documents. Included in the list of materials are the 1963 Government publications issued from sources other than the Government Printing Office.

At the SLA Science-Technology Division meeting during SLA’s Annual Convention this year, it was pointed out that the U. S. Government Research Reports series is to continue only to January 1, 1965, when a new series of indexes takes over.

This new index series is to cover all Government technical reports and will have author, subject, corporate, and contractor indexes. It will be issued in conjunction with the establishment of a Clearinghouse for Scientific and Technical Information under the Bureau of Standards, superseding and expanding the functions of the former Office of Technical Services. This “clearinghouse” is the first step in a national plan to establish a centralized bibliographic control of all U. S. technical reports.

The Readex Microprint Corporation issued late in 1964 an *Index to the Microprint Edition of JPRS Reports*. The Index is a correlation of

* Editor’s note: The problem of mutilation and theft is also driving public libraries, at least, to more and more use of microforms.
the Government Printing Office entry numbers found in the *Monthly Catalog* with the report numbers the JPRS office assigns. Readex plans to keep this index up to date with annual supplements. The correlation of the entry numbers permits the locating of any JPRS report if only the original number of that report is known. Gratis copies have been sent to subscribers to the microprint edition, and additional copies may be obtained for $10 each from the Readex Microprint Corporation.

This year an enlargement and revision of the 1962 edition of volume 1 of John L. Andriot's *Guide to U. S. Government Serials & Periodicals* was issued. Volume 2, *Releases & Other Ephemeral Material*, also appeared. The latter contains 900 entries outlining releases and ephemeral serial publications published by federal agencies. With the appearance of volume 3, *Field Agency Publications*, the set will be complete and thereby serve as a useful tool outlining the United States Government's current publishing program.

In December, 1963, the University of Illinois Graduate School of Library Science published *Occasional Paper No. 69, “Microforms of U. S. Government Documents,”* by Helen McReynolds. This paper reviews the microreproduction field in terms of the microforms used for United States Government publications, and it gives information regarding various microreproduction programs and government agencies involved.

A *Cumulative Checklist of United Nations Documents* beginning with volume 14 of the 1963 *United Nations Documents Index* is a new serial reference tool now available from the Sales Section of the United Nations for $4.00 a copy. The *Cumulative Checklist* is the result of consolidating the checklists appearing in the monthly issues of *UNDI*. Complete bibliographical descriptions are given for each document, as well as a full account of the document symbols used during the year. The final section of this new 245-page checklist cites the “UN Periodicals Published in 1963.”

Bibliographical control of Canadian public documents moved ahead this year with the appearance of Olga B. Bishop's *Publications of the Government of the Province of Canada, 1841-1867*. This 350 page volume was published by the National Library at Ottawa and may be purchased from the Queen's Printer, Ottawa, for $3.00. It covers each agency in full detail and has a subject index.

The second edition of a Korean government publication, *Ch'ôngbu Kanhaengmul Monglok [List of Government Publications]*, has been published by the Ministry of Public Information in Korea. It contains over 400 titles of official publications issued from January-November 1962; the first edition covered the period, 1948-61. In addition to being a useful tool for handling official publications, it may be regarded as one of the scarce Oriental national bibliographies of official publications.

A final note of documental interest is word that RTSD-RSD Interdivisional Committee on Public Documents (Thomas S. Shaw, Chairman) is compiling a directory of document librarians or persons responsible for government documents in the United States.
Other Serial Activities

Copies of the American Standard for Periodical Title Abbreviations, Z39.5-1963, were made available this year by the American Standards Association. This standard is the first of its kind, being a compendium of abbreviations found in the Bibliography of Agriculture, Biological Abstracts, Chemical Abstracts, and the Index Medicus. It is the rewarding result of several years of research by ASA's Z39 Subcommittee on Abbreviations for Periodical Titles under the chairmanship of James Wood, Librarian, Chemical Abstracts Service. The work was made possible through grants from the National Science Foundation and the Council on Library Resources, Inc. The compendium contains 2,428 abbreviations of words usually found in periodical titles.

In line with Z39 standardization activities, the Serials Policy and Research Committee has recommended that action be taken to see if publishers can standardize the form and location of bibliographical information appearing on periodicals, beginning with those journals which have as their path of orbit, the world of library literature.

Of special interest to persons who find serials stimulating as an up-to-the-minute means of expression, is the publication of the second edition of Theodore Peterson's Magazines in the Twentieth Century. Dean Peterson (Dean of the College of Journalism and Communications at the University of Illinois) has traced the modern American "magazine" from a point just before where Mott leaves off in 1905. Through the examination of annual reports of the various publishers, Standard and Poor statements, and other similarly staid sources, he has given the book an academically significant body of factual information, more than enough to make it the existing standard for information in this area for the period involved. However, it is the manner in which he has analyzed and woven these facts together, along with his adroitness in presenting the otherwise rather stiff factual material, that makes it a readable history of one of the social phenomena of the century—the contemporary American "magazine" with all of its various complexities of content and publication histories during the past sixty years.

An item of historical value is the information that the Kenyon Review, one of this country's oldest literary magazines, published its 100th issue, marking twenty-five years of uninterrupted service. This special anniversary issue was dedicated to John Crowe Ransom, founder and editor for 20 years.

A new ALA publication, Library Technology Reports, under the editorship of William P. Cole, will begin publication on a subscription basis in January 1965. These "Reports" are to be issued six times a year under the direction of the office of the Library Technology Project. They are to be issued in a format which will permit keeping them in a standard 3-ring looseleaf notebook format, and the subscription rate is to be $100 a year. In this manner, the results of studies made by LTP can be readily disseminated, along with abstracts of significant current literature on li-

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library technology. It is also planned to include news of LTP programs and answers to questions received by the regular information service LTP maintains. The Council on Library Resources, Inc., is underwriting this publication during its initial phase. From the grant of $230,000 from CLR to the American Library Association for support of the Library Technology Project this year, $44,232 has been allocated to help this bimonthly service publication underway.

The first monthly issue of a significant book selection tool, Choice: Books for College Libraries, appeared March 1964. This new book-reviewing medium for college libraries is being published by the ALA Association of College and Research Libraries with the aid of a grant from the Council on Library Resources, Inc. A description of the publication and details concerning it were covered in last year’s survey of Acquisitions activities in LRTS. The subscription rate is $20 a year for 11 issues (there is a combined July/August number) and subscriptions may be placed with the Subscription Department at ALA.

Costs of serial services and periodicals continued to increase this year as is indicated by the “U. S. Periodicals and Serials Services, Cost Indexes for 1964,” carried in the July issue of the Library Journal. Costs of replacement issues as received from several of the large library distributors for this type of material are also on the increase. These continued price growths, coupled with the amoebic-like appearance of new periodicals, incessantly demands serial budget increases in order just to keep even.

As with most things involving serials, a conclusion seems out of order. The areas and titles covered in this survey are items which in themselves appear to reveal tendencies in the world of serials for 1964. There seems little doubt that broader horizons are unfolding in serials work, and much of the land revealed is uncharted.

REFERENCES

EDITOR RECOMMENDS:

The Reward of Reading, A Guide to the Library, is an attractive and appealing booklet written by William Ready and Richard Matzek and published by the Sacred Heart University Press of Bridgeport, Connecticut. The arrangement is alphabetical with the information under each item a very brief and light-touch essay.
As in previous summaries of developments in technical services, in 1964 there were continued efforts to clarify conditions and procedures in the field. Specific attention can be called to activities under the following headings: (1) organization and administration, (2) continued expansion of centralized processing, (3) documentation and information storage and retrieval, (4) personnel and training, (5) binding and preservation of materials, (6) quarters and equipment, and (7) development of standards for special libraries.

Organization and Administration

The most important publication in the general field of the technical services is Esther Piercy's chapter in *Local Public Library Administration*. This comprehensive discussion of "Organization and Control of Materials" includes the following topics: administration of the work, centralization and cooperation between libraries, efficient planning, book selection, acquisitions, ordering books, book identification, the catalog, preparation and filing of catalog cards, classification, descriptive cataloging, subject cataloging, variants to full cataloging and classification, withdrawals and discards, physical preparation and conservation, shelving and storage, circulation, acquisition and control of nonbook materials, and conclusions. Under several of these major headings are descriptions of operations, materials, personnel needs, and arrangements of work. In general, Miss Piercy has sought to indicate common problems for the public library and, where possible, to suggest alternative procedures. She has emphasized accepted and successful practice, and has singled out, in appropriate places, any applicable standards or rules. Even though she directs her attention to the needs of the individual library, she recognizes problems of growth and cooperation. In her conclusion, she writes: "In today's trends toward expansion, cooperation, amalgamation, rapid change and flexibility, new paths in the organization of materials and collections are constantly needed. During the next half century this area of library work [organization and control of materials] may well be that most altered, and almost certainly will be that most challenged."

Another work of interest to technical services personnel, as well as to other librarians, is Paul Buck's *Libraries and Universities*, edited by Edwin E. Williams. This book is a collection of addresses and reports.
which includes thoughtful discussions of administrative problems generally, as well as contributions on such matters as storage centers (Making the Collections Accessible), expense of operating libraries (Values and Costs), the relations of library units (Coordinated Decentralization), and staff (Recruitment and Training of Professional Librarians).

*Resources of North Carolina Libraries,* prepared by the Governor's Commission on Library Resources and edited by Robert B. Downs, Dean of Library Administration at the University of Illinois, exemplifies the trend toward cooperative library service which has been increasingly emphasized in recent years. Among other recommendations the Commission urges closer correlation between the State Library and the research activities of other agencies of the state government, and cooperation with the public libraries of the state. It is said that the State Library should work toward a more complete union catalog of the holdings of North Carolina public libraries, coordinating such efforts with the expansion of the Interlibrary Center's union catalog at Chapel Hill. Larger units of service are recommended as the goal of the public libraries of North Carolina, aiming toward consolidating the smaller county and municipal libraries into regional systems under centralized direction.2

*The Cornell Library Conference,* published this year, is a collection of papers presented at the dedication of the central libraries at Cornell in October, 1962. The problems of growing institutions (including student bodies, research staffs, faculties, and new units) are discussed, together with the development and organization of collections.

A survey of the full range of technical services of the University of New Mexico Library was conducted by M. F. Tauber.3 This report treats the organization of work in the several areas of the technical services, and deals with relationships, responsibilities, programs of work, inadequacies, and proposals for the future.

*Standard Times for Certain Clerical Activities in Technical Processing,* by Henry Voos, was issued during the year under the imprint of the Technical Information Branch, Picatinny Arsenal, Dover, N. J., although it was a dissertation submitted for the doctoral degree at Rutgers University. Such matters as pasting book pockets, date due slips and book plates; applying plastic covers; erasing; proper marking of library materials; graphotyping; tying pamphlets or preparing them for bindery; catalog card typing and related matters; lettering books; and library supervision are discussed. A section deals with applications of the data. Mean times are provided for the various clerical functions, and the author suggests that "the use of standard times will permit library administrators to know what it costs them every time they deviate from a standard procedure" (p. 99).

**Centralized Processing**

There was widespread progress in efforts toward centralization of technical services during 1964. The Committee on Shared Cataloging of ARL, at the annual meeting of the American Library Association in
St. Louis, recommended studies to provide fundamental facts on the characteristics of original cataloging and the cost of cataloging as a basis for a program of shared cataloging. Two supplemental studies on the characteristics of Slavic cataloging and the present cost of PL 480 cataloging are to follow.

Centralized Processing, Recent Trends and Current Status: a Review and Synthesis of the Literature is the title of a bibliography prepared by M. Hanley at the University of Illinois Graduate School of Library Service which provides a guide to further orientation in this area. Space does not permit discussion of the many descriptions of centralized processing which have appeared in the literature during 1964. In passing, however, reference should be made to Elizabeth Adcock's "Comparison of the Operation of Various Processing Centers," V. J. Aceto's "... Look at Central Processing in New York State," central processing at the Westchester library system, C. E. Wendel's "Book Processing Center, Orlando, Florida; a Case Study," and J. R. Hunt's "Historical Development of Processing Centers in the United States." Barbara Westby's directory of commercial cataloging services, published in the Library Journal (April 1, 1964), may be useful to technical services' administrators handicapped by staff shortages and not yet included in cooperative programs.

Earl Farley, University of Kansas Libraries, has described efforts at the University of Kansas "to cope with the deluge of printed materials..." in an article entitled "Combined Procedures for Technical Processes" which appeared in the summer issue of Library Resources and Technical Services. He describes adaptations of photography, Xerography, and offset printing, similar to those which many libraries have developed, and presents cost figures which are of interest. N. G. Guilding describes the duplication of catalog entries in the Durham University Library and the centralization of their production using Xerox 914, in a paper published in the December, 1964, issue of the Journal of Documentation.

The economics of publishing library book catalogs in book form have been studied in a new report prepared for the Stanford University Libraries by two members of the staff of the Advanced Information Systems Division of Hughes Dynamics, Inc., Sherman Oaks, California. The report was prepared with the aid of a grant from the Council on Library Resources, Inc., and was intended to assist not only Stanford, but other libraries as well, in the economic and procedural questions involved in deciding what form the catalog for a new under-graduate library should take. The new Stanford Library is expected to begin with 40,000 titles (60,000 volumes) and, for the sake of this study, to add 10,000 titles per year until it totals 100,000 volumes. The possibility is under consideration of a catalog to be kept in each pavilion of four floors of the library, to be distributed at various locations on the campus, and to be available in subject parts for student purchase. Six basic methods for producing catalogs in book form are considered: (1) reproduction of Library of Congress cards by photo-offset from shingled copy; (2) reproduction from cards specially typed and shingled; (3) reproduction from typed pages."
(4) reproduction from tab cards; (5) reproduction from copy prepared for sequential cameras; and, (6) reproduction by means of several forms of computer composition. Time and cost factors are analyzed, and information is expressed in algebraic form. An annotated bibliography and a list of equipment manufacturers is appended to the report.

The book catalog is the subject of a series of papers which appeared in *Library Resources and Technical Services* (Fall, 1964). Papers were contributed by Ralph H. Parker, University of Missouri Library; Margaret C. Brown, Free Library of Philadelphia; Phyllis A. Richmond, University of Rochester; Bob Jones, the Junior College District of St. Louis; Catherine MacQuarrie, Los Angeles County Public Library; George B. Moreland, Department of Public Libraries, Bethesda, Maryland; Ira Harris, Rutgers University; and Wesley Simonton, University of Minnesota. Feasibility, costs, reader reaction, staff reaction, and rules of entry are considered in broad perspective. This series of papers provides further orientation for those individuals who are not acquainted with the production and use of book catalogs.

**Documentation and Information Storage and Retrieval**

The International Federation of Library Associations has long been interested in documentation. The first International Study Conference for Information Retrieval was held in 1957. Much progress has been made since that time both in the design of classification systems and in the application of machines to information retrieval. The January, 1964, issue of *IFLA News*, issued from the Secretariat, British Museum, London, contains a review of the developments in various parts of the world, including the use of computers at Western Reserve University Documentation Center, various conferences on librarianship and documentation, the "medium edition" of the UDC by FID, and publications of societies and associations. It was announced that the Association of Research Libraries joined the International Federation of Library Associations. *Libraries in the World: A Long-Term Programme for the International Federation of Library Associations*, published by IFLA, provides an insight into the approach to such matters as collections, legal deposit, the growth of libraries, union catalogs, the use of materials, collections of rare materials, types of libraries, international exchange of publications, and copyright.14

The second International Study Conference on Classification Research was held in Elsinore, Denmark, September 14-18, 1964. Since early doubts about the feasibility of machine retrieval have all but disappeared and it has been widely recognized that paradigmatical organization is an essential part of any effective machine system, many theoretical issues have been clarified. The second Conference reflected the multi-disciplinary approach of structural linguistics, semantics, mathematics, logic, and epistemology, and pointed the way to further study of the mutual inter-relationships of thought and language, study of terminology in scientific and technical fields, the construction of controlled vocabularies, the study
of methods for embodying "analytic" relations given by context (so-called syntactical structures), the analysis and evaluation of functional relationships between the various components of systems, and the study of behavioral processes which largely determine the choice of semantic categories. The need for better design in new classifications was emphasized. Standardized techniques for the evaluation and measurement of the dimensions of a classification system were discussed with emphasis on studies of the reliability and consistency of results of classification and more precise and reliable methods of measuring documentary relevance to search queries. The formation of national groups for the study of classification and retrieval languages was encouraged.

Automation and the Library of Congress, a report by Gilbert W. King and his colleagues, appearing in January of 1964, is the result of an inquiry in progress since March 1961. This document opens the way for work toward the development of a national system in which the research libraries (general) of the country might be linked through the use of automatic devices. The significance of some of the conclusions of this publication was emphasized with the announcement, in midsummer, 1964, that the Index Medicus was about to be printed from computer-controlled photo-composition, performed at a rate of 300 characters a second. The Council of Library Resources, Inc., has concentrated its work in the field of technical storage and retrieval of information through plans for the creation of a laboratory or center involving the activities of specialized scientific personnel. The Council initiated research directed by J. C. R. Licklider under a contract with Bolt Beranek and Newman, Inc., Cambridge, Mass., starting in 1961 on the subject of "the library of the 21st century", and Dr. Licklider's report, which appeared in 1964, summarizes the findings of 12 studies. The report, as a whole, represents an imaginative conception of the manner in which man, profiting by his ability to manipulate records electronically, may make use of recorded knowledge. Topics explored include the state of computer art in relation to library functions, improvements of this art, and specific experiments and studies in computer applications to information processing. It is obvious that the attainment of the system described will involve the prior solution of some tremendous problems at enormous cost and the expenditure of a great deal of time.  

The Library of Congress published in 1964 the proceedings of the Conference on Libraries and Automation held at Airlie Foundation, Warrenton, Virginia, May 26-30, 1963, under the sponsorship of the Library of Congress, the National Science Foundation, and the Council on Library Resources. The program was concentrated on the major topics affecting mechanization, and was divided according to the following areas: "The Library of the Future," "File Organization and Conversion," "File Storage and Access," "Graphic Storage," "Output Printing," "Library Communications Networks," and "The Automation of Library Systems." The sponsors recommended that grant-making organizations eliminate project reports and insist on publication in the open literature and urged better communication within the library community.
report, *Libraries and Automation*, includes the contributions of individuals selected as participants because of their excellence in the field, and is, therefore, a publication which might well be on the reading list of all librarians.

The American Documentation Institute published the proceedings of the October 5-8, 1964, conference on Parameters of Information Science is a 521-page volume dedicated to the memory of Hans Peter Luhn, the President of the Institute who passed away in 1964. The proceedings of this Conference provide discussions of progress in the field in the following general areas: “Information in Decision Procedures,” “Educational and Professional Aspects of Information Sciences,” “Information and Data Centers and Service,” “Document Storage and Display and Online Machine Mediation in Time-sharing,” “Realization of Associative Memory Device and Techniques,” “Analysis, Indexing and Correlation of Information,” and “Symbolization and Transformation of Information.” A KWIC index is appended to the volume.

A report of the Committee on Modern Methods of Handling Chemical Information was published as Publication 1150 of the National Academy of Sciences—National Research Council in a 467-page, paper-covered volume entitled *Survey of Chemical Notation Systems*. This publication includes a bibliography of 328 entries, reports of interviews with 120 individuals representing 14 chemical manufacturers, 18 pharmaceutical manufacturers, 9 government operations, 8 independent laboratories and service organizations, and 9 individuals active in the field but not affiliated with such organizations.

Reference should be made to the IBM Research Division’s Experimental Computer System for Instruction which was announced in September of 1964. This system is based on standard IBM equipment, but incorporates an experimental computer language that makes it simple for educators to “put courses into the computer”. The College of Education of the Pennsylvania State University, University Park, is undertaking an experimental study in cooperation with IBM to prepare material for computer presentation and to study its effectiveness. Faculty members at Penn State are preparing four courses for use by students at a typewriter station located on campus. This station is connected via commercial telephone lines to an IBM data processing system at IBM’s Watson Research Center in Yorktown, New York.

“The CDC-CDCR Documentation Project” is an experiment in mechanized methods for the storage and retrieval of communicable diseases information supported by National Institutes of Health grants and conducted by the Center for Documentation and Communication Research, School of Library Science, Western Reserve University, in cooperation with the Communicable Disease Center, United States Public Health Service, Atlanta, Ga. Though further investigation and evaluation are necessary before the project can be fairly appraised, a progress report was issued by Mary S. Waddell, Librarian at the Communicable Disease Center. This report can be found in the *ALA Bulletin* for January, 1964.
The concept of Key-word-in-context indexing has been described in the literature and has been applied in a number of instances during 1964. For those less well acquainted with the use of KWIC, the article, "KWIC . . . Is it Quick?" appearing in the same issue of the Bulletin, may be of interest, in that a simple exercise is described which tests the speed with which a KWIC and two other indexes lead to the solution of selected reference problems.

The Medical Literature Analysis and Retrieval System (MEDLARS) project at the National Library of Medicine is a computerized information retrieval system, developed over the past two years and put into operation in 1964, with three major types of products: 1. one-shot demand searches on questions of great complexity; 2. recurring bibliographies in special fields of the medical sciences; and 3. composition of a comprehensive periodical index, the Index Medicus. "The Development of MEDLARS" is described by Frank B. Rogers, the former Director of the National Library of Medicine, as are the "Data Processing Aspects of MEDLARS" by Charles J. Austin, head of the Data Processing Section at the Library's Bibliographic Services Division in the January, 1964, number of the ALA Bulletin.

Mortimer Taube, Documentation Inc., who has been an integral part of the development of the field of documentation, has prepared a discussion of the distinction between a scientific discipline and a professional activity, and designating information technology as professional. This paper, appearing in the January, 1964 Bulletin, also presents a discussion of the implications of the computer for librarianship.

Strengthening and Coordinating Reference and Research Library Resources in New York State, prepared for the New York State Education Department by Nelson Associates, Inc., in 1963, but not generally available until 1964, includes a chapter entitled: "Possible Applications of Automatic Data Processing" which bears consideration in our present review of developments in the field of technical services. Four broad types of data processing equipment are considered: (1) direct machine searching of catalog files (machine information retrieval); (2) machine indexing and abstracting; (3) routine record keeping; and (4) catalog maintenance and preparation of printed book catalogs. The following conclusions are of interest: "For large general research collections the use of automatic data processing for direct demand search of machine readable catalog files is not economically sound and would not produce results superior to those already available by conventional means. Consequently, it would not be feasible to establish massive electronic data centers for identifying and locating materials held in various libraries throughout the state. Using machine analysis to assign subject headings or prepare abstracts is still in the developmental stages. . . . The use of data processing techniques for certain routine administrative record-keeping functions is widely accepted and can be applied successfully to libraries. The cost of operation for small libraries, however, may be prohibitive. The application of data processing equipment to the maintenance of library catalogs and

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production of book catalogs and printed listings may be a worthwhile application. There is not sufficient information available to make a clear determination at this time.

Perhaps the most impressive activities in documentation and information storage and retrieval have been made by the Federal government. The acceleration of efforts to coordinate the handling of technical information has been abundantly apparent to individuals who systematically refer to lists and indexes of government reports. A view of national patterns of information services is concisely presented in a report of the Committee on Scientific Information of the Federal Council for Science and Technology, Status Report on Scientific and Technical Information in the Federal Government, issued as PB 181541, June 18, 1963, but not generally available until 1964. This report summarizes "the recent advances and the present status of Federal efforts to improve the handling of scientific and technical information." The summary includes the statement: "Much has in fact been accomplished, but it is clearly recognized by all that still more is urgently necessary."

Information retrieval as such has not been confined to the natural and the biomedical sciences and technologies. Developments in the social sciences are described in some detail in the June, 1964, issue of the American Behavioral Scientist. Under the title "Information Retrieval in the Social Sciences: Problems, Programs, and Proposals," the editors, Ted Gurr and Hans Panofsky, have assembled useful papers on research in systems and technologies, data for social research, retrieval systems for data archives, literature retrieval problems and solutions, and library programs.

**Personnel and Training**

A new Center for Documentation and Information Retrieval has been established in affiliation with the Library School of the University of Minnesota. Wesley C. Simonton, Associate Professor of Library Science at the school, has been named the Director. The Center was established to carry out instruction in the field and to promote research "aimed at the improvement of techniques for acquiring, cataloging, storing and retrieving information in all subjects."

Though no pronouncements, resolutions, or plans issued from a Conference on the Education of Science Information Personnel held in Cleveland, Ohio, July 27-28, 1964, brief mention should be made of this Conference intended as a sequel to the conferences on training convened at the Georgia Institute of Technology in October, 1961, and April, 1962. The Conference provided a medium for the generation of ideas and evoked confidence that progress has been made in the formulation of university programs and the thinking behind their development. A distinction was emphasized throughout between the science information specialist and the information scientist. It was recognized that this distinction not only influences the curriculum and staff at a university, but also the expected role for which the graduate is trained. Interests of the group
ranged from traditional librarianship through relatively standard clerical applications of machines to the theoretical studies in mathematics and linguistics leading toward new methods of transmitting and communicating information. The consensus was not that each library school augment its activities to include information sciences research, but that the "fruits of research" be shared through the introduction of new points of view from the information sciences into the curriculum according to school interests and missions. Contributions from many disciplines and cooperation among many departments appear necessary.

The 1964 Midwinter Conference of the Association of American Library Schools provided an opportunity for library educators to discuss the curriculum, particularly the relationships between the basic, or core, courses and the other courses in the curriculum leading to the master's degree. The Commission recommended a Center for Research and Experimentation in Library Education and Personnel Administration. Chairman Richard H. Logsdon's detailed report calls for a Center "under the direction of an officer comparable in rank with the Deanship of a major university." The Center would investigate three major questions: 1. What is the character of librarianship—now and in the foreseeable future? 2. What is the program of professional education needed to fulfill these requirements? 3. What kind of an action program throughout the profession will be necessary to implement 1. and 2.? Though the discussions on a National Plan for Library Education have been extensive, progress along these lines has been limited. Referring to the activities of the AALS and the Board of Education for Librarianship, Ernest J. Reece remarks, "The reservoir of information ... although extensive and rich in suggestion, falls short of sufficiency on several scores. Aside from the probable need for modernization, it is fragmentary; its parts commonly reflect limited viewpoints, or show little awareness of overall problems as the schools must see them; it is permeated with opinion as against substantiated facts; and above all, its character and its form too often indicate small concern for the principles ordinarily governing research. Its value therefore depends upon winnowing and evaluating its elements, ordering the residue so that the determining factors stand out, building upon such essentials and welding them into a cogent formulation so far as they belong in that."17

For orientation in the general concepts of education for librarianship, the reader may wish to review the articles appearing in the Journal of Education for Librarianship. Louis Shores contributed a paper entitled "The College of Art, 1984" which presents an interesting perspective.18 "Some Considerations in Founding a Library School", appearing in the Journal of Education for Librarianship (Fall, 1964), presents, among other considerations, a detailed description of the training of catalogers. Jon R. Ashton's comment: "In recent years the area of greatest dissatisfaction to library school students and staff has been cataloging and technical services" is primarily connected with the teaching of descriptive cataloging at an advanced level. Dr. Ashton considers it a possibility that "cataloging..."
will be learned in vivo rather than in vitro" and states that "perhaps the proper procedure for a new library school is to defer emphasis on descriptive cataloging to an advanced course which may be elected by the student really interested in the subject”. As is the case with other generalizations about the teaching of cataloging, Dr. Ashton’s statements appear to be related to his experience.

Although there has been no special work during 1964 dealing with the training of technical services personnel, there are other general papers which include discussions of the teaching of cataloging and classification. In the spring issue of the Journal, Paul Dunkin lists the contents of a beginning course in cataloging. This list is comprehensive, though there are some omissions, and no effort has been made to report on the course at Rutgers where Dr. Dunkin is a professor in the field. Significant observations are made on the relation of cataloging and classification to the entire framework of librarianship. Documentation, bibliography and reference, administration and cost analysis, and the history of books and libraries are considered. Some of Dr. Dunkin's comments on students are interesting, especially "the weird ones who will take advanced cataloging courses." In his summary, Dr. Dunkin includes the statement: "The curriculum of the graduate library school should try primarily to develop attitudes rather than to instruct and drill in techniques. But the beginning cataloging course, by its very nature, and because of the needs of the people who take it, must be considered chiefly with practice. Only if he knows cataloging practice in some detail can the student develop any intelligent attitude toward that practice. The burden of developing an attitude toward cataloging thus falls most of all on courses other than the beginning cataloging course.” In the “Discussion Group Summary” following the paper, which was prepared by Florrinell F. Morton, exceptions are taken to some of Dr. Dunkin’s suggestions, particularly his emphasis on practice in the beginning course (the term “practice” was later clarified), and the division of students in courses according to interest level in cataloging.

*Bases of Modern Librarianship: A Study of Library Theory and Practice in Britain, Canada, Denmark, the Federal Republic of Germany, and the United States*, edited by Carl M. White, contains many references to acquisitions, cataloging, classification and arrangement of materials, reproduction of materials and conservation, though the volume is not strictly on technical services. Lucile Morsch comments on some of these practices in the United States in her discussion of “Academic and Research Libraries in the United States.” The volume contains a number of interesting illustrations. It was published by Pergamon.

Estelle Brodman, of the Washington University School of Medicine, has prepared a comprehensive account of the “Education of Medical Librarians Around the World” which appears in the January issue of the *MLA Bulletin*. Though a specific article describing the training of medical librarians in England, the European continent, the United States, Latin America, Israel, and Asia with special reference to the level of training,
Dr. Brodman refers to the curriculum and discusses training for librarianship in general. For technical services personnel in the medical library field, the article of Margaret P. Russell, University of Birmingham Medical School, on “Education and Training of the Medical Librarian in Great Britain,” which appeared in the same issue of the Bulletin, may be of passing interest. Other papers in the issue consider problems of documentation, management, and cooperation.

A report of a study carried out by Aslib Research Department during 1962 and 1963 was published in 1964 under the title: Technical Libraries: Users and Their Demands. In spite of the title of the report and the primary concern of the study with user group identification, a considerable amount of information about technical libraries and librarians in general is provided.

**Binding and Preservation of Materials**

The W. J. Barrow Research Laboratory, Richmond, Virginia, is the only organization in the country devoted exclusively to study of problems connected with the physical book. The second and third publications in the Barrow Laboratory series (Permanence/Durability of the Books) appeared in 1964. Report II, Test Data of Naturally Aged Papers, is concerned with reporting an examination of 259 specimens of aged writing paper from the period 1425-1900. Eight categories of paper, ranging from “high strength” down to “near dust” are defined, and various preservation measures are suggested, including storage at lower than room temperature. An evaluation of tests used to predict the performance of paper is presented, together with reports on an investigation to determine desirable initial tear resistance values for book papers, and an investigation of the results of binding book papers in machine-direction and in cross-direction to the spine. The test data gave additional support to results of earlier studies indicating that “neither all rag nor part rag content alone necessarily assures performance in book papers, since acidity, fiber length, etc., affect the permanence and durability of paper of any type.”

*Spray Deacidification*, the third of the series, *Permanence/Durability of the Book*, presents the results of a study which Mr. Barrow was commissioned to do by the Council on Library Resources in response to the concern over the widespread deterioration of paper in archives and library book collections. In *Spray Deacidification*, a method of treating weak papers is described which is effective for both single sheets and bound books. This method involves the use of a concentrated magnesium bicarbonate solution, sometimes in combination with alcohol to reduce the cockling caused by water. The method described for the treatment of paper offers the possibility of a great increase in the longevity of overly acid papers. The Barrow Laboratory’s estimate of cost for spraying books is about ten cents per hundred pages, and about two cents more if alcohol is added. In trials it was found that “the spraying process can be applied efficiently to nearly all library and archival materials, with tentative findings of approximately five minutes (total operation) for treating 100
6" x 9" sheets; two minutes each (total operation) for treating 18" x 28" sheets and maps; and 37 minutes (spraying only) for treating 300-page books."19

The durability of paper has been a topic of interest and concern to the library profession for a considerable period of time, as reflected in the report of the Librarian of Congress in 1898 and in numerous statements in the intervening years. The Director of Publications of the Council on Library Resources, Lee E. Grove, has written a paper which may be read in the September, 1964, issue of College & Research Libraries, entitled "Paper Deterioration—An Old Story." Mr. Grove recounts the growing concern about the durability of paper beginning with Johann Tritheim, a Benedictine abbot, in the fifteenth century, and traces the problem to present-day developments in the preservation of paper. The problem is aggravated, of course, by the production of inexpensive books to meet popular demand, which, as a consequence of the need to keep the price low, are printed on weak paper.

Library Quarters and Equipment

"Shortly after World War II a new type of public library building began to emerge in all sections of the country. The contemporary library building is functional, beautiful, and accessible. It is a friendly building with a street level entrance. There is an unobstructed view of the interior which is an invitation to reading. It is a building designed to fit the program of library service. . . . It is a major challenge to design buildings which can (1) provide adequate space and facilities for peak loads, and (2) be operated economically when library use slackens. . . . While there is no easy solution to problems such as these, the public library buildings of today and tomorrow promise to become increasingly beautiful and functional. To attain this objective, however, library builders and planners must keep abreast of new technology and its potential as it affects the needs of readers and building design. . . ." These few statements from the chapter in Local Public Library Administration on "Public Library Buildings" contributed by Keith Doms, reflect our present-day concept of the public library building. Mr. Doms' account in the International City Managers' Association book covers the planning team, planning stages, library location, remodeling, branch buildings, bookmobiles, maintenance suggestions, and furniture and equipment, and extends over 30 pages. Though written specifically for public libraries, much of this chapter may be of interest to librarians in other types of libraries. Mr. Doms' discussion of furniture and equipment and their relation to reader comfort, ease of operation, replacement, repair, and building maintenance are applicable in any library situation, as are his statements about lighting and sound control.

Development of Standards for Special Libraries

The standards set for a library are a measure of the efficiency of service. The American Library Association published Public Library Service—A
Guide to Evaluation, and Minimum Standards in 1956. Standards for College Libraries were set forth in 1959, and those for School Libraries and Junior College Libraries in 1960. Standards for State Libraries were published in 1963. In each case the starting points were different, and the points of view varied accordingly. In the case of special libraries, it has long been maintained that each library is unique. However, each special library “is a major source of information in the organization it serves” and the objectives and standards set down by the Special Libraries Association, and published in the December, 1964, issue of Special Libraries, proceed from that point. Following this initial statement of the first objective of a special library as a major source of information, it is emphasized that the special library acquires, organizes, maintains, utilizes, and disseminates informational materials germane to the organization’s activities, and serves all who have appropriate need of its service. “The quality of the special library’s personnel is the most important factor in the effectiveness of the library as an information center for the organization.” The responsibilities and qualifications of personnel who are competent to carry out the objectives and functions of the special library are specified in detail, followed by a general description of the collection, the services, the physical facilities, and the budget including a statement that the portion of the library budget assigned to salaries will normally fall within the 60-79 per cent range. An appendix of standard specifications is included.

Though necessarily general in nature, this statement of objectives and standards for special libraries represents an advance which, undoubtedly, will be useful to many special library administrators in developing more adequate collections and services.

REFERENCES

RENEWED SUPPORT FOR SLA TRANSLATIONS CENTER

The National Science Foundation has granted $48,930 to Special Libraries Association for partial support of its Translations Center operation. The Clearinghouse for Federal Scientific and Technical Information (formerly Office of Technical Services), National Bureau of Standards, U. S. Department of Commerce, and the Association have also concluded a contract by which the Center will provide bibliographical information about unpublished translations to CFSTI for a one-year period in return for an amount not to exceed $27,600. These two sources of financial support will enable the Center to continue its program of collecting unpublished translations from universities, industry, research institutions, and other non-government agencies in the United States and abroad and making them available to scientific and technical personnel.

The SLA Translations Center is located at The John Crerar Library, 35 West 33rd Street, Chicago, Illinois 60616, and is under the direction of Mrs. Ildiko Nowak. The Chairman of the Translations Activities Committee is Mrs. Irma Johnson, Charles Hayden Memorial Library, MIT, Cambridge, Massachusetts. All translations received at the Center are cataloged and assigned broad subject classification headings. This information is transmitted to the Clearinghouse for Federal Scientific and Technical Information for listing in its semi-monthly publication, Technical Translations. CFSTI collects translations from domestic and foreign government sources and supplies copies to the Translations Center. This cooperative collection and dissemination operation has been in progress for the past six years, and at present almost 100,000 translations from all languages into English are available from both centers.
Brieflisting: A Method for Controlling Cataloging Arrears

RUDOLF K. ENGELBARTS, Head of Cataloging Dept.  
and  
HARVEY D. WILLIAMS, Head of Photographic Dept.  
University of California at Los Angeles

Part I—Catalog Department Procedures for Brieflisting  
RUDOLF K. ENGELBARTS

Brieflisting seems first to have been used at the University of Kansas Library as a means for making available a backlog of uncataloged library materials. News of its success impelled UCLA to adapt it to local requirements. It has now (August 1964) been in operation for almost two and one half years and has proved useful in eliminating totally unrecorded arrearages. Planned as a joint venture between the Acquisitions, Photographic, and Catalog departments, it has developed fairly quickly into a systematic but simple routine, shared by these three departments, although with different emphases.

Its objective is to place at least one record in the Public Catalog of each title so treated and to arrange the items themselves in numerical sequence on the shelves. The catalog entry is taken from the title page of the book and is, in fact, a photographic fascimile of the title page itself. In order to make filing easier, the card carries the name of the author along the top, together with a seven-digit number assigned to the book.

Only publications acquired as gifts, singly or in groups, or as items in bulk purchases, are given the brieflisting treatment. The Gifts and Exchange Section arranges them in three size groups: books of average size, books more than ten inches high, and miniature books, taking care that volumes and copies of the same title will be placed next to each other. So far we have been successful in handling books in the Roman and Cyrillic alphabets, and we have had better luck with monographs than with serials.

When a reasonably-large number of books has been arranged by size, the person in charge of brieflisting in the Catalog Department has a truckful delivered to the brieflisting desk ready for the next phase. This consists of determining the author entry which is taken, without further checking, from the title page of the book and typed on an insert (Figure 1) laid in the book following the title page. The electric typewriter has six pitch bulletin type. The insert also has a legend which instructs the user of the catalog how to go about obtaining the book.

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After all the books on the truck have been supplied with inserts, the truck is wheeled to the next station where the insert and the book are stamped with a number. This number is used for retrieving the book when it is requested for borrowing. The next steps in the process are performed by the Photographic Department, as described by Mr. Williams in the second section of this report.

After the finished brieflisting cards have been returned from the Photographic Department, they are alphabetized and given to catalogers for filing in the Public Catalog. This completes the cycle, until the book is requested by a patron. The lending procedure is handled by the Circulation Department, which makes the publication available by delayed paging and circulates the book once, whether bound or unbound. On return, it is sent to the Catalog Department, where it is given priority cataloging and classification in the standard way and is thus incorporated into the regular resources of the Library, being shelved with other books related by classification and having full sets of cards filed in the Catalog.

Most of the personnel of the Catalog Department, including all catalogers and many of the non-professional staff, take part in the brieflisting operation. Some groups of books, such as those in Latin or in a Slavic language, are turned over to catalogers familiar with these languages, but books in English can be handled without much trouble by non-professionals having some library experience. The filing of the cards sometimes presents problems; and in order to avoid inconsistencies or conflicts, it was found advisable to have it done by catalogers.

A two-week schedule listing the days and hours and the names of the brieflisters is given to all participants, so that the process may function without interruption.

The program has resulted in the disappearance of completely unrecorded backlogs. Though we still have sizeable uncataloged collections, they are now under at least a minimum of control, and the books are readily available on demand. It is still hoped that the books will eventually receive standard cataloging, but it may prove impossible to implement this intention simply because the staff will not have sufficient time to devote to such a program. In the meantime, the law of demand will operate: if a book is once called for, it will be fully cataloged and classified.

Brieflisting has been instrumental thus far in incorporating some 60,000 volumes into our available resources. At present the Library has a dearth of collections susceptible to brieflisting.

Success of brieflisting depends on availability of material and on acceptance of the conviction that it is better to have least minimal access to certain items than none at all. It must be shared by as many of the personnel as possible and must not be solely the task of the Catalog Department. A disadvantage is that it takes time away from cataloging, which is, of course, the primary responsibility of the Catalog Department. It also requires a good deal of additional filing, and it occasions, at least under the present set-up, much unexpected duplication in book copies.
At UCLA it takes about ten per cent of time away from cataloging, but its cost is only about one-tenth that of cataloging. In spite of these adverse factors, it will continue to be one way for the UCLA Library to cope with an annual intake of some 150,000 items which we think should be made available to our patrons.

We hope that eventually, by addition of personnel, by some hoped-for technological developments (at present only vaguely foreshadowed in studies and reports on automation of library procedures), by benefiting from increased cooperation and centralization throughout the country, for which plans are now so vigorously pushed by ARL, or by all of these, we may fully catalog the now brieffisted items. This may take some time.

**Part II—Photographic Techniques for Brieflisting**

**HARRY D. WILLIAMS**

The UCLA Library Photographic Department has been producing brieffisted catalog cards by photography with excellent results. Some information on methods was secured from the University of Kansas (particularly through Earl Farley*), and UCLA adapted the information to its conditions and needs.

Temporary, informative main-entry cards for thousands of volumes in storage had to be made available rapidly and comparatively inexpensively. A photographic process was decided upon to produce a card of standard catalog size. This card is a picture of the title page of the volume, with additional retrieval information appearing along the top edge of the card.

At the present time, a Recordak microfilm MRD-1 camera is used (see Figure 2) with unperforated one-hundred-foot rolls of high-contrast 35 mm. negative microfilm. For brieffisting, the film unit is positioned so that the winding crank faces the operator. The camera location is governed by convenience of access to books and by available space. Subdued light is recommended for loading and unloading the film in the camera. Closing the window shades or turning off the room lights may be sufficient. Direct sunlight or bright overhead lights should be avoided when the camera is in operation.

Each book received from the Catalog Department has a slip inserted behind the title page. The slip measures approximately 4 inches by 11 inches and contains information in a 1 1/2 inch strip on one long side, divided into three sections. The left section gives the author entry; the center section bears the instruction: “Request by this call number at loan desk uncataloged. Allow time for rush processing;” and in the right section is the accession number, which is the number for retrieval. This number determines the order for microfilming and subsequent shelving.


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Smaller slips, with the same information, may be used with smaller books. Books to be photographed are placed on a large book truck, in accession order, with the authors' names on the slips, pointing up. The truck is identified with a sign, "Ready for Microfilming," and placed to the left of the camera. A truck marked "Ready for Shelving" is placed to the right of the camera to receive the microfilmed volumes.

The operator takes a book from the loaded truck and, opening it to the title page, places it in the target area. The brieflisting form is pulled out into position along the right edge of the target area, the title page is placed along the bottom edge of the 11/2 inch strip, and the exposure is made.

The slip is then re-inserted in the book, this time with the accession number showing at the top, and the book is closed and placed on the empty truck in its accession number order. The operation is repeated with the next book.

The objective is to obtain a legible reproduction of the title page and catalog slip on a standard size catalog card. The image must be as large as

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possible on this card, and, since the volumes vary greatly in size, the amount of reduction required to get the information as large as possible on the card will vary accordingly. However, it is not practical to change the camera reduction ratio for every volume. This problem has been satisfactorily solved by using three reduction ratio settings for the camera. Large books are photographed at 21X. The maximum book size is 7 1/2 by 15 inches, plus a 1 1/2 inch tab, for a total target area of 9 by 15 inches. Still larger books are hand brieflisted. Most books are photographed at a reduction ratio of 18X. For this reduction ratio, the total target area size is 7 3/4 by 12 3/4 inches. The maximum width of books is 6 1/2 inches, without the 1 1/4 inch tab which contains the brieflisting information. The ratio for smaller books is 12X, for which the smaller slip mentioned above is used. It has been found that these three reduction ratios will satisfy the requirements of about 99 per cent of the volumes and will give legible reproductions. The book size requirements for these reduction ratios and other ratios possible with this camera are given in Table 1.

The books are placed on an 18 by 24 inch sheet of 1/4 inch thick white plastic while they are being photographed. The white plastic is easily cleaned and also diffuses the sharp shadows caused by the bright lights, thus making the final cards neater. Paper does not work well as a background since it is quickly soiled.

The target area, or the area in which the title page and slip must fit in order to be reproduced on a catalog card, is outlined on the plastic sheet. The outside borders of the target area can be scored in the plastic with a fine, sharp instrument and the scratches filled in with blue pencil lead, blue being a color which will not photograph well. If the target areas are circumscribed with dark pencil or ink, they will tend to show on the finished cards, even though they are masked out, since a slightly larger area is actually photographed than is shown by the finder masks.

<table>
<thead>
<tr>
<th>Dimensions of Target Area</th>
<th>Add Tab For</th>
<th>Total Target Area*</th>
<th>Camera R.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 1/2&quot; X 5&quot;</td>
<td>1 1/2&quot;</td>
<td>3&quot; X 5&quot;</td>
<td>7X</td>
</tr>
<tr>
<td>3 1/2&quot; X 6 3/4&quot;</td>
<td>3/4&quot;</td>
<td>4 1/2&quot; X 6 3/4&quot;</td>
<td>9.5X</td>
</tr>
<tr>
<td>4 3/4&quot; X 8 1/2&quot;</td>
<td>3/4&quot;</td>
<td>5 3/4&quot; X 8 1/2&quot;</td>
<td>12X</td>
</tr>
<tr>
<td>5&quot; X 10&quot;</td>
<td>1&quot;</td>
<td>6&quot; X 10&quot;</td>
<td>14X</td>
</tr>
<tr>
<td>5 3/4&quot; X 11 3/4&quot;</td>
<td>1 1/2&quot;</td>
<td>6 3/4&quot; X 11 3/4&quot;</td>
<td>16X</td>
</tr>
<tr>
<td>6 1/2&quot; X 12 3/4&quot;</td>
<td>1 1/2&quot;</td>
<td>7 3/4&quot; X 12 3/4&quot;</td>
<td>18X</td>
</tr>
<tr>
<td>7 1/2&quot; X 15&quot;</td>
<td>1 1/2&quot;</td>
<td>8&quot; X 15&quot;</td>
<td>21X</td>
</tr>
<tr>
<td>8 1/4&quot; X 16 1/2&quot;</td>
<td>1 1/4&quot;</td>
<td>9 1/4&quot; X 16 1/4&quot;</td>
<td>23X</td>
</tr>
<tr>
<td>9&quot; X 17 3/4&quot;</td>
<td>1 1/2&quot;</td>
<td>10 1/2&quot; X 17 3/4&quot;</td>
<td>25X</td>
</tr>
<tr>
<td>10 3/4&quot; X 21 1/2&quot;</td>
<td>2 1/2&quot;</td>
<td>12 1/2&quot; X 21 1/2&quot;</td>
<td>30X</td>
</tr>
</tbody>
</table>

*Total target area for obtaining 3 by 5 cards; actual target area as indicated by finder light is larger.

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The large area outlined is for the 21× reduction, and smaller areas for 18× and 12× reduction are permanently scribed in the plastic. If the title page (and information slip) of a volume will fit in the 12× reduction area, it is photographed at that size. If it is too large for that target area, the camera is placed at a reduction of 18× or 21×.

The camera has been focused at a point one inch above the level of the plastic sheet. This has been found to be an average height of the title pages when the books are placed in position for microfilming. The focus is not changed for pamphlets or extra-thick books since even with wide variations of thickness, the lens of the camera is capable of producing reproductions sufficiently sharp for the intended purpose.

The negative microfilm, after being developed, is enlarged seven times by Xerox Copy-flo, an enlargement ratio which will reproduce the microfilmed title page and its information slip on a standard catalog card. The cards are delivered to the Catalog Department in accession order. Examples of brieflisted cards are shown in Figures 3 and 4.

A variety of target size reduction ratio combinations can be used to attain standard size cards with the Copy-flo magnification set at 7×, as indicated in Table I. The cards are punched by the company doing the Copy-flo work and are also cut to the exact size.

For best Xerographic reproduction, the negative should have a background density of about .9 to 1.1, which is obtained with a voltage setting of about 80 for this camera. This density was determined after several test negatives were made at different voltages and checked by the Copy-flo dealer. For books with extremely dark title pages, such as those printed on dark grey, blue or green paper, a voltage setting of 85 or 90 is used. Using the voltage settings saves the time necessary to use the exposure meter. This is not considered an inconvenience, since the number of books requiring the exposure change amounts to less than one per cent of the total. It might be noted that title pages which are printed with black or dark red ink on blue or green backgrounds will come out blank on the Xeroxed cards. Such books are better brieflisted another way.

Because of the nature of the photo-brieflisting process, it is not always possible to determine whether a colored title page will reproduce satisfactorily. Furthermore, if the camera is adjusted to pick up material from a colored title page, the white insert sheet may be overexposed. To avoid the additional labor of searching and typing the listing, the following procedure is used: when a color title page is to be microfilmed, the photographer makes two exposures, one at a setting which will reproduce the information on the insert and (hopefully) on the colored page, and the second at a setting which should bring out the colored material and possibly the insert. Thus, at the cost of an additional card, the probability of one good card will be increased and reproduction of all the information on both the title page and the insert will in most cases be assured.

Experienced photographers are not necessary for brieflisting work. However, the work should be closely supervised by a member of the

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library staff who is familiar with the general processes of microfilming and Xerography. The need for such familiarity is evident when it is considered that it takes approximately 20 hours to complete the filming of a 100 foot roll of microfilm, or about 2,500 exposures. The loss in time through mishandling would be great to both the Catalog Department and the Photographic Department. The film loss would be minor compared to the labor loss. UCLA does about 100 books per hour. An operator does not stay on the camera all day, however, for fatigue will cause errors. The operator works approximately two hours, and then shifts to a different job for two hours before returning to the camera.

The cost of making the negative microfilm is approximately two cents for each title page. Adding the cost of Copy-flo, cutting, and punching

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the cards, which comes to approximately four cents, makes a total processing cost of about six cents per card.

**SUGGESTED INSTRUCTIONS FOR OPERATOR**

Two large trucks should be placed near the microfilm camera. One truck, marked “Ready for Microfilming,” is filled with books. The other truck, marked “Ready for Shelving,” is empty.

1. Take book from truck-working left to right, top to bottom, front to back—and place on microfilming table.
2. Open book to page in front of inserted slip.
3. Place insert in position, so that long edge with legend is visible at right edge.
5. Replace insert in book, with accession number showing at top.
6. Close book and place on empty truck in same order as taken.

**IN THE MAIL**

THE BRITISH MUSEUM PRINTED CATALOG

A paper by Ralph H. Parker in the Fall 1964 number of *LRTS* contains the following reference to the British Museum printed catalogue:

The most famous of printed library catalogs is that of the British Museum, the first volume appearing in 1881, which required twenty years for completion. A new edition was begun in 1931, but publication has progressed only into the letter S. Thus, entries in the last third of the alphabet have not been incorporated into the complete catalog for sixty-four years. And those at the first part of the alphabet are thirty years behind. (My italics)

This is an inaccurate account of the British Museum General Catalogue which rests on a misunderstanding of the relationship of the volumes currently appearing to the 1931 catalogue and an imperfect knowledge of the way in which the British Museum provides its readers with a catalogue.

The catalogue begun in 1931 at letter A was discontinued in 1954 with the publication of vol. 51 (DEO-DEZ). The new catalogue now publishing contains all entries up to the end of 1955, regardless of the alphabetical position of the heading. The publication was begun at letter DF, vol. 52, for convenience to subscribers. The complete cycle of the alphabet DF to Z and A to DE will be completed in 1966. A ten-year supplement of some 56 volumes, containing all accessions during the years 1956 to 1965, is planned.

In the Museum itself the only parts of the alphabet not incorporated into one sequence are, at the moment of writing [December 3, 1964], the letters M-Z and A-DE. Post-1955 accessions for these letters are available in a separate file of cards. The contents of this file are in process of gradual re-integration into the reprinted catalogue and it is expected that the file will be completely discontinued soon after the reprint now in course of publication is completed.

—R. A. Wilson, Principal Keeper, Department of Printed Books, The British Museum, London

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The Technical Services Librarian and the Profession

F. Bernice Field, Assistant Librarian
In Charge of Cataloging and Classification
Yale University Libraries

and

Joseph H. Treyz, Head, New Campuses Program
University of California, San Diego

What does membership in the American Library Association offer to technical services librarians, and what can technical services librarians contribute to ALA? To those of us who take an active part in ALA the answers to these questions seem obvious, but how can we convey our enthusiasm and interest to the many librarians in the field who have become so accustomed to having a strong professional association that they apparently take it for granted and fail to join or support it? How can we convince them that not only does ALA need their support, but also that they need ALA?

ALA and Its Members

First, what does ALA do for its members? As the foremost library organization in the world today, the one to which librarians everywhere turn for leadership and guidance, it is largely responsible for shaping the patterns of librarianship. It works unceasingly to make books and ideas a vital force in modern life, to improve and develop library services, to establish progressive policies and high standards, to create and publish authoritative professional literature, and to make the profession of librarianship recognized in the life of the nation.

All librarians profit from the accomplishments of ALA—accomplishments which are possible only because of its dedicated, hard-working members and staff who initiate and carry out the many diverse programs of the Association. Those who belong to the Association and participate in its activities gain more from it, however, than those who stand on the sidelines and wait for ALA to do something for them. Not until a librarian becomes a working member of ALA does he realize the tremendous range of activities and interests in the library world today and the opportunities that our Association offers to every member. ALA is its members—28,000 of them; it is not a body which exists, or can exist, apart from its members, but one which lives because of them and for them.

The many activities of the Association attract numerous gifts and
foundation grants, allowing ALA to spend an average of ninety dollars per member each year. This in itself is evidence that ALA is meeting the challenges and needs of the library world today.

In fulfilling its obligations to its members and to the profession, ALA follows many paths, all of which are coordinated by an alert and able Headquarters staff in Chicago. Among those of great interest to technical services librarians are the publishing program and the Library Technology Project.

The Publishing Program

Publishing has become an increasingly important part of the ALA program, and there are few practicing librarians who do not benefit from ALA publications in the daily operation of their jobs. The Publishing Department, devoted exclusively to publishing works needed by the profession, seeks to learn the needs of the profession and the best ways to satisfy them. It works through groups and individuals and strives constantly to maintain the high professional standards which have made ALA publications accepted as authoritative throughout the world.

The publications cover a wide variety of subjects in all areas of librarianship and range from theoretical studies to practical handbooks on specific library techniques. Some of those filling the needs of technical services librarians are the ALA Cataloging Rules for Author and Title Entries*, the ALA Rules for Filing Catalog Cards*, Catalog Use Study, Code for Classifiers, How to Catalog a Rare Book*, International Conference on Cataloging Principles. Report (distributed in this country by ALA), Simple Library Cataloging*, A Basic Book Collection for High Schools, Guide to Reference Books*, International Subscription Agents, Notable Books of 1963, and Photocopying from Bound Volumes. ALA publications are sold at minimum prices, made possible by the non-profit, cooperative nature of the Association’s publishing program.

Periodicals, issued both by ALA and its Divisions, reflect the thinking of the profession on its problems. The ALA Bulletin, issued monthly and sent to every member, features articles on the Association activities and on significant developments in librarianship. The Booklist and Subscription Books Bulletin, published twice a month, reviews current books to assist libraries in their selection of new material and books available only on a subscription basis. Choice, the new book selection journal issued under the sponsorship of the Association of College and Research Libraries, reviews books for the college libraries’ needs.

The Library Technology Project

The Library Technology Project, directed by Forrest F. Carhart, is officially designated as “A Program for Testing and Standardization of Library Equipment Supplies and Systems.” The Project’s primary objective is to explore ways and means of solving some of the administrative problems of libraries. A further objective is to disseminate the results of

* Revised editions are in process.

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LTP's studies and investigations as widely as possible to the library profession. Of special interest to technical services librarians have been the testing and evaluation of library adhesives, catalog card stock, manuscript marking ink, and electric erasers. A long-term project is concerned with the establishment of performance standards for library binding. LTP projects have developed a new marking system and a new type of pamphlet boxes. Improved containers for archival materials are under development, and a study of catalog card reproduction equipment will soon be published. This is only the beginning of their activities.

The Resources and Technical Services Division

To serve more adequately the interests and needs of the profession the ALA is organized into groups which have responsibility for specific phases of its activities. Chief among these are the thirteen divisions, set up according to type-of-library and type-of-activity.

The Resources and Technical Services Division is the largest of the type-of-activity groups, with a current membership of 7,000. RTSD has responsibility for the fields of acquisitions and resources, cataloging and classification, copying methods, serials, binding, and the inter-relationships of these activities. Membership in this Division, which any ALA member may join merely by indicating his interest on the membership blank when he joins ALA, gives technical services librarians the opportunity of keeping up-to-date on developments in the field and working with other librarians interested in the same problems to establish and improve the practices, procedures, policies, and tools in this field of library work.

The Resources and Technical Services Division pursues such an extensive group of activities that many people, including members, are not aware of all of them. Division-wide the most important program is the publication of Library Resources and Technical Services, the only periodical in the world devoted exclusively to the field of technical services. It has maintained a high standard of professional publishing, while actively encouraging members of the profession to contribute their ideas and experiences. To insure that each phase of technical services will have adequate coverage in the journal, the editorial board includes assistant editors for each of the four sections of the Division (Acquisitions, Cataloging and Classification, Copying Methods, Serials), who are responsible for soliciting articles and information relating to their particular fields of interest.

Among the important activities of the Division are the revision of the cataloging rules, both those for entry and those for description, under the auspices of the Cataloging and Classification Section. It is expected that work on the new code will be completed by the fall of 1965. The new code will be the culmination of the most comprehensive effort ever made to secure a body of cataloging rules which is based on principles and is sensible and workable.

Other current activities of the Division include work on bookdealer-
library relations (Acquisitions Section), library standards for microfilm (Copying Methods Section), compilation of a list of international subscription agents (Acquisitions and Serials Sections), binding standards (Binding Committee), documentation (Documentation Committee), regional processing (Regional Processing Committee), coordination of micropublishing projects (Micropublishing Subcommittee of the Resources Committee), costs of library materials (Acquisitions).

On the local level, the work and interests of the Division are maintained by regional groups, of which there are thirty. These give librarians engaged in all phases of technical services an opportunity to meet informally to exchange information and ideas and to provide a training ground for organization work in the profession. The Council of Regional Groups, of which each local group is a member, meets at each ALA annual conference to discuss problems and suggestions for programs and to learn of current activities and developments in the field. This year their discussions included such important developments as book catalogs and the Library of Congress Cards-with-Books program.

Librarians and ALA

What can librarians do for ALA? They can strengthen it by becoming members and by contributing time and effort to the furthering of ALA activities. Only with their loyal support and hard work can ALA continue to be effective as a professional organization. A doubling of the present ALA membership would give the Association the financial backing that would enable it to undertake many programs which are not possible with present resources. The creative thinking of a much larger membership applied to professional problems would have a telling effect on progress in the field.

Closer association of more librarians with their professional organization would result, not only in an expanded program of activities by ALA, but in a professional group which would be more alert to the expanding demands on libraries and ways to meet them. The problems which ALA seeks to solve are the ones which each librarian encounters in his daily job. Working on these with others who have the same interests gives members the deep satisfaction of sharing in the improvement of library service in all its aspects, of participating in the development of the policies and practices of librarianship; it gives them the inspiration that comes only from a feeling of kinship with other people who are striving toward the same ideals and attainments. Above and beyond the professional gains, one of the most enjoyable rewards of active participation in ALA is the friendships that develop from professional contacts.

The American Library Association and the Resources and Technical Services Division offer technical services librarians a place in their activities and a world beyond their job and the community in which they live.

The dues, scaled to fit individual salaries, range from $6.00 to $50.00. Write to Membership Promotion, ALA, 50 East Huron Street, Chicago,
Illinois, 60611, or contact the RTSD representative in your state if he is listed below:

Alaska—Mrs. Isabella Galbraith, University of Alaska Libraries
Arizona—Mr. Robert Poland, University of Arizona Library
Arkansas—Miss Shirley Birdsell, Harding College Library
California—Miss Roberta Stevenson, University of California, Davis, Library
   Mrs. Gladys Brown, San Mateo County Free Library
   Mr. Jack Kanbara, Humboldt State College Library
Colorado—Mr. William Lindgrin, State University Library
Connecticut—Mrs. Vera Barry, Yale University Library
Delaware—Miss Emily L. McGordy, Wilmington Institute Free Library
District of Columbia—Miss Janet Dickson, Department of Health, Education & Welfare Library
Florida—Mr. Gerard B. McCabe, University of South Florida Libraries
Georgia—Miss Marion Taylor, Emory University Library
   Mrs. J. L. Henderson, Shorter College Library
Illinois—Mr. Victor Schorman, Western Illinois University Library
   Miss Charlotte K. Post, Northern Illinois University Library
Indiana—Mr. Larry Downey, St. Clair Public Library
Louisiana—Mrs. Ruth Robbins, New Orleans Public Library
Maine—Miss Iris Almy, Portland Public Library
Maryland—Miss Dorothy L. Wallace, Prince Georges County Memorial Library
Michigan—Miss Margaret Freathy, Flint Public Library
Minnesota—Mr. Paul Berriford, University of Minnesota Library
Missouri—Miss Doris Anne Bradley, Washington University Library
Montana—Mrs. Alice Ridenour, State College Library
Nebraska—Miss Kathryn Renfro, University of Nebraska Library
   Mr. John T. Pitzer, North Platte Public Library
New Hampshire—Miss Helen Abbott, University of New Hampshire Library
   Mr. Richard Anders, Dartmouth College Library
New Jersey—Miss Gertrude Oelrich, Alanar Corporation
New Mexico—Miss Theresa Gillett, University of New Mexico Library
New York—Mr. Joseph E. Hansbery, New York Public Library
   Mrs. Betty Feld, Queensborough Public Library
North Carolina—Mrs. Elizabeth Crawford, Charlotte & Mecklenburg County Public Library
North Dakota—Miss Eva Fogderud, State Library Commission
Ohio—Mr. Robert Evans, Oberlin College Library
   Miss Doris Ransom, University of Cincinnati Library
Oklahoma—Mr. Martin P. McDonough, U. S. Artillery and Missile School Library
Pennsylvania—Miss Frances Hinton, Philadelphia Free Library
Rhode Island—Miss Nadine Baer, University of Rhode Island Library
South Carolina—Miss Jessie Ham, University of South Carolina Library
   Miss Susie McKeown, Winthrop College Library
Tennessee—Miss Ruth Ringo, University of Tennessee Library
Texas—Mr. C. R. Couch, Jr., Arlington State College Library
Utah—Miss Marion Ohr, University of Utah Library
Virginia—Mr. Roger Bristol, University of Virginia Library
Washington—Mr. Leon Whiting, Eastern Washington State College Library
West Virginia—Miss Jane Brugger, Marshall University Library
Wisconsin—Miss Mary Tesovnik, Milwaukee Public Library
Canada—Ontario—Miss Phyllis Vair, Hamilton Public Library
A Book Catalog for Libraries—Prepared by Camera and Computer

Robert C. Jones
Director of Instructional Resources
The Junior College District
St. Louis, Missouri

Much has been said, written, and is now finally being done about book catalogs for libraries to replace the conventional card file. A series of articles in the Fall 1964 issue of LRTS covers the various methods of producing book catalogs, the experiences of some of the many libraries which are now using them, and makes some predictions for future catalog developments.

The St. Louis Junior College District started its libraries with book catalogs produced by photographic process, which accurately presented the Library of Congress cards in page and book form, but presented the problem of having to re-photograph all of the cards for all of the books to do a total cumulation of the catalog. At that time, IBM catalogs were printed out in teletype, requiring much key punching and checking, some hand filing, and either purchase or rental of expensive equipment. But, from the beginning, it seemed there must be some method of combining the accuracy of the camera with the speed of the computer; this system has now been developed, and was used in producing the first total cumulation of the catalogs now in use in the Junior College District libraries.

Using the mental and mechanical resources of Alanar Book Processing Center, Williamsport, Pennsylvania, the catalogs were produced on a service basis, requiring no additional staff or equipment of the Junior College District; when more advanced computer equipment is acquired, there are possibilities of the Junior College District putting its book orders on tape, connecting its computer with the Alanar’s by Data-Phone to place the order, then have the Alanar computer call back with full billing, cataloging, and book catalog information. With the new equipment, upper and lower case letters can be used, and the subject headings printed in bold type for quicker spotting. In the meantime, a somewhat simpler system is used; cumulative supplements will be issued depending upon the rate of acquisition of materials. As books are received, cataloging is checked, and a card sent to Alanar for punching; thus a run-off is available on call.

To produce the catalog, Alanar was sent one card per book, comprising the Junior College District library holdings; the complete card was

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photographed by Itek camera in sheet form, each page being numbered and bearing a lettered space designation for each card. From this book of LC cards, which is called a Card Catalog, the cards are key-punched for magnetic tape, the information including author, title, and subjects, edition if necessary, copyright date, the classification number, and the code number—the latter referring back to the Card Catalog, where the full LC card information is contained. Thus a code such as 7oR would refer to page 70, space R. These cards also show specific locations of books which are in special collections or on one campus only.

From the tape, using a 1401 computer, a print-out by author, by title, and by subject was made, which was then re-photographed and reduced for clarity and easier reading and to eliminate the teletype look. The resulting pages were then hard-bound into separate volumes. A patron can by either author, title, or subject locate the classification number of a book and obtain it from the shelves; but if there is need to consult the full LC card, he can use the code number to locate that entry in the Card Catalog volume. The author, title, and subject indexes give all of the information that is normally needed in library usage, and each page contains 82 entries for easy scanning and quicker use. The second line of each entry is indented for more familiar reading.

Each library now has 15 sets (3 volumes each) of the catalogs for use at tables, at the librarians’ desks, in faculty offices, or wherever needed. But once the tape is made, as many copies as are needed can be produced quickly and economically, if, for example, the catalogs were to be put on sale in the book store, or used for wider than District distribution. Each index also contains a list of materials at the Central Instructional Resource Center, a list of materials in each library which are not cataloged, and the periodicals and newspapers in each library. (Since slides, tapes, records, microfilm, AV equipment, and programmed items are being acquired very rapidly, the librarians are keeping these listings up to date.)

These indexes are as easy to use as a telephone directory, and since more and more college, city, county, and special libraries are turning to some form of the printed book catalog, they are most likely what students will be using in the future in other colleges, on the job, or in the community.
West German Book Prices

The accompanying tables are computed on two bases. The old base of 1954 = 100 which was chosen for reasons inherent in the economy of the country (see LRTS, Winter, 1963), and the new base years 1957/59 = 100. Since the U. S. Consumer Price Index assumed the new 1957/59 base years, U. S. Book, U. S. Periodical, and U. S. Serial Service Price Indexes have been converted to this base also. In following suit, the trend of West German book prices will be more nearly comparable than before.—Marietta Chicorel, Chairman, “Cost of Library Materials Index” Committee, Acquisitions Section, ALA-RTSD.

COST OF LIVING AND BOOK PRICE INDEXES FOR WEST GERMANY

Summary Table
(1954 Average = 100)

<table>
<thead>
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<th>Year</th>
<th>Book Price Index</th>
<th>Cost of Living Index*</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>1955</td>
<td>118.1</td>
<td>116.2</td>
</tr>
<tr>
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<td>160.4</td>
</tr>
<tr>
<td>1960</td>
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<td>1961</td>
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<td>141.6</td>
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<td>1962</td>
<td>159.9</td>
<td>165.4</td>
</tr>
<tr>
<td>1963</td>
<td>163.2</td>
<td>169.5</td>
</tr>
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</table>

Summary Table
(1957/59 Average = 100)

<table>
<thead>
<tr>
<th>Year</th>
<th>Book Price Index</th>
<th>Cost of Living Index*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957/59</td>
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</tr>
<tr>
<td>1963</td>
<td>113.9</td>
<td>115.0</td>
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</table>


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## INDEX OF WEST GERMAN BOOK PRICES BY SELECTED CATEGORIES, 1957/59-1963

(1957/59 Average = 100)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Index</td>
<td>Average</td>
<td>Index</td>
<td>Average</td>
<td>Index</td>
<td>Average</td>
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<td>Average</td>
<td>Index</td>
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<tr>
<td></td>
<td>Price</td>
<td></td>
<td>Price</td>
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<tr>
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<td>DM</td>
<td>$</td>
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<td>$</td>
<td>DM</td>
<td>$</td>
<td>DM</td>
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<tr>
<td>Total</td>
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<td>2.93</td>
<td>13.13</td>
<td>3.15</td>
<td>10.77</td>
<td>2.15</td>
<td>11.93</td>
<td>2.98</td>
<td>10.12</td>
<td>2.15</td>
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<td>Art</td>
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<td>21.21</td>
<td>5.00</td>
<td>18.75</td>
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<td>22.73</td>
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<td>Juveniles</td>
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<td>4.85</td>
<td>1.16</td>
<td>5.42</td>
<td>1.36</td>
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<td>1.45</td>
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<td>139.4</td>
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<tr>
<td>Economics</td>
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<td>2.80</td>
<td>12.98</td>
<td>3.11</td>
<td>10.27</td>
<td>2.35</td>
<td>11.14</td>
<td>2.65</td>
<td>119.8</td>
<td>226.0</td>
</tr>
<tr>
<td>History</td>
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<td>3.33</td>
<td>16.14</td>
<td>3.80</td>
<td>17.65</td>
<td>4.09</td>
<td>16.82</td>
<td>3.57</td>
<td>122.9</td>
<td>134.2</td>
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<td>14.15</td>
<td>3.40</td>
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<td>3.84</td>
<td>13.86</td>
<td>3.67</td>
<td>136.8</td>
<td>148.3</td>
</tr>
<tr>
<td>Literature</td>
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<td>1.53</td>
<td>6.49</td>
<td>1.75</td>
<td>8.72</td>
<td>2.03</td>
<td>8.67</td>
<td>2.08</td>
<td>95.6</td>
<td>109.6</td>
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<tr>
<td>Medicine</td>
<td>32.02</td>
<td>7.63</td>
<td>37.84</td>
<td>9.07</td>
<td>34.36</td>
<td>8.79</td>
<td>37.68</td>
<td>9.42</td>
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<td>123.4</td>
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<td>Religion</td>
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<td>8.06</td>
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<td>2.14</td>
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<td>135.4</td>
</tr>
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<td>Science</td>
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<td>28.46</td>
<td>6.82</td>
<td>27.74</td>
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<td>7.19</td>
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<td>148.9</td>
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<tr>
<td>Technology</td>
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<td>2.96</td>
<td>13.83</td>
<td>3.31</td>
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<td>3.56</td>
<td>15.69</td>
<td>4.02</td>
<td>129.4</td>
<td>135.8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>15.10</td>
<td>3.59</td>
<td>14.82</td>
<td>3.55</td>
<td>98.1</td>
<td>98.8</td>
<td>17.74</td>
<td>4.44</td>
<td>155.8</td>
<td>164.0</td>
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</table>

Sources: Buch und Buchhandel in Zahlen. 
Federal Reserve Bulletin for conversion values.
## WEST GERMAN BOOK PRICES BY SELECTED CATEGORIES 1961-1963

(1954 Average = 100)

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Number of Books</th>
<th>Total Index</th>
<th>Average Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1961</td>
<td>1962</td>
<td>1963</td>
</tr>
<tr>
<td>Art</td>
<td>688</td>
<td>146.0</td>
<td>141.9</td>
</tr>
<tr>
<td>Juveniles</td>
<td>1,109</td>
<td>175.4</td>
<td>183.8</td>
</tr>
<tr>
<td>Economics</td>
<td>1,232</td>
<td>149.3</td>
<td>162.9</td>
</tr>
<tr>
<td>History</td>
<td>1,245</td>
<td>155.0</td>
<td>162.3</td>
</tr>
<tr>
<td>Law</td>
<td>1,338</td>
<td>152.2</td>
<td>160.0</td>
</tr>
<tr>
<td>Literature</td>
<td>5,296</td>
<td>100.5</td>
<td>105.1</td>
</tr>
<tr>
<td>Medicine</td>
<td>528</td>
<td>151.5</td>
<td>159.0</td>
</tr>
<tr>
<td>Religion</td>
<td>1,481</td>
<td>141.2</td>
<td>149.0</td>
</tr>
<tr>
<td>Science</td>
<td>904</td>
<td>165.1</td>
<td>173.2</td>
</tr>
<tr>
<td>Technology</td>
<td>1,090</td>
<td>135.0</td>
<td>141.3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>158</td>
<td>132.5</td>
<td>139.2</td>
</tr>
</tbody>
</table>

**Notes:**
1. For earlier years see previous issues of LRTS.
2. For average price consult the 1957/59 base years Table.

## NOMINEES, COPYING METHODS

Through an error, the Winter issue of LRTS listed Albert Diaz and Jon Ashton as candidates for the office of Secretary of the Copying Methods Section, RTSD. These gentlemen are candidates for member-at-large of the Section's Executive Committee. Dorothy Comins is Secretary of the Section.
COLLEGE AND RESEARCH LIBRARIES have long admired the close classification of the Library of Congress. This is achieved by the use of no more than six letters and figures in most cases, in contrast to the almost ridiculous expansions in DC. Many libraries have gone through the expensive process of completely reclassifying from DC to LC when only certain areas of DC were inadequate to their needs, because of the incompatibility of the mixed notation of LC with the pure number notation of DC. Libraries considering reclassification might be interested in an experiment conducted by Indiana State College. For over four years we have successfully effected a partial reclassification by adapting the LC national literature schedules to DC notation.

Conversion from mixed to pure notation is accomplished by substituting second summary DC figures for the LC class letters. As shown by the following table, dislocations in the stacks were held to a minimum.

<table>
<thead>
<tr>
<th>DC grouping</th>
<th>DC</th>
<th>LC</th>
<th>LC grouping</th>
</tr>
</thead>
<tbody>
<tr>
<td>American literature in English</td>
<td>81</td>
<td>PS</td>
<td>American</td>
</tr>
<tr>
<td>English and Old English</td>
<td>82</td>
<td>PR</td>
<td>English</td>
</tr>
<tr>
<td>Germanic literatures</td>
<td>83</td>
<td>PT</td>
<td>Teutonic</td>
</tr>
<tr>
<td>French, Provençal, Catalan</td>
<td>84</td>
<td>PQ</td>
<td>Romance</td>
</tr>
<tr>
<td>Italian, Rumanian</td>
<td>85</td>
<td>PA</td>
<td>Classical</td>
</tr>
<tr>
<td>Spanish, Portuguese</td>
<td>86</td>
<td>PG</td>
<td>Slavic</td>
</tr>
<tr>
<td>Latin &amp; other Italic literatures</td>
<td>87</td>
<td>PJ</td>
<td>Oriental</td>
</tr>
<tr>
<td>Classical &amp; modern Greek</td>
<td>88</td>
<td>PK</td>
<td>Indo-Iranian</td>
</tr>
<tr>
<td>Other literatures</td>
<td>89</td>
<td>PL</td>
<td>Eastern Asia, Africa, Oceania</td>
</tr>
</tbody>
</table>

Conversion from numerical to decimal notation is accomplished by inserting zeros between the letters and figures of the LC classes in order to provide a base of six elements. After the substitution in the table above (step 1), a decimal is placed after the third figure, and terminal zeros are dropped (step 2).

<table>
<thead>
<tr>
<th>LC number</th>
<th>step 1</th>
<th>step 2</th>
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<tbody>
<tr>
<td>PR8</td>
<td>820008</td>
<td>820.008</td>
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<td>841.11</td>
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</tbody>
</table>

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Library Resources & Technical Services
Until complete conversion is made, we have some incongruous mixtures of subject matter on the shelves. However, most patrons have accepted the situation when we explain that we are changing to a better scheme.

The melding of LC and DC requires certain precautions and exigencies:

1. A number assigned by LC cannot be accepted at face value. Our rule is: if a work classes in 810-899 by Dewey, then it may be converted to adapted LC. For example, language remains in the 400's. As exception, biographies are classed in 810-899 rather than in the 928's.

2. DC was retained for 800-899 because the cognate PN schedule covers too many areas not classed in the 800's by DC. The class 800.9 was added for biographies of international scope. Certain PN numbers must be added to 810-899; e.g., PS690 (810.69) is used for wit and humor instead of PN6157-6161, as is indicated in the PS schedules by the use of curves.

3. Works classed by LC in PZ1.4 (fiction in English) must be assigned in 810-899 by nationality. This is not considered a great burden, since such determination was being made long before the present experiment was started.

4. Since there are too many LC literature groupings to fit into our first table, literatures not covered are inserted, as the need arises, in unassigned blocks of ten numbers of the 890's, using an adaptation of tables E-F in the PR schedule. For example, if 899.9-899.909 is assigned to Eskimo literature, a collection of Eskimo poems would be classed 899.906.

We have generally accepted the book numbers of the LC schedules, but have adapted and simplified certain aspects, such as the tables. Also, we have applied our own Cutter numbers to 20th century American and English authors. The following examples show numbers taken from LC cards on the left, compared with our local numbers on the right. Below each example, in curves, is the equivalent DC class number.

**PT1171.B47**  Bithell, Jethro, 1878- comp.  831.171
An anthology of German poetry,  B624
1730-1830.
(831.7082)

**PS3515.E37Z62**  Hemingway, Leicester, 1915-
My brother, Ernest Hemingway.  813.515
(928.1)

**PR2820.A2B6**  Shakespeare, William, 1564-1616.
King Richard the Second, edited by E. C. Black.
A2B5
(822.33)

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Because of the greater number of classes within the LC classification, it would not be practicable to attempt complete conversion to DC notation. For us, the particular value of LC over DC was its shelving together of all the literary works by, and works about, an individual author, instead of by literary form. We find the other classes of DC quite adequate for our needs. However, it is anticipated that conversions similar to the one we are doing in 810-899 are possible in other limited areas.

IN THE MAIL

The “Statement on Types of Classification Available to New Academic Libraries,” a report of the Classification Committee of the Cataloging and Classification Section appearing in Library Resources and Technical Services, 9:104-111, Winter 1965, contains one statement so misleading that I cannot refrain from asking you to publish a correction.

In question 6, under “B. Dewey Classification characteristics,” appears the following statement:

(1) DC numbers appear on LC cards for about 35% of titles. This means that about 65% of cards purchased from LC have no DC number.

While the first sentence of this statement is substantially correct, the second sentence does not follow from the first, and is contrary to fact. One statement refers to titles, the other to cards.

The situation is that, while DC numbers have, in recent years, appeared on LC cards for about 35% of the titles for which cards have been printed, this includes titles in all languages. Analysis of Card Division sales made during the last eight years or more indicate that over 93% of cards sold are for English language titles. Frequent spot analyses confirm this figure as approximately correct. We have analyzed in recent weeks sales of cards shipped to 136 libraries. For purposes of sampling, two separate combinations of small orders were chosen at random on two separate days. The results were as follows: in the first combination were 772 slips comprising orders from 100 libraries. Of these slips, 624 (80.8%) were for cards containing DC numbers. In the second there were 437 slips, comprising orders from 24 libraries. Of these slips 350 (80.1%) were for cards having DC numbers. The percentages of individual orders from different types of library subscribers in these two combinations were as follows: (1) college and university 50%; (2) public 20%; (3) high school 15%; and (4) special 15%.

In addition, separate orders from Columbia University, Long Island University, University of Nebraska, Princeton University, University of Rochester, and Tennessee Polytechnic College were analyzed. Out of a total of 627 orders filled, 72% or 450 had Dewey numbers and 28% or 177 did not. Likewise, individual orders from the following public libraries were analyzed: Boston, La Puente, Moline, Brookline, Tucson, and Little Rock. Out of a total of 967 individual orders, 80% or 750 had Dewey numbers and 20% or 217 did not.

We grant that it would be desirable if DC numbers could appear on even more than 80% of the LC cards that are sold, and, as reported in the Library of Congress Information Bulletin, 24:73, February 8, 1965, discussions are now being held on this very subject. I think we can safely (and happily) say that the statement under question 8 of the report (“It is said that fewer DC numbers will appear on LC cards in the future”) can now be superseded by a more optimistic expectation.—Benjamin A. Custer, Editor, Dewey Decimal Classification, The Library of Congress

Library Resources & Technical Services
Manuscript Collections and Archives—
A Unitary Approach*

RICHARD C. BERNER
Curator of Manuscripts
University of Washington Libraries, Seattle

ALTHOUGH ARCHIVES and manuscript collections have many of
the same bibliographic characteristics, they are often treated as separate and distinct entities. The main result of this tendency to apply different techniques to the two categories of material is the recently-begun National Union Catalog of Manuscript Collections (NUCMC). The techniques used for compiling the NUCMC are those used by most libraries in dealing with manuscript collections, and these techniques are derived from the method of cataloging books and other published material.1

In the following discussion a unitary approach will be taken, based on the premise that the bibliographic characteristics of archives and manuscript collections are fundamentally the same; furthermore that these characteristics are essentially different from those of published items. The main purpose of this paper is to provide a broad theoretical framework within which a librarian might operate in arranging and describing a manuscript collection. Usage and context will be relied upon to convey the appropriate meanings of the terms used.

The “Record Group” among archives is equivalent to the “Manuscript Group” in a manuscript collection. The integrity of each is maintained in conformity with the rule of provenance. The essence of this rule is that records normally are created in relation to specific functions, work, or goals and as a consequence reflect that activity; therefore they should be kept together. They should not be merged with records created by another person or organization even though the different sets of records are concerned with the same subject. Subject indexes are best for leading the users to different record or manuscript groups for material about the same subject; subject affinity should not serve as a basis for grouping records. By maintaining the integrity of the records according to the source that generated them, the user will be able to analyze the actual work of the person or organization in the truest context, that in which the work transpired.

* Based on a lecture given at a Symposium on Archival Administration, held at the Federal Records Center in Seattle, May 23, 1964, co-sponsored by the University of Washington School of Librarianship, the Society of American Archivists, and the National Archives and Records Service.


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Both record and manuscript groups are composed of series, and series are composed of file folder units, and they, in turn, of items. Arrangement and description can be keyed to any of these record levels depending on the kind of detail desired. The problem faced upon accessioning an addition to the archival or manuscript collection is to consider the original order and whether or not it should be retained. As a general rule, in a formal archival situation the original order will be satisfactory; it is less often satisfactory in the case of a fresh addition to a manuscript collection because manuscript groups are normally not the product of a records management program whereas archives usually are related to such a program. In either case, if rearrangement is necessary, it should be done for the purpose of reflecting the activity of the person or organization; the end result may well reflect the actions as they actually took place, and the rearrangement should be made with this in mind. Sometimes rearrangement is modest, sometimes total.

Let us now consider cases in which rearrangement is necessary (cases of both disordered and orderly files will be selected for illustration) considering:

I. personal papers;
II. corporate papers received as part of the manuscript collection;
III. files of an organization which are destined for its own archives in the absence of a records management program.

I. Personal Papers

Personal papers may be received in a variety of arrangements, but let us assume that the papers are in disarray or that the original order is bibliographically unmanageable. We have an option then to rearrange them optimally. It is possible to do this by placing them in:

1. chronological order by series (e.g. correspondence, minutes of meetings, business records, etc.);
2. chronological order without distinction as to series characteristics;
3. chronological-alphabetical order by series;
4. subject arrangement, in which case the subject is a subgroup of that person's papers, and the subgroup is then arranged in series;
5. a combination of these.

The method chosen will depend on a number of factors, the most important being the size of the collection, the types of series represented, and the record level at which arrangement and description are to be made.

A small collection of perhaps 100 or 200 family letters (correspondence among members of a family) might best be arranged chronologically, an index to names of individual correspondents of each letter could be made, and this information could be cumulated in a union catalog or cumulative index. The amount of detail recorded would depend on the importance of the collection and the work load of the repository. (This principle will apply in all cases discussed.) It would be...
relatively easy to establish bibliographical control at the item level for a small collection of this nature.

A more complex collection of personal papers in which several series are represented and in which several organizational affiliations of the person occur will raise problems of a different order.

A subgroup for each affiliation should be established first; then series for each subgroup. To illustrate: Lillian Spear was Executive Secretary in a number of organizations and kept their files, which she in turn gave to the manuscript collection as parts of her personal papers, but all the papers were mixed. The first step in organizing her files was to establish subgroups by name of organization, then filing items, within each subgroup, into series; e.g., correspondence, minutes, financial records, campaign literature, etc. In doing this we tried to reflect the course of the work of each organization in the Spear files.

All of the items could have been filed in one chronological sequence; all could have been filed chronologically by subgroup; all could have been filed chronologically in each series of each subgroup; or items could have been filed in a chronological-alphabetical method for correspondence and a chronological arrangement for other series. The latter choice was made, and a description of it follows.

Correspondence is normally the most revealing part of any collection in that it will show motivation and conflict more clearly, in brief, the factors that partake of or culminate in policy decisions, action and events; those elements for which the historian and social scientist are looking, elements of stability and change. Usually the researcher is looking for names of people and organizations connected with his subject, that is, the human basis of stability and change. An archivist administering records of public agencies will find it less necessary to reveal names than would the administrator of a manuscript collection. The reason is that names and subjects, in large part, are known to the researcher and he would normally possess those elemental biographical facts that would lead him to know if “his people” were members of a public agency or other corporate body whose files are in the archives. In a public archive or corporate archive names and subjects are, in a sense, “given”. In a manuscript collection, where private papers (personal and organizational) are housed, names are less obvious and must be revealed more deliberately. For example, if correspondence is filed in one chronological sequence, the processor must either be completely objective and list the name of each author of each letter and its date if it is to be readily and quickly retrieved; or he must follow the practice of most repositories and make a selective listing of “key” letters and names of “important” correspondents. This latter method is highly subjective, to say the least.

To be objective and yet provide more than one approach to the manuscript collection as a whole (as well as to this one manuscript group) some repositories do the following, when rearrangement is necessary: incoming correspondence (enclosures normally are kept with the covering letter) is filed separately from outgoing. The incoming letter is
then filed alphabetically by author, and the outgoing is filed chronologically. Thus a two way approach to the files is provided; chronological and alphabetical. The chronological arrangement of the outgoing letters (and inter-office correspondence) will satisfy a biographer of the person or organization whose files are before him, and it will meet the needs of a researcher who is led to this person's or organization's files for a specific date or dates. It will also satisfy the needs of someone who wants to see all of the letters in the entire collection or archive that are written by a particular party or emanate from a particular office. In doing this the subjective element in selecting names for representing in a cumulative index or card catalog is reduced to a minimum, for all of the letters written by a particular party are in discrete file units in one or more discrete groups of manuscripts and can be revealed by a cumulative index or union catalog.*

This separation of incoming from outgoing letters is done usually for collections of medium or large size; controls for small collections, (less than 500 letters, say) can more easily be established without much rearrangement. Only the names of incoming correspondents need be noted in the cumulative index or union catalog since they represent fairly well names of addressees in the series of outgoing letters. They will also key the user to the manuscript group for a look at its inventory and the group's content if the inventory substantiates his belief that he will find pertinent data there. This method can be used for each group, because the purpose of the index is merely to lead the researcher to the manuscript or record groups likely to yield the desired information. The researcher will fan out from individual leads, and often the progression from a single lead will be of a geometric order.

By applying this method of arrangement to the papers of Lillian Spear it was possible to establish control at the file-folder level, and the description was keyed to that level. Because it was necessary to handle physically each item in her group of manuscripts and place it in the appropriate subgroup and then into series within each subgroup, it was almost automatic that arrangement and description be keyed to the level of the file-folder unit. Bibliographical control at the item level (the most precise) was deemed unnecessary. If it had been desirable, the problem that remained was one of description only, not arrangement.

The personal papers of Hugh B. Mitchell were a simpler problem, because very little rearrangement was necessary. As a Congressman and Senator he kept his files according to standardized practices, a subject and name file in a single alphabetical series with informative and accurate file folder designations. Only one subgrouping was required, that for the Columbia Valley Authority—a bill which he had sponsored in Congress and for which he lobbied privately as President of the League for a CVA, 1946-48. This was easily identified as a separate unit in the original order, and in the course of inventorying the contents of the col-

lection the little CVA material misfiled was easily identified and placed with the CVA subgroup.

Because the Mitchell papers will be used quite heavily, it was decided to establish control at the file-folder level so that specific items or files could be requested and retrieved quickly. Control at the series level could have been established by simply describing the original order and identifying the series elements by copying his file folder designations, because they were informative as well as accurate. The decision on control level was based on the anticipation of a heavy demand and the weighing of this against the importance of other groups of manuscripts requiring processing. It was decided that the greater expense of establishing control at the file-folder level instead of the series level would be outweighed by the cheapness of administration in the long run. Item control, we decided, was not warranted.

In establishing file-folder control the folder heading was noted and a brief description given of the folder's content, including dates and names of significant correspondents. Uniform entries were established for names of corporate bodies for entering in one place in the name index to the Mitchell papers, but practically no physical rearrangement was done. Uniform corporate names were established by following (with minor exceptions) the ALA Cataloging Rules for Author and Title Entries. The names listed in the index to the Mitchell papers were then added to those in the cumulative name index.

II. Corporate Papers Received as Part of a Manuscript Collection

These are received either on a regular archival deposit (permanent) basis in cases of currently-operating bodies, or as the archive of a defunct operation. Examples of the first are the files of the Northwest Public Power Association; of the second, the files of the Oregon Improvement Co. (1880-96) and its purchaser, The Pacific Coast Co.

The problem in each case was essentially the same: first, to determine what was the original order, then whether or not it was satisfactory for bibliographic control. The type of control which would be established would be based on demand, actual or anticipated. If the original order were to be disturbed, it had to be decided how it should be done to insure the activity of these bodies being faithfully reflected. These, of course, are the primary considerations in the approach to any new accession. Let us take the case of each, in turn.

Northwest Public Power Association. This is an operating organization which has made the University of Washington Library its official archive, to receive its non-current records on a permanent basis. It performs legislative service for member organizations and conducts technical training programs, makes statistical studies, and in general carries out work assigned to it by its governing board. The natural subdivisions of its operations are in specific subject areas; it does not operate other organizations (unlike a business firm that might own and operate other firms, and unlike an administrative body with functional subdivisions).
Its files are kept according to its subject specializations and it is able to close its files upon a subject when its work is completed; as, for instance, the Hells Canyon controversy and the Columbia River Review Report. It has, however, mixed the correspondence with the Federal Power Commission, Senate and Corps of Engineers hearings, clippings, minutes, reports, speeches, etc., all within the same file folder units. To reflect its work accurately, the subject arrangements were retained and treated as subgroups. The real problem, though, was whether to retain the original order. This, too, could have been done and the arrangement simply described in terms of the designations already on the file units in the subject subgroup. However, it was decided that more accurate control could be established with little more effort. Furthermore, demand for these files also is expected to be heavy. Therefore it was decided to rearrange the files by forming series for each type of material in the subgroup: correspondence (outgoing and incoming), minutes of the General Advisory Committee, hearings, etc. The residue forms a clippings series. (Another consideration was the need to separate clippings, because of their high acidity, from the other materials.)

Oregon Improvement Company 1880-96

The files of this firm were in total disarray, unlike the files of the Pacific Coast Company, the firm that bought the OIC in 1896 during a corporate reorganization (see below). The OIC papers had to be rearranged from beginning to end, whereas the PCC files needed only to be placed in clean folders, grouped according to original file identifications, and described.

From the letterheads, minute books, and articles of incorporation it was learned that the OIC owned and operated a number of subsidiary companies in railroading, coal mining, and shipping. The first step was to group the papers according to parent company, then subsidiary companies, and then establish series for the parent and each subgroup according to the standard method used for total rearrangement, described in relation to the Lillian Spear papers.

Pacific Coast Company, 1896-1915

The original order of these archives was easily learned, and they were arranged accordingly. Subgroups were established for each of the subsidiary companies. The original order was by subject groupings; e.g. coal business, letter books of president and secretary, rentals, land sales, construction, etc., each forming a series. It was decided that control at the series level would give quick access to the files for retrieval. It was decided, in terms of anticipated demand and work load, that it would be too expensive to handle each item physically. To avoid this and yet get control for quick access, each file folder was numbered serially.

This method, by the way, can be used for groups of manuscripts whether they are arranged or not. If quick control for ready retrieval is needed, the method of serially numbering file folders will serve the pur-
pose. One need not know the contents of each file folder to do this, so the method can be applied to groups that are relatively less important.

III. Files of an Organization Destined for its own Archive in the Absence of a Records Management Program

The first step should be to learn what can be known about the history of the organization. Its tables of organization and the functions of each unit, now and in the past, should be learned. In the absence of written records providing this information, personal interviews with veterans in the organization can serve as a partial substitute.

Once this skeletal information is known, the files can be confronted, taking the following steps:

1. Order them first by subgroup when appropriate. (The quantity of the files and the functional place of the unit in the organizational structure are important facts to consider in subgrouping.)
2. Learn the original order of the files and try to find file guides and indexes that were kept. In their absence try to construct indexes that are keyed to the original order.
3. Establish the names of key people in the organization and put tracers on them by means of a cumulative name index and cross references. Do the same for names of correspondents.

Subjects will tend to be defined by the function of the organizational unit whose files are in the archive; therefore a subject index probably would not be necessary except for the occurrence of atypical subjects. Atypical subjects might be subgrouped.

Summary Remarks about Description

The kind of arrangement made for each group will determine the kind of description which can be made. That is, the amount of detail to be incorporated into the description will be based upon how much detailed knowledge there is of the filing units in the record group. This in turn will be directly influenced by the decision as to how much information is needed, and this will depend upon factors such as anticipated demand, internal priorities, and the like.

In any case, the description should be in the form of an inventory. The inventory becomes the direct finding aid for materials in that record group. However, those who service the collection or the archives as a whole must be led to these separate finding aids or inventories. This can be done through cumulative name, subject, chronologocial indexes, either in card form or page form. The barest information only need be noted in these indexes, sufficient to lead the user to each of the record group inventories for data by or about a particular person, corporate body, subject or time that interests him. From that point on the researcher will tend to fan out within the manuscript collection as a whole following leads provided by the indexes and by clues that normally appear in the course of research.

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General Summary

When facing a fresh accession to an archive or manuscript collection, the following basic steps should be taken, the degree of detail with which each step is carried out depending on the individual case.

1. Learn the salient biographical or historical facts about the person or organization so that the records can be interpreted in their true context.

2. Depending on the individual case and internal priorities, decide upon the appropriate arrangement of the files. The decision to be made will turn upon the degree of control desired, whether it be at record group and subgroup level, the series level, file-folder level, or item level.

3. The decision about arrangement will determine the kind of description which is to be made, whether it be gross as at the record group and subgroup level or exact as at the item level. The description should be in the form of an inventory.

4. Ideally, each inventory should be indexed for names of persons, corporate bodies, and subjects. The names and subjects indexed should then be transferred to cumulative subject and name indexes which exist for the collection or archive as a whole. In addition, a chronological index can be kept to show what groups of records exist for a particular time.

BIBLIOGRAPHY


U. S. National Archives. Staff Information Papers.


Correction: Serials Prices

In the Gallatly article on "Variant Pricing of Serial Publications" (LRTS, 9:119) the last paragraph, last sentence, should read: The "A" rates, which are considerably higher than this "B," apply to libraries.

The Editor and the Author regret the inconsistency this error created.

Library Resources & Technical Services
IN THE FALL 1963 issue of Library Resources and Technical Services, appeared Paul Dunkin's lively article bearing the intriguing title, "Happiness is a Long Footnote," in which he attempts to disprove the theme of his title. (This is done on purpose to confound the KWIC indexers.) The present commentary is a corollary to his title, but not necessarily to his article.

Scientific writers have followed some of Professor Dunkin's suggestions for at least half a century, so there is a ready-made body of evidence available for examination. In scientific writing, one functions on the principle that footnotes should be as short as it is humanly possible to make them. The result is that scientific literature is full of the most fascinating secret code for footnotes, particularly when reference is made to journal or report literature.

Scientists employ initialisms as much as possible. Everyone is familiar with good old JOSA, PR, NOHC, AIEEE, CA, PNAS, GSA, AFIPS and AAPG. They omit not only months from their citations, but series, sections, parts, numbers, volumes—in fact, everything but pages in some instances. Where issues of a journal are not paged continuously in a volume (some are still issued this way), this secret code is almost unbreakable.

Books by corporate authors or conferences, seminars and congresses are not permitted to discourage anyone, even if several pages have to be perused to find a personal name to use as author. Subdivisions of corporate authors are almost always omitted, ensuring that there shall be several separate publications which can be identified by a single footnote. This is pure genius in economy. If the author is a person, his name is usually cited, but, in keeping with the spirit of the code, it is often spelled incorrectly, especially if he is East European or Russian. Abbreviations make for a field day. They are obvious, of course, but to whom? Place and publisher vanish all right, especially with governmental report literature where nothing is given but some hieroglyphics and a number. What fun for the Inter-Library Loan librarian! Standard rules for punctuation, transliteration, spelling, and capitalization are avoided like the plague. Everything is published on the assumption that there can never be a typographical error in a footnote, so no bits of information that could be used as check points mar the beauty of the brevity. Are the footnotes usable? Ask a citation indexer.*

Currently I have at hand 705 abbreviated journal title citations collected from the Physical Review by M. M. Kessler, Massachusetts Institute of Technology, and obtained through the courtesy of Pauline Atherton, American Institute of Physics. These include such ingeniously well-coded titles as:

J SCI USSR
L'ASTROPHYSIK
PHYSICA DEIL
AM CHEM PHYS
ANN MATH MONTHLY
PHYS BULL
J PHYS MATH
PROC COP
WISS BER UNIV MOSH

They are so well disguised that they cannot be recognized in the usual sources, such as the Union List of Serials, New Serial Titles, or the National Union Catalog, or even in any unusual sources.

More complete citations may also be suspect (spelling as given):
ACAD. POLONAISE SCI. ET LETTRES BULL. (refers to 9 separate journals)
AMSTERDAM ROY ACAD SCI (and 13 variations in form of abbreviation. Refers to 9 separate journals)
IZVEST BULGAR ACAD NAUK (23 separate journals)
PREUSS AKAD DER WISSENSCH (28 separate journals)
SITZENBER AKAD WISS WIEN MATH-NATURW KL (13 separate journals)
ACAD OF SCI USSR (I gave up at 89 separate journals)
A careful job of simplification can yield splendid enigmas:
COMP REND (a prize should be given to the person submitting the most journals with this title)
BER
DOKLADY
REPORTS, TECHNICAL MEMOS
THESES
MATH-PHYS KL

The secret code is enhanced by translating titles of journals from the original language into English, French, or German, or by substituting added titles for the main title. These do not have to be abbreviated to cause misery, though that helps. For example, the reference

WORKS PHYS INST ACAD SCI UKRAINIAN SSSR

could be one of three things:

AKADEMIIA NAUK U.R.S.R. FIZICHNO-MATEMATICHII VIDDIL. ZAPISKI.

AKADEMIIA NAUK U.R.S.R. FIZICHNO-MATEMATICHII VIDDIL. TRUDY.

FIZICHNI ZAPISKI. MEMOIRES DE PHYSIQUE.
A nobly abbreviated scientific journal title, such as PUBLIKAPTEUN ASTR INST (actually GRONINGEN. RIJKSUNIVERSITEIT. KAPTEYN ASTRONOMICAL LABORATORY. PUBLICATIONS) can make an Inter-Library Loan Librarian yearn for a cup of hemlock.

The prize in my list was FACHGRUPPEN II which turned out to be AKADEMIE DER WISSENSCHAFTEN, GOETTINGEN. MATHEMATISCH-PHYSIKALISCHE KLASSE. NACHRICHTEN z. PHYSIK, ASTRONOMIE, GEOPHYSIK, TECHNIK. NEUE FOLGE.

The utter faith of scientists that librarians can find things from their short footnotes is touching. It really has to be experienced to be appreciated.

From the above example, it may be seen that the possibilities in short footnotes are endless. Perhaps we should be thankful they are not more ambiguous than is now the case. One mathematician at Princeton, a citation indexer, is currently working on a method for making abbreviations for abbreviated journal titles!

Word abbreviations are a part of the game. The possibilities for making “obvious” ones are challenging. Here are a few examples which turned up during the labors of the American Standards Association’s Committee Z39; Subcommittee on Periodical Title Abbreviations:

<table>
<thead>
<tr>
<th>ADV</th>
<th>Advertising</th>
<th>NAT</th>
<th>Natural</th>
</tr>
</thead>
<tbody>
<tr>
<td>APP</td>
<td>Apparatus</td>
<td>PROC</td>
<td>Process</td>
</tr>
<tr>
<td>CHRON</td>
<td>Chronicle</td>
<td>REP</td>
<td>Report</td>
</tr>
<tr>
<td>N</td>
<td>New</td>
<td>REPR</td>
<td>Reprint</td>
</tr>
<tr>
<td></td>
<td>North</td>
<td></td>
<td>Republic</td>
</tr>
</tbody>
</table>

All of this brings up the question, “What is the purpose of a footnote?” Obviously it is not to show how learned the author is, nor to look impressive, nor to add weight to an article. A reader who critically reads a paper in a subject in which he is interested will often want to check some of the original sources, either to see if he agrees with the interpretation of the citing author, or to find out whether there is more information in the original he can use. The purpose of a footnote is to identify a source so that the reader may find it easily. The footnote should contain enough data so that he can find the source himself without having to call upon a librarian.

A part of the current “literature crisis” in the sciences can certainly be attributed to the use of super-short and cryptic footnotes, which hide sources rather than lead to them. In case memories are short, the same

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kind of citations were used in historical writing in the 19th century, but, ironically, were dropped as unprecise when the new "scientific" historical method was adopted. In the sciences, instead of examining and improving upon citation methods, there has been a tendency to blame libraries, catalogs, classification systems, indexes, and abstract journals for many troubles which could be stopped at their beginning by the use of fuller footnotes.

There is no "literature crisis" in the humanities in spite of the fact that sources are much more complex bibliographically, and, incidentally, where there are at least five times as many sources available for citation. This is because citations are made with long, full, happy footnotes. Judging from the loud and persistent howls from the scientific community, misery is indeed a short footnote.
Reflections on the Development of an Automated Serials System

DONALD P. HAMMER, Serials Librarian
Purdue University Libraries, Lafayette, Indiana

AFTER MANY YEARS of grappling with the sheer mass of serials and their baffling bibliographic instability, the Purdue University Libraries decided to transfer the burden to the electronic care of computers. While the manual method of serials control had served well in the past and was still capable of producing the usual limited results, it could not meet the versatile demands made by today's library patron.

In order to improve serials performance so that the patron's need for specialized, up-to-date information could be met, a computer controlled serials system was developed. The new plan includes check-in of all serials (not just periodicals), the preparation of receipts lists and book catalogs offering varied approaches to retrieval, a claims system, and a binding preparation system (the latter two not yet operational). Since machine-oriented serials systems are described elsewhere in the literature,¹ ² there is no need to relate the intricacies of the Purdue system except where it varies from the others.

To our knowledge, Purdue is the largest library to have operational an automated serials system. Unfortunately, the enormity of a library tends to hinder the development of a machine system, and this fact will probably slow the entrance of the largest libraries into the computer field. If only the input problems in a large library are considered, the difficulties to be surmounted are adequately indicated. The serials catalog at Purdue consists of about 50,000 cards and if 200 characters per card is estimated, there are about 10,000,000 characters to be key punched and verified or revised. The figure used by computer people as the average speed of key punching is 10,000 characters per hour from prepared copy and under the most favorable conditions. Double that figure to include verification, and it will take one person about a year to keypunch and verify a catalog consisting of about 50,000 serials cards. Even though these figures seem large, they become slight when compared with libraries larger than Purdue—the Library of Congress, for example, with 66,000,000 characters in its serials file.

To advance one step further, consider the problem of key punching a large library's entire (not just serials) card catalog. It has been estimated that twenty man-years of key punching would be required to convert Purdue's union catalog to punched cards. That estimate concerns only the author catalog as a computer program would be written to produce automatically, i.e., without further key punching, all subject, title and added entries.

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Before a library is concerned with key punching, however, the "horror"s of editing the serials records must be faced. If a library has had errorless cataloging from the first day of its organization and has been able to keep up with all entry changes, additions and corrections, then the key punching can probably be completed directly from the catalog cards without further effort. There are, however, not many libraries dedicated solely to nurturing their card catalogs. Most libraries cannot key punch directly from their cards without extensive editing. Along with many hours of editing, much effort must be expended withdrawing titles not worthy of inclusion in a new system.

At Purdue, upon completion of the editing and revising, it was found that 1400 titles had been withdrawn from the serial collection—all of them smattering runs or trivia. This editing and weeding effort exposed the changes that have taken place in the philosophy of library acquisition. Gone is the day in which every library feels a great responsibility to keep everything left behind by the mailman.

The evolution of library cataloging also shows during this editing-weeding process. The varying forms of entry that have been employed in a catalog over the years are sometimes appalling. The inconsistencies of filing, of capitalization, and of spelling manifest themselves along with all of the changes in the library's cataloging policies. These things are, however, not negative signs, but positive symbols of change and growth.

One of the many advantages resulting from the development of an automated serials book-catalog is the ease with which changes and/or additions can be made to library's records. When one item of data is to be altered in a single record, the identification of the data to be altered, the new data, and the proper coded instruction are key punched into a card. The change is automatically executed on magnetic tape when the card is read by a computer. Thus all card pulling, erasing, revising, and refileing are eliminated. When one item of data is to be altered in many records—for example, a change in the location of a large number of books—a brief computer program can be written that will correct thousands of records in a few minutes.

The computer's almost effortless acceptance of change is a tremendous asset to a continually expanding library. At Purdue the present main campus student population of about 18,000 is expected to grow to more than 30,000 by 1970. The annual subscription list is now about 15,000 titles, and many more serials are received as gifts or on exchange. There are fifty-two separate destinations for these publications, including twenty-five departmental libraries and a variety of specialized collections. There are also four off-campus centers scattered around Indiana for which all technical processes are carried out at the main campus library. All of this means continual change and continual expansion. The only intelligent—nay, possible—way to administer such an octopus with rabbit-like progenitive tendencies is through automation.

The University's Computer Sciences Center has an IBM 7094 computer and two IBM 1401's which are available for the Libraries' use. The
Data Processing Unit in the libraries has its own unit record equipment—card punches, sorter, verifier, and collator.

There are a few variations in the Purdue system from the usual methods of operation. The logic of computers, however, leads everyone more or less down the same road, and so any differences from one system to another are, for the most part, only embellishments or differences resulting from a choice of possibilities. Purdue's computer programs are written in COBOL, a programming language that reads much like English and, therefore, lends itself to easier revision and understanding than do other computer languages.

When Purdue's system was designed, it was recognized that the tape operations could be accomplished in one of two ways. All serials data, i.e., both new and retrospective data, could be contained on one tape with all runs read from that tape. This would mean that all of the data on every title, active and inactive, would have to be handled by the computer during every run. With a large mass of ever-increasing data, this approach seemed too expensive, particularly in a system of weekly runs.

The second approach, and the one that seemed better for Purdue, was that of writing two separate tapes, one containing the retrospective data and the other the current data written since the last completed serials book-catalog was printed. The current tape contains new holdings data, updated bibliographical changes, new subscriptions placed, new titles cataloged, and related information. This tape updates the retrospective tape every six months immediately before a new printing of a revised catalog. It also provides the weekly cumulated print-out that supplements the catalog between new editions. With this approach the mass of data which concerns inactive titles and retrospective holdings of active titles is not involved in every weekly run.

When the entire serials project is operative, there will be an additional tape in the system; this will contain the claims and binding data, and it will not be involved in either the weekly updating runs or the six-month catalog print-outs. Binding runs will be on a three-weeks cycle, and claim runs will be monthly.

During the weekly runs through which the catalog supplements are produced, a number of by-product statistical reports are provided. Some of these are the total number of issues received during the past week, a running total of the number of titles and duplicate titles in the serials collection, error totals; and, when the system is wholly operative, running totals of titles by subject, language, and national origin. Such information is, of course, useful to library administrators concerned with the development of balanced library collections.

The computer, incidentally, monitors the accuracy of data as it processes new input. It will not accept certain code errors, incorrectly punched data, data out of proper sequence, and other discrepancies. As it recognizes such "sins", it prints out a notice of each error and defines it. Figure 1 is an example of an error print-out. Figure 2 is an example of a weekly print-out which, to some extent, resembles the planned format.
of the book catalog now in preparation. It should be mentioned that, while the weekly supplement illustrated in Figure 2 shows the titles abbreviated, the completed catalog will include the full title of each serial.

Even though the new procedure was not installed as a means to decrease serials check-in time, the question has occasionally been raised as to which of the two check-in systems is faster—the new procedure of matching a serial issue with a card, or the old Kardex file system. After five or six months of operating both methods side by side, a time-check was made with each of the check-in clerks. Over a period of four days three different clerks were timed as they checked-in a total of 1,044 periodical issues. It was found that there was no significant difference in check-in time.

While this brief test proved nothing that was not already obvious through observation, it did verify some pre-suppositions. Among them was the fact that good hand and eye dexterity is even more important in the performance of the punched card system than in the old check-in method; and, because the titles printed on the IBM cards are severely abbreviated so as to have only one card per checked-in issue, a thorough knowledge of the titles and a good memory are especially useful traits for a check-in clerk to possess. The abbreviation of the titles, incidentally, is not so much a necessity as it is a matter of choice.

Finally, the proof of a new system is in the using. Fortunately, all of the check-in clerks who live with the automated system everyday have expressed approval. If the procedure cannot gain the confidence of those who must use it, then it certainly cannot accomplish the purposes for which it was designed. The many advantages to be gained from an automated serials system have spurred interest at Purdue in the expansion of automation to other library routines. Work has been completed on a budget and accounting system. The Order, Catalog, and Card Preparation Units have been studied, and their routines will be automated as soon as possible. Eventually, as now planned, all areas of routine operation in the Purdue Libraries will be investigated and machine systems designed until the Libraries are as fully automated as reasonable cost will allow.

REFERENCES


Library Resources & Technical Services
Fig. 1—This printout indicates titles for which the computer has detected missing issues and errors in input.
Fig. 2—This is half a page from the weekly cumulative printout which the library patron consults for current serials information.
PAIS, Fiftieth Anniversary

JOHN FAY, Chairman
Public Affairs Information Service

THE FIFTIETH annual cumulated Bulletin of Public Affairs Information Service was published at the end of 1964. This marks a half century of weeklies and cumulations which have listed, by subject, current books, pamphlets, periodical articles, and government reports—and any other useful material in the fields of economics, the social sciences, and public affairs, in the English language, regardless of point of publication.

Originally the Bulletin was designed to be of use to legislative and municipal reference libraries, but it quickly expanded to meet the needs of state, municipal, college, university, and special libraries, as well as government agencies. The weekly Bulletin, issued 43 times a year, is superseded by cumulated Bulletins which appear five times a year. The fifth cumulation, which supersedes all others, is a bound annual volume for permanent reference.

Public Affairs Information Service, popularly known as PAIS, is chartered by the Regents of the University of the State of New York as a non-profit association of libraries. The fee for full membership in 1914 was $100 a year; it is still $100. The first annual cumulation covered 344 pages; currently the annuals run to more than 900 pages. Since 1919, PAIS has been edited in the Economics Division of The New York Public Library.

Many notable names in library annals were associated with the formative and early years of PAIS. Among them were (in their positions at the time): John A. Lapp, Director of the Indiana Bureau of Legislative Information; Joseph L. Wheeler, Librarian of the Youngstown Public Library; C. C. Williamson, Municipal Reference Librarian of the City of New York; George S. Godard, Connecticut State Librarian; and Frederick C. Hicks, Law Librarian, Columbia University. Later would come Dorsey W. Hyde, Jr., Chamber of Commerce of the U.S.A.; Rollin A. Sawyer, Chief of the Economics Division, The New York Public Library; and Marian Manley, Librarian of the Newark Business Library.

In the first issue of the just-organized Special Libraries Association’s Special Libraries, January 1910, John A. Lapp, the most persistent advocate of a public affairs index, mentioned the desirability of publishing in the magazine lists and bibliographies of cooperating libraries, and he wrote of plans for a clearing house of information. In February, he ran a column called “Public Affairs, Notes and References.” His influence as editor of the magazine meant that many of the bibliographies appearing
in the beginning years followed a public affairs formula and met the need of libraries lacking sources of specialized information. At the Mackinac convention of the Special Libraries Association in 1910, Dr. Lapp proposed a public affairs index. He said that the "general [indexing] field is fairly well covered at present. The special field is almost untouched." A year later, at the New York convention, he gave a report for the Committee on a Public Affairs Index in which he spoke of the need to cover reports of associations, civic and commercial organizations, as well as government documents.

When, in the December 1913 issue of Special Libraries, the plan for a Public Affairs Information Service was formally outlined, Dr. Lapp had already distributed 15 mimeographed bibliographies to 40 cooperating libraries. The plan was that the cooperating libraries would supply information to Dr. Lapp's office at the Indiana Bureau of Legislative Information, where his staff would cumulate the information, type and distribute it. In addition to this, typewritten material, such as bibliographies and digests of legislation, prepared by the various libraries, was copied and sold to cooperators at the cost of copying. Soon there was evidence that some of the libraries were not taking their cooperative responsibilities seriously, and a stronger organization seemed to be required. Dr. Lapp began to consider putting the information on cards. By May 1914, 36 lists, from 2 to 5 pages each, had been issued; for this service the cooperating libraries paid $25 a year. This proved an inadequate amount because of the heavy load imposed upon the Indiana librarians; and Charles C. Williamson, who was taking a more active role, was eager for a printed publication.

H. W. Wilson Company had been interested in the work of the cooperative index, and in 1914 a printed Bulletin, printed on one side of the leaf and dated October 15, was the first one to be distributed from the Wilson Company presses for the cooperating libraries. Mr. Wilson, generous as he and the company have always been to PAIS, provided free space and equipment for the editorial staff during the beginning phases, carried the financially uncertain publication through the opening months, and only later did he begin to charge PAIS $25 a month for space. His experience in the making and cumulating of indexes and in the financial problems of indexes were of inestimable value to Dr. Lapp, who made journeys from Indianapolis to the Wilson offices, then in White Plains, New York, to oversee the work on the Bulletin.

Dr. Lapp must be considered the moving and persistent spirit behind PAIS. Two other men have had a particular role in its history, Charles C. Williamson, who developed it into the form it has today, and Rollin A. Sawyer who made it an economically feasible continuing publication of high editorial integrity. Dr. Williamson not only favored a printed Bulletin, but he sought the extensive and cumulated listing of information which mimeographing did not permit. When he returned, in 1918, to the Reference Department of The New York Public Library, as Chief of the Economics Division, he was further convinced that the
vast array of English language material received by the library in public affairs should be brought to the attention of a wider audience. He wrote, "The P.A.I.S. is not, and should not attempt to be, a systematic index of a definite list of periodicals or other publications. It should aim to present only the best and most useful material, carefully selected from a wide range of sources, with a view to furnishing its subscribers, consisting mainly of general and special libraries, a guide in building up their collections and at the same time an index to their collections."

The interest of Mr. Wilson and the Wilson Company in PAIS had been enthusiastic and altruistic. Mr. Wilson was finally convinced that transferring the editorial staff to the public library would have advantages, especially after the Wilson Company was located in the Bronx, and the company thus able to provide messenger service for quick work on copy. Dr. Williamson needed to persuade the Library to provide free space in the Economics Division and give the editors immediate and full access to all incoming publications. This too was arranged, and the editors moved to the library in November, 1919, where they were to have a side door mailing address, 11 West 40th Street, which has continued to be the PAIS address over the years.

The growth of PAIS meant that a more formal arrangement needed to be arrived at for the conduct of its business and in 1919 Articles of Agreement were drafted and approved. The Bulletin ran at a deficit during a number of its early years, which would have meant that cooperating members' fees could not have been returned had the Bulletin suspended. Rollin Sawyer, who became chairman of the PAIS board of trustees in 1921, a position he held until his death in 1960, exercised skilled advisory editorial help and also managed the business of PAIS, aided by H. J. Grumpelt, the bursar of The New York Public Library. Under Mr. Sawyer's chairmanship, the Bulletin continued to grow in size. Its regular issue was predictable. It brought in more members. It became financially stable. The Wilson Company stayed on as printer and distributor and, as Mr. Sawyer said in the January 15, 1946 issue of Library Journal, "no other printers could have produced the cumulated bulletins at so reasonable a price, if at all. With only a verbal agreement, Mr. Wilson and his associates have printed the Bulletin on time and without the slightest interruption or disagreement... a performance which it is a pleasure to record."

In the early fifties, there was a question whether PAIS, a non-profit membership organization, was subject to tax. The efforts of a new trustee, Charles F. Gosnell, then New York State Librarian, secured an educational charter for the corporation, and tax free status was thus possible. The narrow margin on which PAIS runs would have been seriously affected by a tax levy, and rates would have had to be raised for the membership.

In College and Research Libraries, for July 1954, Marian Manley, in her article "Personalities behind the development of PAIS," gives an intimate picture of the people concerned with the publication during the

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early years. While the early officers continued in many instances for a long period, Dr. Williamson had left in 1921, Dr. Lapp in 1928, and Mr. Godard in 1936; Mr. Wheeler continued until 1947 and Mr. Hicks until 1948. Miss Manley retired in 1964. The present trustees, aside from Dr. Gonsell are: Janet Bogardus, librarian, Federal Reserve Bank of New York; Donald T. Clark, University Librarian, University of California, Santa Cruz; John Fall, Chief of Economics Division, The New York Public Library; Martin Loftus, Librarian, Joint Library of International Monetary Fund and International Bank for Reconstruction and Development; and Eileen Thornton, Librarian, Oberlin College. The trustees are elected by the membership for six year terms, one every year.

The present editor, since 1953, is Robert S. Wilson, assisted by an associate editor, Mary MacQuibben; both are librarians, formerly on The New York Public Library staff. They are aided by two assistant editors and three editorial assistants. The staff of PAIS has always been small. In the past, it had even fewer people, many of them serving long years, at a time when there were fewer benefits except for the satisfaction of work they regarded as significant. Mary Elizabeth Furbeck was one of these editors, her tenure was longest, from 1925 to 1947; her assistant editor, May Mellinger joined PAIS in 1924 and remained until 1946.

The first editor, 1914-1915, Orrena Louise Evans, had the many problems of organizing an index for which there were few guides. Lillian Henley followed her, serving for three years; Mildred Noe Johnson was acting editor in 1919 until Alice Jewett took the position, holding it for two years, 1920-1921. Harriet Bircholdt succeeded Miss Jewett and remained until 1924. Mary E. Bartley, long an editorial assistant, became assistant editor in 1945, and editor in 1948. Ella Struska has been assistant to the Chairmen and a continuing help to the editors since 1919.


CATALOG OF DANCE COLLECTION

A book catalog of the materials in the Dance Collection of the New York Public Library is in the initial stages of production. The catalog will be computer-generated, produced by means of a 1403 Type III Printer utilizing a specially-developed chain having the capacity of upper and lower-case, also diacritical marks.

When it is published in the late spring, the six-volume catalog will serve as a key to all of the materials on the dance in the new Library and Museum of the Performing Arts which The New York Public Library will open at Lincoln Center. Copies will be sold to libraries, publishing houses, and others. Supplements will be issued regularly and will be available on a subscription basis.

The production of the catalog has been made possible through a grant of $72,000 from the Ford Foundation.
Use of Library of Congress Classification Decisions in Academic Libraries—An Empirical Study

PERRY D. MORRISON, College Librarian
Sacramento State College, California
and CATHERINE J. (MRS. PERRY D.) MORRISON

THE PURPOSE of this study was to estimate the amount of use made by academic libraries of classification information furnished on Library of Congress cards and the extent to which it is modified to fit local needs. To this end, data were gathered by sampling at random the cards in the catalogs of three state college libraries and in the printed book catalog of one campus of a state university. The total sample consisted of 588 cards. For comparison, a further sample of 135 cards was drawn from a state college library using the Dewey system of classification.

Printed Cards vs. Local Cataloging

Table I shows the proportion of printed (or photo-reproduced) Library of Congress cards used in each library compared with the number of locally-prepared cards. When interviewed, librarians at the state colleges gave estimates of the proportion of Library of Congress cards used to be from 80 to 85 percent of the total cards filed. The sample data substantiate the librarians' estimates, the proportion for the state colleges being 84 percent. The large university collection required more original cataloging. Indeed, there was a modest tendency for proportion of local cataloging to increase with the size of the state colleges.

The effect of language and date of publication on the proportion of local cataloging required may be estimated from the data in Table II. The differences attributable to date of publication appear not to be significant.1 In the state colleges, recent publications seem to have required somewhat less original cataloging than earlier ones, while in the university there is a very slight tendency in the opposite direction. Neither difference is large enough to warrant much consideration. The finding that Library of Congress cards are more frequently available for books in English than in foreign languages will surprise no one. However, the fact that the proportion of non-English titles was much higher in the university (37%) than in the state colleges (6%) explains why it does more original cataloging.

1 Statistical tests show that the difference involved could well have occurred by chance.

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Acceptance of Library of Congress Classification Decisions

Before Table III can be discussed, a word about terminology is in order. For the purposes of this paper, the following elements in a typical Library of Congress "number" will be referred to as follows:

<table>
<thead>
<tr>
<th>Class Letter</th>
<th>Class Number</th>
<th>Shelf Number</th>
<th>Date</th>
<th>Volume Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>2129</td>
<td>.B7N3</td>
<td>1941</td>
<td>Vol. 3</td>
</tr>
</tbody>
</table>

**TABLE I**
Books Cataloged With and Without Library of Congress Cards in Three State Colleges and One State University Campus

<table>
<thead>
<tr>
<th></th>
<th>Three State Colleges (N: 448)</th>
<th>State University Campus (N: 140)</th>
<th>Total (N: 588)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Cards Used</td>
<td>84 %</td>
<td>71 %</td>
<td>81 %</td>
</tr>
<tr>
<td>Local Cataloging</td>
<td>16 %</td>
<td>29 %</td>
<td>19 %</td>
</tr>
</tbody>
</table>

Note—Proportions of titles cataloged with LC cards for each individual state college:

- College A (150,000 vols.) 80%
- College B (111,000 vols.) 84%
- College C (53,000 vols.) 90%

**TABLE II**
Books Cataloged With and Without Library of Congress Cards in Three State Colleges and One State University Campus By Date of Publication and By Language

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Cards Used</td>
<td>80 %</td>
<td>86 %</td>
<td>73 %</td>
<td>68 %</td>
</tr>
<tr>
<td>Local Cataloging</td>
<td>20 %</td>
<td>14 %</td>
<td>27 %</td>
<td>32 %</td>
</tr>
</tbody>
</table>

Note—Publication date not available in 4 cases.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC Cards Used</td>
<td>85 %</td>
<td>68 %</td>
<td>77 %</td>
<td>62 %</td>
</tr>
<tr>
<td>Local Cataloging</td>
<td>15 %</td>
<td>32 %</td>
<td>23 %</td>
<td>38 %</td>
</tr>
</tbody>
</table>
The words "shelf number"—which includes letters—is used to distinguish the Library of Congress system of shelf marks from the Cutter system. (Both are sometimes called "Cutter numbers" even though the Library of Congress system is considerably different from that found in Cutter or Cutter-Sanborn tables.)

Table III indicates that the three colleges, taken together, accept without change approximately two-thirds of the classification data given on the printed cards. Changes are made only occasionally in the class letter or number sections of the total symbol. More frequent (but usually minor) changes are made in shelf numbers. From time to time, also, a date or a volume number is added to the Library of Congress number. It appears that most of the changes are made in the shelf symbols in order to (1) resolve conflicts in the local catalog, (2) indicate that the book at hand differs slightly from the one represented on the printed card, (3) shorten the number or (4) otherwise meet a local desire in shelf arrangement.

Although it generally accepts Library of Congress shelf numbers, one of the college libraries studied has a policy of substituting a Cutter-Sanborn number in cases where the former are thought to be too long or otherwise inappropriate (e.g. for recent authors who have published voluminously but for whom Library of Congress has left insufficient room in the classification scheme). This raises the question as to whether the Library of Congress shelf number scheme produces longer numbers than Cutter-Sanborn tables applied to a large library. Fortunately, the data from the university sample sheds light on this matter: This library long ago made a decision to use Cutter numbers rather than Library of Congress shelf numbers even though it uses the Library of Congress classification scheme. By comparing the shelf number printed on the card with the Cutter number assigned by the library, it was possible to compare the length of the two. It turns out that the average length of the Library of Congress shelf numbers is less than that of the corresponding locally-assigned Cutter numbers, but the Library of Congress advantage occurred entirely among numbers which were short (six or fewer characters) in either scheme. Of a total of 96 shelf numbers—remember, these do not include the class numbers in either scheme—the Library of Congress system produced 24 numbers over seven spaces long, whereas the Cutter system produced 23. Thus, there seems to be little advantage to be gained by the added work of substituting Cutter numbers for those given by the Library of Congress. Both schemes produce some rather long numbers. In both systems, three of the 96 numbers were over thirteen spaces in length.2

Despite the fact that a fair proportion of the shelf numbers suggested

2 There is a third possibility which none of the libraries surveyed used: Ad hoc application of the LC shelf number system locally rather than by copying the LC assigned number appearing on the card. This might well produce the shortest numbers but at the cost of more staff time than that required to "borrow" the shelf number as well as the class number from LC.
TABLE III
Local Changes in Numbers Furnished on Library of Congress Cards

Note—This table refers only to those cases in which Library of Congress cards were used.

<table>
<thead>
<tr>
<th></th>
<th>College &quot;A&quot; (N: 128)</th>
<th>College &quot;B&quot; (N: 120)</th>
<th>College &quot;C&quot; (N: 129)</th>
<th>Total (N: 377)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC numbers used without change</td>
<td>63 %</td>
<td>74 %</td>
<td>58 %</td>
<td>65 %</td>
</tr>
<tr>
<td>Class letters or number changed</td>
<td>12 %</td>
<td>4 %</td>
<td>3 %</td>
<td>6 %</td>
</tr>
<tr>
<td>Shelf number changed</td>
<td>6 %</td>
<td>19 %</td>
<td>22 %</td>
<td>16 %</td>
</tr>
<tr>
<td>Date or volume number changed or added</td>
<td>18 %</td>
<td>3 %</td>
<td>12 %</td>
<td>11 %</td>
</tr>
<tr>
<td>No number furnished on LC card*</td>
<td>1 %</td>
<td></td>
<td>5 %</td>
<td>2 %</td>
</tr>
</tbody>
</table>

Notes—College "A" has a collection of 150,000 volumes; College "B", 111,000; College "C", 53,000.
Statistics for the university are not included since it uses the Cutter instead of LC system for all shelf marks. This means that it accepts LC work only for the class symbols.

*These were mostly "Contributed cards" from other libraries or cards printed by the Library of Congress for the "All The Books Program" with the books themselves not being added to Library of Congress. There was only one card for a law book—a subject for which Library of Congress does not furnish classification data.

by Library of Congress must be modified somewhat, the librarians interviewed indicated that the efficiency\(^3\) flowing from using the Library of Congress rather than the Dewey-Cutter system is attributable as much to the shelf-number scheme as to the classification itself!

Table IV relates the dates of publication of the books represented to the question of whether libraries tend to change Library of Congress classification decisions to meet local needs. It would appear that older books required fewer changes than more recent ones. One explanation for this is that as a library grows, shelf-numbers furnished by Library of Congress must be amended somewhat more frequently to resolve conflicts with numbers already assigned locally to older books.

Character of Changes Made to Adapt Library of Congress Data to Local Requirements

Changes are made in class letters—i.e. in the primary classification of the book—rather infrequently in the libraries studied (about 6 cases per 100 cards, on the average, for the four libraries). However, these changes are of considerable interest to those who are considering embarking on classification projects involving the Library of Congress.

\(^a\) None of the libraries visited has done time studies, but the most conservative estimate encountered was that the Library of Congress system gives a three to two advantage—i.e. three books can be classified in LC in the same time it takes to do two in the Dewey-Cutter system.
TABLE IV
Relation of Date of Publication to Local Changes Made in Numbers Furnished on Library of Congress Cards Used in Three State Colleges

<table>
<thead>
<tr>
<th></th>
<th>Pre-1950</th>
<th>Post-1950</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N: 114)</td>
<td>(N: 263)</td>
</tr>
<tr>
<td>LC Numbers Used Unchanged</td>
<td>77</td>
<td>60</td>
</tr>
<tr>
<td>LC Numbers Changed</td>
<td>23</td>
<td>40</td>
</tr>
</tbody>
</table>

TABLE V
Changes Made by Local Libraries in Numbers Furnished by the Library of Congress

Three State Colleges
(Changes were made in 20 of 370 class letters furnished on Library of Congress cards)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>From</th>
<th>To</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>J</td>
<td>PZ</td>
<td>PN</td>
<td>QA</td>
<td>LB</td>
</tr>
<tr>
<td>G</td>
<td>LB</td>
<td>PZ</td>
<td>PG</td>
<td>R</td>
<td>RA</td>
</tr>
<tr>
<td>H</td>
<td>HD</td>
<td>PZ</td>
<td>PH</td>
<td>Z</td>
<td>PN</td>
</tr>
<tr>
<td>H</td>
<td>HE</td>
<td>PZ</td>
<td>PL</td>
<td>Z</td>
<td>RC</td>
</tr>
<tr>
<td>PR</td>
<td>PE</td>
<td>PZ</td>
<td>PL</td>
<td>Z</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PZ</td>
<td>PG</td>
<td>Z</td>
<td>HB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Z</td>
<td>HA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Z</td>
<td>HD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Z</td>
<td>PF</td>
</tr>
</tbody>
</table>

State University Campus
(Changes were made in 9 of 96 class letters furnished on Library of Congress cards)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM</td>
<td>CB</td>
<td>PE</td>
<td>AS</td>
</tr>
<tr>
<td>BV</td>
<td>LC</td>
<td>PQ</td>
<td>PN</td>
</tr>
<tr>
<td>E</td>
<td>J</td>
<td>PZ</td>
<td>PR</td>
</tr>
<tr>
<td>H</td>
<td>HD</td>
<td>QE</td>
<td>Q</td>
</tr>
<tr>
<td>JK</td>
<td>J</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

scheme. Table V shows that in the state colleges a majority of the changes were what might be called "programmed" or "blanket" decisions to change routinely numbers in certain portions of the PZ and Z classes. These colleges appear to make only occasional ad-hoc decisions to put a particular book into a different classification section from that suggested by the Library of Congress.

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On the other hand, the table suggests that the university library has been challenging Library of Congress decisions in many areas in order to adapt its shelf arrangements to local needs. Regrettably, it may well be that, as an institution develops, powerful—but often evanescent—forces on the campus tend to leave their marks on the classification scheme. This renders classification work more expensive as new books are added to the shelves. Once a local deviation has been inaugurated, new accessions must be adapted to it thereafter. Unfortunately, since the sample for the university library was drawn from the printed catalog rather than by visiting the campus, specific information concerning the historical background of the classification decisions could not be gathered.

Although minimal at some institutions, a degree of adaptation of Library of Congress numbers seems to be essential: PZ, especially, does not accommodate well or arrange conveniently, certain branches of literature. Hence, some changes were made in this class in all libraries surveyed. Whether a library can live with Library of Congress Z scheme as it stands is also a matter for local decision, but it should be pointed out that some libraries do apparently get along with it. The law classification, K, is another source of frustration. Until Library of Congress completes and publishes its scheme, temporary expedients must be used in a general library. These vary—e.g. (1) use of a preliminary outline of the proposed Library of Congress scheme; (2) adopting the Los Angeles County Law Library system; (3) use of K followed directly by a shelf number and (4) use of Dewey 340. The sooner the Library of Congress scheme is developed and published, the less recataloging will be required in general libraries holding law books. Also, many special law libraries are delaying classification of the portions of their collections which might benefit from a classed arrangement pending the development of a satisfactory scheme.

Comparison with Dewey

For purposes of comparison, a sample of 135 cards was drawn from the catalog of a state college library using the Dewey decimal system of classification. Since Cutter numbers are not included in the decimal-system numbers suggested on Library of Congress cards, only the class numbers could be analysed.

Of the 135 cards, 40 were locally prepared indicating that this library has done a higher proportion (30%) of original cataloging than the other state college libraries studied (16%). This leaves 95 cases in which Library of Congress cards were used. In 23 of these (24%) no Dewey classification number was given by Library of Congress, making it necessary to do all of the classifying locally. In 47 cases (50%) the class number used by the college library differed from the one printed on the Library of Congress card. Thus, in only 25 cases (26%) was the Dewey classification number used by the local library the one suggested on the printed

card. The corresponding proportion for the college libraries employing the Library of Congress classification was 87% used without change.

**Interpretation**

In interpreting the ratios given in this study, it should be remembered that the figures are for books acquired throughout the history of the library. The amount of local cataloging required at any particular time varies with the stage of development of the library concerned. As a library's acquisitions program increases and becomes more sophisticated (e.g., includes more foreign language materials) the proportion of local cataloging required may be expected to increase. To put this another way, the amount of help a library receives from data on Library of Congress cards may well increase in *absolute terms* as the acquisitions program becomes more extensive and complex, but the *proportion* of such help is likely to decline. At what point this decline ceases is not revealed by the data. However, one 850,000 volume university library recently found that it uses Library of Congress cards for 59% of its currently-received monographs. Policy decisions at a particular library greatly influence this figure: e.g., one 170,000 volume state college library using the Dewey classification has a policy of sharply limiting the amount of time it will wait for Library of Congress cards. It feels that patrons desiring to use a book should not be required to wait while attempts are made to secure delayed Library of Congress cards. Thus, it currently does original cataloging to a greater extent (41%) than another library at about the same stage of development (ca. 20%). The librarians at this college feel that this policy is not only a service to patrons but also that the additional work required to secure delayed Library of Congress cards cancels out the advantage of using the printed cards. Since it uses the Dewey classification, this library does not get as much help from the cards as do those using Library of Congress scheme, in any event.

**Conclusions**

This study gives support to the contention that local libraries can—and do—save a great deal of time and effort as a result of the Library of Congress making its classification decisions available to other libraries. Were the national library to cease classifying its books, a crisis of considerable moment would confront each and every one of the increasing number of libraries using its scheme. Not only the statistical data, but also the opinions of the librarians involved, point to the conclusion that newer libraries, such as those of the state colleges surveyed, tend to accept a large proportion of the classification information supplied by the Library of Congress with a resultant increase in the efficiency of the classification process. Nor is there evidence of service loss by doing this.

**A Note on Sampling**

Inasmuch as samples used in this study are not large, an indication of
sampling error is in order. As an example, the figures given in Table I for university (N: 440) indicate a sampling error of not more than ±8% at a confidence level of 95%. In other words, the odds are very good indeed that the proportion for the universe of cards in the catalog would not vary by more than 8% from the estimate yielded by the sample. For the larger sample of all three state colleges (N: 448) the sampling error is only ±3.5%.

The totals for the three state colleges have not been weighted for size of collection nor size of sample for each college. Typically, such weighting procedures have a negligible effect on the total percentage (1% in the case of local vs. Library of Congress cataloging in the state colleges). To attach weights to such statistics produces complications in interpretation; so it was not done.

Statistical significance: levels of significance vary with size of sample and other factors. The differences in Table V, for example, meet a 1% significance test. On the other hand, differences in Table II regarding date of publication do not meet even a 5% test and therefore do not justify any very firm confidence that a relationship exists.

(Editor's note: Mr. Morrison reports that the Sacramento College Library has switched to LC classification, partly as a result of this study.)

FIELD SURVEY OF DEWEY USE ABROAD

Early in 1964 the Steering Committee for the Field Survey of Dewey Decimal Classification (DDC) Use Abroad announced that Dr. Sarah Vann and Miss Pauline Seely would shortly begin their visits to the countries chosen for inclusion in the Survey. The Committee is pleased to report that these visits have now been completed, and that work has been begun on a report of findings. This will be transmitted to the sponsoring organizations (The Asia Foundation, The Council on Library Resources, and the Forest Press) and to the Decimal Classification Editorial Policy Committee and the Decimal Classification Editorial Office for study.

Some of the changes suggested had already been anticipated in Edition 17 of the Dewey Decimal Classification, which is already in the press, or could be readily incorporated therein. Others are so basic and far-reaching that extensive study by the publisher and the other groups involved will be required before satisfactory implementation can be effected. All will receive careful study and consideration in order that all possible assistance may be given to users of the DDC.—Edwin B. Colburn, Chairman, Steering Committee, Field Survey of Dewey Decimal Classification (DDC) Use Abroad.
WITH THE ADVENT of Xerox and other photocopying methods, interlibrary loan traffic has been greatly facilitated. The obvious advantage of these devices for the borrowing as well as for the lending libraries have already been highlighted in several articles.¹ For the borrowing party the needed material has been made permanently available. The lending library is no longer compelled to withhold essential publications from circulation for a period of weeks or to run the risk of losing them altogether.

Unfortunately, a situation which has long plagued interlibrary loan librarians has apparently been aggravated with this increased demand: violation of the accepted Interlibrary Loan Code through careless and incorrect citations, especially through the omission of the borrower’s source of reference statement. With the inclusion of the source of reference, the lending library can identify an incorrect or incomplete citation and thus fill a request which otherwise would have to be returned. Erroneously, many borrowers believe that “ULS” or “New Serial Titles” might be substituted for the source of reference. Consequently, this library has found it necessary to send form letters, elucidating what is meant by source of reference.

An exception has to be made for smaller libraries, who may lack the necessary bibliographic tools to verify the citation, a predicament which usually elicits the spirit of helpful cooperation from the larger libraries.

It has been observed that interlibrary loan requests for photocopy are no longer transmitted on the ALA standard unit request forms by many of our borrowers. This short-cut has undoubtedly contributed to the inadequate presentation of citations. Abbreviations are often arbitrary and cannot be identified in standard lists such as the World List of Periodicals. Obviously, inclusive paging should be indicated on all photocopy requests. Another problem for the lending libraries is citations in English translation of articles originally written in Russian, Japanese, or other languages. Since the abstract journal supplied the translated title, the borrower erroneously assumes that the article is in English. Further correspondence is needed to clarify this matter.

In a recent spot survey of interlibrary loan requests addressed to the Albert R. Mann Library at Cornell University, the following omissions and errors were tabulated:

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These bibliographic shortcomings have been specified in the General Interlibrary Loan Code 1952 which appears to be entirely adequate. By conforming to the Code with an improved pattern of citations, time-consuming and ever-more costly searches by the staff of the lending library will be avoided.

REFERENCES


Regional Groups Report, Spring 1965

DORIS RANSOM, Chairman
Council of Regional Groups

SEVEN REGIONAL GROUPS have reported meetings in time for inclusion in this issue. In addition to the regular business meetings, several of the groups heard interesting and timely speakers and panel discussions.

The Chicago Regional Group of Librarians in Technical Services and the Technical Services Section of the Illinois Library Association held a joint program meeting. Elizabeth Rodell (Executive Secretary of RTSD) was the featured speaker. Taking as her topic “The World of Technical Services”, Mrs. Rodell ranged over the current problems and current status of various aspects of technical services, including simplification of procedures, regional processing centers, and national and international standardization.

The Technical Services Section of the Michigan Library Association at its business meeting adopted a revised constitution conforming to MLA and RTSD requirements and heard a report on the progress of its project to publish a list of Michigan government headings.
At the meeting of the Technical Services Round Table of the Ohio Library Association, C. John Easton of Scientific Advances demonstrated and explained the new Se-Lin book labelling device. This was followed by a panel discussion of “Centralized Processing from the User’s Point of View” by three persons from libraries participating in regional processing centers in Ohio: James Hafer (Newark Public Library), W. Russell McWhinney (Cuyahoga Community College), and Marcia Caswall (Rossford Public Library). All were enthusiastic about the advantages of centralized processing for their libraries.

The Cataloger’s Section of the New Jersey Library Association heard Florence Martin Hopkins (Educational Testing Service) describe the reorganization of that special library, including the adoption of the Universal Decimal Classification in combination with the Dewey classification system. Following this paper, Mrs. Hopkins participated in a panel discussion of divided catalogs with Ian Thom and Mrs. A. H. O’Bryant (both of Princeton University) and David Remington (Alanar Book Processing Center).

The Ontario Resources and Technical Services Group held a workshop meeting with Ritvars Bregzis (University of Toronto) speaking on automation of bibliographic control. Mr. Bregzis described automated control as the storage and retrieval of micro-units of information, as contrasted with conventional library methods which store and retrieve information by form and other macro-units. His paper was followed by a panel discussion by Margaret Beckman (University of Waterloo), David Pierce-Jones (Toronto Public Library), James Kanasy (University of Windsor), and Mr. Bregzis.

Following a program meeting at which Lucile Morsch (Library of Congress) and Margaret C. Brown (Philadelphia Public Library) spoke, the Southeastern Regional Group of Resources and Technical Services Librarians held its business meeting.

The Southern California Technical Processes Group heard Betty Rosenberg (UCLA Library School) speak on current trends in library education, with emphasis on technical services and on the new problems of library schools in preparing librarians for automation. Miss Rosenberg’s paper was preceded by a report by Catherine MacQuarrie (Econolist) on the meetings she had attended at the ALA St. Louis Conference and was followed by a tour of UCLA’s new research library building.
Classifying Children's Books

MILBREY L. JONES, Associate Professor
Department of Library Science
Madison College, Harrisonburg, Va.

A REVISION of a classification system developed by the Boys and Girls Division of the Toronto Public Libraries has recently come to the attention of the writer. This system, in use since 1931, has been revised because “The number of books written for children, the changes in the style of writing and the expansion of special fields of interest . . . made it advisable. . .”. (p. 1)

The following shows the broad categories:

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>Picture books</td>
</tr>
<tr>
<td>Z</td>
<td>Informational picture books (including controlled vocabulary titles)</td>
</tr>
<tr>
<td>A</td>
<td>Folk and fairy tales</td>
</tr>
<tr>
<td>C</td>
<td>Myths</td>
</tr>
<tr>
<td>D</td>
<td>Epic and Romance</td>
</tr>
<tr>
<td>F</td>
<td>Famous people</td>
</tr>
<tr>
<td>G</td>
<td>History</td>
</tr>
<tr>
<td>H</td>
<td>Lands and people</td>
</tr>
<tr>
<td>K</td>
<td>Natural History</td>
</tr>
<tr>
<td>L</td>
<td>Pure science</td>
</tr>
<tr>
<td>N</td>
<td>Applied science</td>
</tr>
<tr>
<td>O</td>
<td>Things to do</td>
</tr>
<tr>
<td>P</td>
<td>Art</td>
</tr>
<tr>
<td>Q</td>
<td>Music</td>
</tr>
<tr>
<td>R</td>
<td>Plays</td>
</tr>
<tr>
<td>S</td>
<td>Poetry</td>
</tr>
<tr>
<td>T</td>
<td>World religions</td>
</tr>
<tr>
<td>V</td>
<td>High days and holidays</td>
</tr>
<tr>
<td>W</td>
<td>Standard works of literature (Books by standard authors such as Dickens, Scott, Thackeray, Lamb, Kipling)</td>
</tr>
</tbody>
</table>

The scheme provides for a breakdown using numbers, e.g., in K—Natural History, 10 is for Mammals, 20 for Birds, 80 for Plants, etc. No decimals are used. The revision includes expansion of some subdivisions—a breakdown in certain categories such as science where scientific ideas have been rapidly changing and to allow for new nations in the history and geography section.

The preface to the scheme indicates that since 1931, the system has proved satisfactory, being quick, easy to process, intelligible to children and inexpensive. Further, it is stated that it “groups the reading interests of children more naturally and so makes it easier for them to find their own books than it is with the systems developed primarily for different purposes.” (p. 1)

Examples of this are cited:
When a boy comes to the library to get a book about Ulysses, a section with the heading 'Hero Stories' will seem to him the obvious place to look . . . A boy or girl does not become interested in the Odyssey because it is Greek literature.

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but because it is the story of the troubles and adventures of a brave and enduring man. Again, if he found Ulysses under Greek literature (Dewey Classification) and liked it, and went back for more books like it, he would not find near it, the stories of King Arthur, Roland and Grettir. This would be unfortunate because they would be the kind of stories he was really looking for, and the right books for him to have at that moment. (p. 2)

The classification, it seems clear, is here expected to do the work of the librarian, that is, the reading guidance. No classification system is likely to shelve side by side, the books a child or any person is likely to want next, even if we could predict with any degree of accuracy what a person would want next. For instance, to follow up the example quoted, the child who reads about Ulysses might like to read myths next, which are in another category, or Greek history, in still another category. Or with an unpredictability in which the writer rejoices, he may prefer to abandon the Greeks entirely and deliver messages with Johnny Tremain or Wrinkle in Time with Meg, Charles Wallace and Calvin.

The Toronto classification, it is pointed out "... has been made to correspond roughly with the progression of a child's reading interest from one subject to another, i.e., from picture books to fairy tales, from fairy tales to legendary heroes, and from there to the heroes of history, and so on to the standard fiction that is read by older boys and girls." (p. 3) How true is it that the reading of children progresses in this orderly fashion? Is their reading just as likely to resemble that of Kenneth Grahame's Boy who took natural history and fairy tales in a sandwichy sort of way without making any distinctions? Really, this course of reading does strike one as rather sensible!

The classification scheme does not appear difficult to apply. Using a small sample of titles selected at random from Children's Catalog, one experiences little difficulty in assigning titles to these very broad categories. A problem does occur with W—Standard works of literature. Is Lewis Carroll a standard author or should Alice stay with the fairy tales? And what about George MacDonald and C. S. Lewis? But these problems occur with the Dewey Classification and are nothing new for the children's librarian to ponder.

The basic difficulty experienced with this system and others similar to it which have appeared in library literature is with the rationale for development—that a special classification system is needed for children's books because they are somehow different from books written for adults. How are they different?

It is to be hoped that we have long since resolved the question of literary merit. The same literary standards applied to adult books can be applied to children's books, and the best of the latter will not suffer in the analysis. The worst of the titles intended for children are certainly no worse than the worst of the yearly offering of books for adults.

Books intended for children are simpler to read. It might be said that they are less specialized and deal with simpler concepts, and yet we have children's books on subjects formerly offered to adults only—communism,
the latest of the emerging nations, oceanography, and such advanced biological concepts as animal clocks and rhythms. Where earlier children's books had such titles as *Boy's Book of Science* and *Child's Geography of the World* modern titles are more specific, e.g., *Prisms and Lenses* and *Profile of Kenya*. These books are indeed highly specialized, probably as much so as titles selected for any popular adult collection.

A second point concerns the use which young people make of libraries after they graduate from the children's room. If they emerge from their experience with the children's room, unscathed by encounter with any reasonably detailed classification of books, how can we expect them to cope with the intricacies of the large public library collection, the college or university library? Use of a classification system such as the Toronto scheme may be easier for the library in question, but does it train the student to use the library as an aid to answer the kinds of questions he will face in adult life?

To begin to master in early childhood the basic principles for location of information, to learn to use bibliographies, indexes, and classification systems in progressively more complex forms makes the student's transition from library to library and classroom to classroom easier. If early learning of library skills is to render later learning easier, the use of such non-standard classification systems as the Toronto scheme for children's books only prolongs the child's struggle to learn how to find just the information he needs.

**CONFERENCE ON LIBRARY SURVEYS**

A four-day Conference on Library Surveys will be offered from June 14 to June 17, 1965 at the Columbia University School of Library Service, with Maurice F. Tauber as its director. The Committee on Library Surveys of the Association of College and Research Libraries will be co-sponsor. Outstanding experts in special aspects of library surveying will participate.

The Conference will present up-to-date information on problems and methodology in library surveying and will suggest ways in which surveys may be used in relation to such aspects of library service as processing, resources and collections, administration and management, and library buildings. The special problems of surveying public, academic, state, school and special libraries will also be considered.

The fee for the Conference will be $65. For further information, complete program details or application forms, write to The Dean, School of Library Service, Columbia University, New York, New York 10027.
Japanese Government Publications

NAOMI FUKUDA, Librarian
International House of Japan, Tokyo

Japanese Government Publications can be very useful if the titles are selected carefully and their series acquired in consecutive sets.

The National Diet Library exchanges government documents to some extent. It has designated the Library of Congress and the University of California at Berkeley Library as depository libraries for Japanese government publications in the States and the University of British Columbia Library in Canada. It also tries to fill requests for these publications from various other libraries. However, as there is no comprehensive national policy for government publishing and as officials in Ministries and other offices change often, sometimes it is difficult for the National Diet Library to obtain sufficient copies for its own use. The 1948 law establishing the Diet Library stipulated that Ministries were to send 30 copies of all their publications to the Library for exchange purposes. However, in practice some government offices have ignored the law or provided only samples of their publications. The library thus has been hampered seriously in execution of its exchange policy and, in order to receive essential government publications of foreign countries, has been forced to concentrate on nation-to-nation instead of library-to-library exchanges.

The problems in connection with Japanese government publications are many and enormous. No one has ever studied them exhaustively, and no one even can be sure of how many such publications there are. One reason is that there is no centralized publishing agency. Some publications are official (some of which are for sale and others not), some are semi-official, and others have official character in name only. Each Ministry and each bureau or other sub-division seems to have related organizations of its own, some for research purposes, some for publishing purposes, some mainly for the recreation of ex-officials, etc. Any of these may have a publication or publications. Kunō no Yosan (National Budget) no. 45, for example, is compiled by officials of the Budget Bureau of the Finance Ministry who formed an organization called the Zaimu Chosakai (Finance Research Society), located in the same Bureau. Its contents are based on the official report, Yansansho (National Budget) no. 43, compiled for the use of the Diet. It is published by Doyu Shobo, a commercial publishing firm which does not seem to publish other books.


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sort of publication is considered semi-official and is listed in the catalog (incomplete) of Government documents. Part of the explanation is that the Government Printing Office, under the Ministry of Finance, is far too small and weak to cope with the ever increasing number of government documents.

The best list of government publications is the section on government offices, Kankocho-hen, in the Zen-Nihon Shuppan butsu Somoku-roku (Japanese National Bibliography), no. 5 in the list. Its 1960 edition gives 5,747 titles in 7,128 volumes for monographs (3,291 titles in 4,190 volumes for central and the rest for local government offices) and 5,693 periodical titles (2,908 titles for central government offices). The drawback of this catalog is that publications are at least three years old before they are listed in it. The Kancho Shiro Tenji Mokuroku (Exhibition Catalog of Government Publications), published in 1963 by the Special Libraries Association, lists more or less important items of the previous year, 1962, 1099 titles for central government offices and 220 titles for their related organizations. Publications of related organizations are regarded by some authorities as government documents in a broad sense, and by others as not. Much depends on how they are acquired and who acquires them.

In addition to the inadequacy of listings, there are the problems of getting materials year after year on standing orders and learning about important new titles. As for the former, book dealers nowadays understand the importance of having a continuation continued, and they make considerable effort to fill standing orders. The Seiwado book dealer has compiled Sengo Nihon Nenkanrui Somoku-roku (General Catalog of Postwar Japanese Yearbooks) 1963, 309p., ¥1,500, which has a section on government annual publications listing 539 for central and 1,062 for local government offices. This is a convenient source of information for probable publication dates. As for learning about new titles and old titles not listed in the above mentioned catalogs, one must depend on Nohon shuho, a weekly, and similar periodicals and publishers' circulars and hope that they can be obtained. Perhaps one of the most effective ways is to have an agent in Tokyo who specializes in looking after such publications.

There is a bookstore called the Kancho Kankobutsu Sabisu Center (Government Publications Service Center) located near many of the major Ministry buildings in downtown Tokyo. It was started several years ago after Prof. R. Dore, the author of City Life in Japan, 1958, complained in one of the newspapers about the difficulties of going through a maze of government offices to get a document. The center is attractively equipped and keeps many items for sale and others, such as official reports not for sale, as samples. It is very accommodating if it has in stock the material one wants, but it does not go out of its way to find extra copies or titles it does not have. Nor is it staffed to handle orders from abroad in foreign languages. Within the country it takes mail orders, and might be willing to accept foreign orders written in Japanese.
REVIEWS

(Editor's note: Reviews published in this magazine have a deliberately-chosen viewpoint. That is, reviewers are asked to consider publications primarily on the basis of their meaning and contribution to the areas of our interest: the building of library collections and the absorption, care, and control of the materials comprising the collections.)


According to the authors' introduction, "the listing of terms . . . is essentially a composite of the subject indexing vocabularies used by the Atomic Energy Commission (AEC), the Defense Documentation Center (DDC), the National Aeronautics and Space Administration (NASA), and the Office of Technical Services (OTS) to index their research report announcement publications." The individual terms from lists of the four organizations are arranged in a three-level classification system (called a "common subsumption scheme"). Assignment of terms to the two upper levels has been made with great care, both in order to get the most accurate representation of usage possible and to achieve consistency. For the most part, terms are classified in a single location, though multi-group classification would have been preferred if space had permitted. It is emphasized that the terms themselves are in a state of flux, and some are not yet sufficiently shaken down in usage to make final assignment 100% certain. The index, as issued, is a provisional one. It is hoped that users will point out errors, improvements, inconsistencies, and desirable changes in terminology or organization so that a more complete index may be published later.

The index itself consists of two volumes. The first is an alphabetical listing by terms and cross-references. The indexing terms range from single words to sets of words indistinguishable from standard subject headings. Scope notes or other descriptive matters are omitted except where absolutely necessary to differentiate among terms. Inverted headings and terms with parenthetical definition appear frequently. Cross-references are of the "see" ("use") type. They may be grouped thus: MULTIMET SEE CHROMIUM-COBALT - IRON - MOLYBDENUM - NICKEL ALLOYS [AEC] which means consult CHROMIUM ALLOYS, COBALT ALLOYS, IRON ALLOYS etc., or as MUSCULAR TRAUMA USE MUSCLES AND WOUNDS + INJURIES [DDC] which means look under the two headings MUSCLES and WOUNDS + INJURIES. With the limited type font used in the index, a comma rather than AND would have made the latter clearer.

Reflecting the hybrid nature of the vocabulary, some words are entered both straight and inverted: DESOXY-RIBONUCLEIC ACIDS [DDC], RIBONUCLEIC ACID, DESOXY-[AEC]; individual terms may be singular or plural: PEROXIDE [NASA],

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PEROXIDES [AEC, DDC]; a term such as OYSTERS [AEC] may be followed by another rejecting its use: OYSTERS USE PELECYPODA [DDC]. One of the most interesting features of the vocabulary is the infrequency with which the same term is used by more than one of the four organizations. This suggests either that the terms are being taken directly from the papers indexed, with subsequent variation as authors vary in their choice of words, or that each of the four organizations is indexing a field which has its own internal and separate vocabulary. Qualitative studies should be undertaken to answer the first question. Quantitative studies already under way may answer the second.

The second volume displays the classification used in making the index. The whole index vocabulary is divided into 18 main classes called "fields" and 203 sub-classes called "groups". Individual terms and cross-references are then arranged alphabetically under these groups. In both volumes there is a code with each term to show field, group, and which of the four organizations uses the term. A "T" or "R" is given under each organization's code designation to indicate whether the heading is an index term or a cross-reference, though this is quite evident from the context. It probably is there for statistical purposes.

The authors have performed a most useful function in placing the four indexing systems in juxtaposition. The obvious next step is to reconcile the differences between them, boil down the synonymous terms into something more efficient, and produce a single, unified list which will do the standardization job of subject entry for scientific and technical report literature that is now done for books with the Library of Congress subject headings list.

The format is the usual upper case data processing equipment print style and, with the exception of the cross-reference type mentioned above, is perfectly clear. The English in the introductory sections of the work leaves a great deal to be desired. It is not unusual to find a sentence such as: "Significant term usage associations within the group structure are being generated as an aid in validating both the structuring and arrangement of the scheme itself." This simply means that relationships between terms are being studied statistically to check the accuracy of the index arrangement. Why not say so?—Phyllis A. Richmond, Supervisor of River Campus Science Libraries, University of Rochester Library, Rochester, New York.


This technical compilation of specialized librarians' vocabulary, although limited in scope to not more than 400 basic words in each language, should prove most helpful to the cataloger, serials librarian, and bibliographer. Dr. Pipsics, of the National Széchenyi Library, Budapest, is the compiler and editor. The simplicity of its compression, covering a basic list of 300 most frequently used terms, plus numbers, months, and days of the week, (making a total of 400 words) distinguishes this book from other glossaries of diverse languages.

The scope of its vocabulary encompasses terms applicable to cataloging and bibliographic compilations. Here may be found the equivalent word or phrase in twenty languages for such terms as "compile," "summary," "table of contents," "treatise," "journal," "novel," "play," "supplement," and others of similar nature encountered on title pages or citations. Words such as "cost," "price," or "sale," which are
found in Jerrold Orne's *The Language of the Foreign Book Trade* (Chicago, A.L.A., 1962) are not included here. The latter is aimed at the needs of the bookseller and acquisitions librarian, while this book is definitely planned for the cataloger.

Although intended for Hungarians primarily, the material, organized in two sections, is arranged so that anyone knowing one of twenty languages can use the dictionary easily. The first section consists of nineteen separate language alphabets, serving two functions. Each word is translated from its original language into Hungarian, followed by an index number to Section II. For the non-Hungarian, Section I is of value mainly as an index to Section II which translates and defines the words needed.

The second section, comprising one third of the book's contents, contains the material most useful to the searching librarian. All the terms included are arranged alphabetically by the Hungarian word. Nineteen other language definitions are arranged in adjacent columns, five languages to a page across four pages. Index numbers appear at the left and right of each facing page. Many words include variants and synonyms. Since the type is clear and the spacing generous, no difficulty is encountered in finding the particular language equivalent needed. The fact that the English column is placed next to the initial Hungarian helps considerably. The meaning and spelling of each term is included for the following twenty languages: Hungarian, English, Bulgarian, Czech, Danish, Finnish, French, Greek, Dutch, Croatian, Latin, Polish, German, Italian, Russian, Roumanian, Spanish, Swedish, Serbian, and Slovakian.

A particularly valuable aspect of this dictionary is the inclusion of both Roman and native alphabets for four of the languages: Greek, Bulgarian, Russian, and Serbian. Thus, terms otherwise elusive can be defined and transliterated easily with this tool.

An appendix continues the format of the second section, presenting the twenty language equivalents of the months and days of the week, and also such terms as "quarterly," "weekly," "monthly," etc.

A comparable book is the previously-mentioned one, Orne's *The Language of the Foreign Book Trade*, with its greater range of approximately 1,000 definitions per language. He has defined terms in eleven languages, but there are no transliterations for the original Russian. He does not include Finnish, Croatian, Latin, or Roumanian which do appear in the *Dictionarium*. Since Orne defines from foreign to English only, it could not be used to find the foreign equivalent of an English word. With the *Dictionarium*, one can use the English dictionary section to find the correct spelling and form of any word listed in the other nineteen languages charted.

For the most commonly-needed library terms in the five major languages—English, French, German, Spanish, and Russian, Anthony Thompson's *Vocabularium Bibliothecarii*, 2d ed. (Paris, Unesco, 1962) is still unsurpassed for complete coverage and ease of use. Its indexes, its subject grouping of related terms, and its inclusion of over 2500 words for each language make it a primary source of information. Russian, however, is not transliterated. The *Dictionarium*, though narrower in content, covers fifteen languages not included in the Thompson work. Polish, Czech, Hungarian, Finnish, Latin, and Danish are among them. Thus the *Dictionarium* supplements this book particularly for Slavic and Scandinavian language areas.

This *Dictionarium* does not supersede either the Orne or Thompson work, but is rather a valuable supplement to both.—Alice F. Kaufman, Documents Librarian, State University College Library, Potsdam, New York
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