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Library Resources & Technical Services, the quarterly official publication of the Resources and Technical Services Division of the American Library Association, is published at 1201-05 Bluff St., Fulton, MO 65251. Editorial Office: American Library Association, 50 E. Huron St., Chicago, IL 60611. Advertising Traffic Coordinator: Leona Swiech, Advertising Office, ALA Headquarters, 50 E. Huron St., Chicago, IL 60611. Circulation and Business Office: Central Production Unit/Journals, ALA Headquarters, 50 E. Huron St., Chicago, IL 60611. Subscription price: to members of the ALA Resources and Technical Services Division, $7.50 per year, included in the membership dues; to non-members, $15.00 per year; single copies $4.00.

Second-class postage paid at Chicago, Illinois, and at additional mailing offices.

LRTS is indexed in Library Literature, Library & Information Science Abstracts, Current Index to Journals in Education, and Science Citation Index. Its reviews are included in the Book Review Digest, Book Review Index, and Review of Reviews.

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Romanization Reexamined

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Present and likely future developments demand a critical reexamination of romanization in library cataloging. Romanization is asserted to be a problem-laden undertaking necessary for the universal author/title catalog but without other merit. Abandonment of the universal author/title concept is recommended in favor of separate catalogs according to writing system, with headings appropriate for the system. The universal subject catalog should be retained; systematic romanization is not required for this catalog.

ROMANIZATION, THE REPRESENTATION IN ROMAN LETTERS of names and words originally written in some other writing system, has been an important concern of librarians in the Anglo-American library community for many, many years. The Anglo-American code of 1908, compiled by committees of the American and British library associations, contains an "Appendix 2" in which eight pages are devoted to this matter. These eight pages exceed 10% of the 61 pages devoted to the rules themselves. The first item in the appendix is a report given in 1885 by an ALA Transliteration Committee. This report, signed by C. A. Cutter, C. B. Tillinghast, W. C. Lane, and Michael Heilprin, recommends adoption of the general principles that had been recently set forth by the Royal Geographical Society with respect to roman orthography in transliteration systems. Generally stated, these were to use consonants with their English values and vowels with their German or Italian values, principles that have dominated Anglo-American romanization systems for libraries ever since. Also included in this appendix are specific tables for Semitic languages, furnished by Professor C. H. Toy of Harvard University, a table for Sanskrit, furnished by Professor C. R. Lanman of Harvard University, a table for Slavic Cyrillic languages completed by an ALA committee in 1900, and tables for Russian and modern Greek used by the Library of Congress.

It is 68 years since the 1908 rules appeared and 91 years since Cutter's committee issued its report. The long interim, particularly the years

Manuscript received March 1976; accepted for publication May 1976.
from the mid-fifties to the mid-seventies, has seen extraordinary progress in the development of romanization systems for American libraries, largely through the close cooperation of experts at the Library of Congress (LC) with experts drawn from the membership of the Association for Asian Studies and, frequently, of the American Library Association (ALA) as well. As of now, complete LC/ALA approved systems have been issued for 34 languages and abridged transliteration tables have been completed and approved for some 67 non-Slavic languages of the Soviet Union.

In 1976, however, the following on-going or imminent developments have had or will have significant bearing on matters of romanization:

1. We are in the midst of preparing a second edition of the Anglo-American Cataloging Rules.
2. LC tells us it will be starting a new catalog with a clean-slate catalog heading system at the end of this decade.
3. The day is just around the corner when non-roman-alphabet entries will be fed into the MARC computer store.
4. The International Federation of Library Associations (IFLA) project for the development of Universal Bibliographic Control (UBC) with its fundamental objective of national production and distribution of universally acceptable bibliographic records for all current national imprints bids fair to demand international acceptance and implementation in the near or mid-future.

All of these significant developments indicate that the time is not only ripe but perhaps critical for a reexamination of our policies with respect to romanization. Are we to follow the way of the past and the present in the on-coming future?

Perhaps you are saying at this point: "Of what concern are matters of romanization to me? My responsibilities do not involve collections of non-roman-alphabet materials. Romanization is a matter for specialists." If this is your reaction, consider this development—at its meeting in February 1976 the Joint Steering Committee for Revision of AACR, the committee that is making the final decisions, approved the adoption of the romanization systems of the International Organization for Standardization (ISO) for use in the headings of examples that will appear in the second edition. Under the ISO system for Cyrillic, the transliteration of "Tchaikovsky" would begin with the letters "Caj." Do you still feel that romanization is of no concern to you? My purpose here is not to campaign against a particular decision of the joint committee, but rather to reexamine the basis of our present practice with respect to romanization in an attempt to convince you that we have been on the wrong track all along and that a radical change is needed.

Since it is true that most librarians do regard romanization as far afield from their primary concerns, let me preface this paper with a general exposition of the principal features of the problems in this field as necessary background. Please note that the last sentence refers to "librarians," not "catalogers." This is because the issues here dealt with are
of even greater concern to reference services librarians than they are to catalogers.

“Romanization” is the general term for any method which converts names or text written in a non-roman writing system into the letters of the roman alphabet. There are two principal methods by which this may be accomplished. One is transliteration, whereby romanization is accomplished letter-by-letter according to a table which equates each of the letters of the original (non-roman) alphabet with one or more letters, or letters plus diacritics, of the roman alphabet. The other system is phonetic or phonemic transcription, whereby romanization is accomplished by spelling the proper spoken sound of the name or word as closely as possible according to the orthography of a given roman alphabet language, e.g. English. Needless to say, these methods yield quite different results and, in the case of phonetic transcription, quite different results within the same method, depending on the object language that is used (e.g. English or French).

Let us look a little closer at transliteration as a method. This has always been the preferred method in our practice. It is considered to be more scientific, less subject to aberrations in results, and, when conditions permit (which is not often), it allows reconversion to the original written form. This capability can be of considerable use in the verification and positive identification of romanized names. What are the problems with this method?

First, it is necessarily limited to languages with alphabetic or syllabic writing systems. That necessity automatically excludes languages such as Chinese and Japanese which use word-characters that do not represent any sound, alphabetic or syllabic.

Second, it has been used only to a limited extent for languages that normally express only the consonants and leave the vowels unexpressed, because these will be understood by readers who speak the language. For such languages, e.g., Hebrew, Yiddish, Arabic, Persian, and Urdu, the present systems of “transliteration” transliterate the written consonants but additionally require the insertion of the unwritten vowels according to usage in speech, as recorded in dictionaries. The theoretically possible device of transliterating just what is written, namely the consonants, on a one-to-one basis has been too much for even strong supporters of transliteration to swallow.

Third, there is the problem of the phonetic system to be followed in choosing the roman letters to stand for the letters in the original language. Vowels have presented fewer problems than consonants because of the general consensus that roman vowels should be used with their Italian sound values. Even here what is to be done if the original alphabet has three different letters for what is sounded as an Italian è? Even after we draft y (in its vowel value) into use we are left with one more choice to make. Solutions to problems such as this have generally been achieved by the use of diacritical marks, e.g., ĕ or ī. The real trouble, however, comes with consonants. For example: the roman j is in use for
the following sounds: \( dj \) (as in English), \( zh \) (as in French), consonantal \( y \) (as in German), \( h \) (as in Spanish), and \( ee \) (as in Croatian). If the language to be transliterated has letters representing any or all of these sounds, which should be transliterated by the roman \( j \)? Another example: the combination of the letters \( c \) followed by \( h \) indicates the sound \( tch \) in English, \( sh \) in French, and \( k \) in Italian. Further, if \( c \) is used as the transliteration of one letter in the subject language and \( h \) as the transliteration of another, how is one to transliterate a third letter with a \( tch \) sound without introducing ambiguity into the system?

All of which is simply to illustrate that the phonetic values of the letters of the roman alphabet have about as much firmness as sponge rubber and are as riddled with ambiguities as a Swiss cheese is with holes. The normal solution to this problem has been to base transliteration systems on the set of consonant values of the roman alphabet in a particular language, in Anglo-American usage, English.

This solution to the third problem leads directly to the fourth: the proliferation of different romanization schemes for a given non-roman alphabet language.

This proliferation is not confined to differences resulting from different choices in the object roman alphabet language to be used for sound values, but also occurs among schemes based on the same choice of object language. For example, for Russian we have the LC/ALA scheme which is almost universally used in our libraries but is almost never used anywhere else; we have the Royal Society/British Institution scheme,¹ which is used most widely for Russian citations in English-language publications, and we have the [British] Permanent Committee on Geographic Names/[American] Board on Geographic Names scheme. Each of these is different. Over and beyond all this, there are the international schemes, few in number (including Slavic Cyrillic, Hebrew, and Arabic) but endowed with the magic powers of the words “international” and “standard,” concepts that predictably will increasingly govern our affairs. In the case of Russian, ISO has cut the Gordian knot of roman alphabet ambivalence by opting for Croatian values for the Cyrillic letters, a choice with the great merits of achieving exact one-to-one equivalence of letters using only standard Croatian roman letters and diacritical marks and of basing the scheme on a living language (Serbo-Croatian) which is written in both alphabets, Croatian in roman, and Serbian in Cyrillic. These merits were achieved, however, at the expense of roman alphabet sound values that are quite “foreign” to all the world of roman alphabet users except those in Eastern Europe. This is where our old friend Čajkovskij reappears. Recognize him behind his Croatian cloak?

This proliferation of romanization systems for the same subject language has meant that bibliographic citations to the names of particular writers may be found in a variety of different roman spellings. How is the reader to match the cited spelling with the heading in a library catalog when they may differ in important respects?
Perhaps at this stage your inclination is to cry “Hold, enough.” But no, not quite yet. Perhaps there are some who think that romanization by phonetic transcription may have fewer pitfalls. Consider Chinese and Japanese where we have no other option. In the case of Chinese there are many different dialects necessitating a choice for romanization purposes. In our present Wade-Giles system Mandarin or Peking area pronunciation was chosen. This should be very acceptable and authoritative but it is an unfortunate fact that relatively few Chinese catalogers in American libraries are knowledgeable in this particular dialect. Consider also that a man whose surname we may best represent as Shih may write his name with any one of four different characters. People using any one of these characters are perfectly distinguished from the others to any reader of the original Chinese but they are all represented in the same way in our catalogs. Further, the People’s Republic of China has its own official romanization system which, as you may already have guessed, is different from ours.

In the case of Japanese we have the reverse of the problem of Chinese characters for surnames. A given character may have several “readings.” These readings may be as dissimilar as night and day. There is no way of knowing what “reading” is correct for a person using one of these characters for his surname except from a reference source or a written or oral statement by the person. Thus, if the American cataloger cannot determine the reading, one must be chosen for the heading purely on the basis of best guess. Yet the character itself is perfectly accurate and sufficient for cataloging purposes. Also, once again, the government of Japan has its own official system for romanization, one that displays some highly unusual concepts of roman consonant values.

Now, have I convinced you that romanization is a can of worms? Is there any way out of this quagmire other than surrendering some of our favorite composers and others to the ISO Croatian connection? Yes, there is a way out, at least in the sense of cutting the problem down to a minute fraction of its present size.

First, let me ask a simple question: “Why do we romanize?” I’m sure we can all agree on the answer: “To make it possible to enter a name or title not written in the roman alphabet into our catalog which begins with roman A and ends with roman Z.” Now a tougher question: “Do we do this for the filer, or the reader, or for both?” Certainly we do it for the filer. How else can he dispose of a name or title that is not in roman letters? But do we do it for the reader? Certainly not for the reader who is competent in the writing system in point and who is the reader most likely to use the book. Any romanization we use is at best an inconvenient hindrance and at worst a severe stumbling block between the reader and the book.

If this is so, then the next question must be: “Why romanize for filers if this inconveniences readers?” How do we answer this except to say “Because any other course would be contrary to our concept of the universal catalog.” Aha! Now we have it. The “bottom line” of catalog-
ing non-roman alphabet materials: the universal catalog. The catalog in which all items in the collection are entered in a single alphabet from A to Z, regardless of language, regardless of form, regardless of subject. The American ideal.

The Library of Congress has subscribed to this concept but with some qualifications. Its main catalog is quite inclusive, but consider the materials which are not included: music scores, manuscript collections, maps (except for some references), motion pictures, pictures, prints, etc. Not so universal after all. Are there any large research libraries that maintain an absolutely universal catalog?

For a moment let us depart from our European, roman-alphabet world and consider what happens in countries where the national writing system is not the roman alphabet. If it is such a great thing for us to romanize our non-roman records, wouldn’t you think it would be equally great for the Russians, say, to Cyrillicize their non-Cyrillic records? Yet I seriously doubt that it would ever even occur to a Russian librarian that roman-alphabet entries should be Cyrillicized. In the Soviet Union roman alphabet entries are uniformly confined to their own catalog. In fact, I have never heard of any library in any country where the roman alphabet is not used that converts roman-alphabet entries into its own national writing system. So what is this mystique about romanization? We seem to be alone in feeling a need to represent names from other writing systems in our own writing system.

Perhaps by now you will have perceived that when you get down to fundamentals the business of romanization takes on an Alice-in-Wonderland character. Let me ask this simple question: Why should author and title entries for

Yamada, Bukichi. 草莽文叢
al-Yâzîjî, Kamâl. ﺍﺑو العلاء
Yeats, William Butler, 1865–1939. The Celtic twilight
Yefroikin, Zalman. ﻷدام ﻻووبردنج١۳۷۳ واژا

be filed in a single alphabet? What reader would be mis-served if these entries were separated according to the writing system of the publications? I submit that the answer is “no one.” And yet we unthinkingly continue to accept the universal catalog, as though it were somehow established by divine decree.

So let me be the heretic who says “Balderdash! The universal catalog (so far as author and title entries are concerned) is a snare and a delusion.” Our readers of non-roman-alphabet materials would be much better served by separate catalogs of author and title entries in the writing systems they read than they are now by a unified catalog that requires them to figure out what cabalistic transformations into roman letters have been made of the names and titles they could otherwise have found so easily.
Recommendation 1: The Author/Title Catalog

Abandon romanization of headings in cataloging a work written in a non-roman writing system. File such a catalog record in a catalog consisting of author and title entries for publications in the given writing system, with headings in the same system. If the national systems of sequencing the written symbols of the writing system are different (e.g., as in the case of Chinese and Japanese) separate catalogs by language may be required. (It must be admitted that the innate problems of sequencing Chinese characters are so great that romanization of headings and titles may continue to be the preferable solution.)

What would be accomplished by this action?

1. We would provide superior library service to readers seeking materials in non-roman writing systems by making these materials easily findable in our catalogs, having removed the confusing barriers of romanized headings and titles. If we agree with Ranganathan's Second Law of Library Science, "Every reader his book," we ought to make this change for these readers.

2. The recommendation provides the best solution, indeed the only feasible solution to the upcoming major confrontation with the forces of internationalism with respect to romanization. *Item:* The Joint Steering Committee for Revision of AACR has already opted for ISO romanization systems when available, for use in examples. *Item:* The ISO systems currently available are for Slavic Cyrillic, Hebrew, and Arabic. These three systems are not the same as the corresponding systems of LC/ALA, the British Library, the American National Standards Institution, and PCGN/BGN. *Item:* A complete change in transliteration system in the same catalog would result in intolerable confusion. The problem of different spellings or headings would be bad enough but different spellings of the words in titles would be beyond control. *Item:* If LC closes its catalog and starts anew at the end of this decade, research libraries using LC services will probably have to do likewise. That will probably be the only time within our lifetime that a change in romanization systems can be considered. Ergo, the romanization bullet must be bitten between now and then. *Item:* By that time ISO may well have adopted romanization standards for other languages, particularly Chinese and Japanese. If so, ISO will probably opt for the national systems of those countries. Then we will be faced with additional ISO systems that disagree with those we are using. *Item:* When we start a new catalog are we willing to start a new universal author/title catalog in which new romanization systems, different from those used in the old catalog, are used, thereby doubling the present obstacles between readers of these materials and their books?

3. The recommendation is highly in the interest of international cooperation and Universal Bibliographic Control. It treats writing systems on an equal basis without the implications of superiority of the roman alphabet implied by the very process of romanization. It opens up for the first time the possibility of direct interchange of headings, as well.
as bibliographic descriptions, between national bibliographic or cataloging agencies, even when different writing systems are involved.

**Recommendation 2: The Subject Catalog**

The alphabetical subject catalog is the catalog in which the concept of universality has real significance. The idea of a comprehensive display of the records for all of the materials in the library's collection according to their subject matter without regard to their language or form is viable and should be preserved. How can this be done if non-roman-alphabet entries are not romanized? The solution with respect to topical headings is quite simple and straightforward. All that is required is agreement on a set of arbitrary numbers to be used to denote the different non-roman writing systems (or, when required, languages) that must be accommodated. The subject headings assigned to non-roman-alphabet records will have the appropriate number appended as the last element of the heading. This will automatically result in grouping, under a given heading, first the roman alphabet records, and then any non-roman-alphabet records grouped together by writing system (or language) according to the number assigned to the latter. The non-roman entries would be subarranged just as the roman ones are, i.e., according to the standard sequence of the letters of the particular alphabet involved, and according to the general filing rules of the library.

With respect to non-roman-alphabet names of persons and corporate bodies used as subject headings, a roman-alphabet form should be established according to the criteria below, given in order of preference:

1. An established form found in English-language reference sources, editions, and translations.
2. The form already established in the presently existing catalog.
3. The form resulting from romanization according to
   a. the ISO system, if any,
   b. the LC/ALA system.

In all cases there should be references from varying forms resulting from ISO or LC/ALA romanization systems.

It should be noted that these names would be part and parcel of our English-language subject heading system and that consequently their forms are irrelevant to demands for international conformity.

**Recommendation 3: Translations and Added Entries**

The names of authors whose works in non-roman-alphabet writing systems are translated into roman-alphabet languages should be presented according to the same criteria as are listed above for such names as subjects. The same principle applies in roman-alphabet cataloging for secondary entries for names or titles not written in the roman alphabet. When the result does not conform to ISO romanization standards the claim of failure to follow international principles may be made. To this I would say that for a translation of Shakespeare into Russian we may be sure the surname will be spelled in any library of the Soviet
Union with seven Cyrillic letters, which we might transliterate as "Shekspir" (LC/ALA system) or "Sekspir" (ISO system), a spelling that is far removed from the eleven letters of the original. Now this will be contrary to no international standard since there is none for Cyrillicization, Arabization, nor any other -ization except romanization. If Russians may use Sekspir for our beloved Will, we should be able to use Tchaikovksy for their (and our) beloved Peter Ilyich. What is sauce for the Cyrillic goose should be sauce for the roman gander. Uncomfortable strictures should not be laid upon library users in countries that use the roman alphabet when comparable strictures are not laid upon library users in the rest of the world.

What of names that occur in non-roman-alphabet cataloging that belong to some other writing system including roman? The Arabic name that must be handled in a Hindi publication? The Russian name that must be handled in a Hebrew publication? The French name that must be handled in a Ukrainian publication? In each of these cases I would establish the name in the writing system of the publication according to the following criteria, in order of preference:

1. As found in standard reference sources in that writing system.
2. The form found in the book being cataloged.

Headings for composers of music constitute a special case. Whereas authors write in a particular language which is expressed in a particular writing system and which is comprehensible only to users of that language and writing system, composers write in a totally international language, musical symbols. The composer's native linguistic language and linguistic writing system are irrelevant matters to musicians who seek his music. In all of our music libraries the names of composers will be sought under the roman forms of their names as they appear over and over again in roman alphabet editions of their works, in concert programs, in musical reviews, and in English language reference sources. Their musical compositions should be entered in the music catalog under the form found in the reference sources cited above. Subject entries should appear under the same heading in the subject catalog. Any other entries should appear under the approved heading in the writing system of the publication being cataloged.

If it should be asked how authority control in the case of names in non-roman-alphabet languages can be maintained, I would say that the authority control should be located in the catalog which uses the native writing system and should record any forms of name adopted for catalogs in other writing systems. A see-also reference should be provided in the catalog of the native writing system to all forms used in other catalogs. Variant forms found in any given writing system should appear as references in the catalog of that system.

Conclusion

You may agree or disagree with my recommendations or agree with some and disagree with others. What is important, however, is that the
Library of Congress, the National Library of Canada, the British Library, and all the research libraries and other libraries with collections of non-roman-alphabet materials in the Anglo-American community should be aware that a critical hour of decision is fast approaching in the matter of romanization policy. Discussions on the issues involved are urgently needed. A consensus must be achieved so that when the hour of decision arrives a well thought-through decision may be made.

REFERENCE

1. About to be published by the American National Standards Institute as an ANSI standard.
PRECIS: the Preserved Context Index System

DEREK AUSTIN
and
JEREMY A. DIGGAR
Subject Systems Office
The British Library

PRECIS: the Preserved Context Index System was originally developed by the British National Bibliography to provide subject index data for UK/MARC records, and to produce an alphabetical subject index for the national bibliography. The present potential of the system extends beyond these initial objectives.

The processes involved in index production are divided between the indexer and the computer: the former undertakes those tasks which require human judgments; the latter carries out clerical operations which are entirely mechanical.

Index entries in PRECIS have been planned with certain user criteria in mind: in particular, comprehensibility and co-extensiveness. Basic research suggested that these could be achieved if entries were constructed according to the principle of “context-dependency”: that is, if each term in the entry sets the next term into its obvious context. Entries constructed in this way are generated by a computer from input strings of terms and instruction codes written by the indexer. The rules governing the preparation of these strings comprise the syntax of PRECIS, and are embodied in a schema of role operators. Reference Indicator Numbers (RINs) are also appended to strings; these numbers lead to the extraction of appropriate See and See also references from a machine-held thesaurus. The creation and use of this thesaurus constitutes the semantic side of the system. In addition to its semantic and syntactic components, PRECIS has a facility, known as the Subject Indicator Number, which provides an economical means for dealing with “repeat” subjects.

Introduction

PRECIS (PREserved Context Index System) IS ESSENTIALLY A SYSTEM for producing printed alphabetical subject indexes, generally (but not invariably) with computer assistance. By “printed index” is meant an index in page format, whether the pages are sheets of paper or, as is becoming increasingly common, frames on a microform or a dis-
play on a computer terminal. PRECIS is usually presented as a two-stage index: that is, one in which each entry is followed by one or more addresses (e.g. classmarks or accession numbers) which indicate the position of the relevant catalogue entries in a separate file.

Since PRECIS, in common with other mechanised indexes, involves the creation of machine-readable data, the system has an obvious potential for mechanised searching. We do not intend to discuss this possible application, however, for the following reasons:

(a) Conventional strategies for machine searching, e.g. Boolean and weighted term searching, are not specific to PRECIS. These techniques are well known, and apply to machine searching in general. Nevertheless, some interesting experiments in this area have been conducted by Balnaves and by Wainwright and Hills.2

(b) In Boolean and weighted term searches, all indexing data are treated as sets of uncoordinated keywords. In such a context, a knowledge of the logical relations and pre-coordination of PRECIS would be irrelevant.

This does not mean that a PRECIS file is not suitable for machine searching, but rather that more appropriate search techniques may need to be devised if the full potential of the system is to be realised. This problem is currently under investigation by the British Library.

**Background**

In 1968, when the *British National Bibliography* (BNB, now part of the Bibliographic Services Division of the British Library) became involved in the UK/MARC (MACHINE Readable Catalogue) Project, a need arose for an indexing system with certain characteristics. It was stipulated that the system should be:

(a) capable of providing co-extensive subject indexing for each document in the MARC database.

(b) amenable to computer manipulation, so that the alphabetical subject indexes to the printed issues of the *British National Bibliography* could, like the catalogue entries, be produced directly from the UK MARC tapes.

None of the existing MARC fields holding subject data (e.g. title, Dewey Classification (DC) classmark, Library of Congress (LC) classmark, Library of Congress subject headings) appeared capable of providing a satisfactory index to BNB. The decision was therefore taken to develop a new "tailor-made" system. In retrospect, this may seem a bold decision; the development of a new indexing system must involve a large investment in terms of time, money and staff; even then, success is by no means guaranteed. In the event, however, the venture proved successful, to the extent that, in January 1971, BNB was able to adopt a prototype version of a new indexing system called PRECIS. From the date of its adoption to the end of 1973, the system was applied to nearly 100,000 documents. During this same three-year period, further re-
search into the system was conducted with aid from the Office for Scientific and Technical Information (now the Research and Development Department of the British Library). This research, together with the practical experience gained with the prototype system, led to the design of a new and improved version of PRECIS\(^3\) which became operational in January 1974. PRECIS has now been adopted by a number of indexing agencies, and is used to produce indexes to a wide range of media (See Figure 1).

1. Indexes to on-going catalogues and bibliographies
   (a) Indexes to monographs, e.g. British National Bibliography, Australian National Bibliography
   (b) Indexes to audio-visual materials, e.g. Audio-Visual Materials for Higher Education (British Universities Film Council); Film Catalogue (College Bibliocentre, Don Mills, Ontario)
   (c) Indexes to library catalogues, e.g. the subject index to the catalogue of East Sussex Libraries

2. Pilot projects
   (a) An index to scientific report literature in all fields
   (b) Indexes to public records
   (c) An index to monographs and microdocuments (journal articles, reports, etc.) on housing
   (d) An index to musical scores and monographs on music
   (e) An index to research projects in the field of environmental studies

3. Experimental indexes produced during the development of PRECIS
   Indexes to microdocuments in the fields of sociology of education, horticulture, dairy science, education, management, library science and physics

Figure 1
Examples of Past and Present Applications of PRECIS

Division of Labour in Index Production

Figure 2 shows a typical set of PRECIS index entries and references, taking as an example an imaginary document on “The training of personnel in India’s cotton industries.”

It should be emphasised at the outset that the indexer does not write the entries and references shown above. These would be generated by the computer from a single input record prepared by the indexer. This input record contains the following data:
   (a) a “string” of terms which summarises the subject. This string also contains codes which function as instructions to the computer and regulate the manipulation of terms into index entries.
   (b) the address (e.g. a classmark or accession number) to which the index entries will refer.
   (c) numbers which instruct the computer to extract, from a machine-held thesaurus, the See and See also references appropriate to the terms in the string. These numbers are known as Reference Indicator Numbers (RINs).
Entries

India
  Cotton industries. Personnel. Training
Cotton industries. India
  Personnel. Training
Personnel. Cotton industries. India
  Training
Training. Personnel. Cotton industries. India

References

Asia
  See also
    India
Industries
  See also
    Textile industries
Textile industries
  See also
    Cotton industries
Employees See Personnel
Labour See Personnel
Staff See Personnel
Workers See Personnel
Manpower
  See also
    Personnel
Education
  See also
    Training

Figure 2

PREFCIS Index Entries and References

(d) a Subject Indicator Number (SIN) which uniquely identifies the position at which all these indexing data will be stored for future use in a machine-held file.

The system is therefore based upon a division of labour between the indexer and the computer which ensures that each of these components, the human and the mechanised, is used to its best advantage. Indexers, as rational beings, carry out those tasks which require human judgment —i.e. deciding what a document is about, writing a string which summarises this subject, incorporating instruction codes to ensure that the correct entries are generated, and adding RINs to call up references. The computer, as a high speed data processor, then implements these human decisions. Given a batch of indexing records, it will generate all the indicated index entries and references, sort these into a single alphabetical sequence and generate a magnetic tape which can be used to control a phototypesetting or other output device. This use of the computer significantly reduces the clerical drudgery involved in index production

* 16 *  

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a short string may produce several index entries, while a single RIN is sufficient to call up an entire hierarchy of references leading to a given term.

As an aside it is worth noting that although PRECIS was conceived from the outset as a computer-assisted system, it can also be carried out manually and, indeed, a number of indexes have been produced in this way. Throughout the following account, however, computer assistance has been assumed.

Context Dependency

In practice the first steps consist in examining the document, establishing its subject content, then summarising this as a string of terms and instruction codes. While carrying out these tasks, the indexer needs to keep the following factors in mind:

(a) an entry can be made under any term likely to be sought in a string.
(b) each entry should be intelligible, and it should state the subject unambiguously.
(c) entries should be consistent in structure, so that they collocate with those produced from other strings on similar themes.

Experience has shown that the important criteria listed as (b) and (c) above can be met most effectively if the order of terms, in an input string, and also in an index entry, is founded on the principle of "context dependency." This principle was, in fact, applied to the compound subject used earlier as an example (Figure 2). This subject can be represented as follows:

```
India > Cotton industries > Personnel > Training
```

where the symbol > indicates a direct relationship between adjacent terms, the term preceding the symbol setting the following term into its wider context.

To understand how the principle is applied, each pair of adjacent terms can be considered in turn:

(a) "India" establishes the location of "Cotton industries," i.e. the author's concern is with the cotton industries of India.
(b) "Cotton industries" names the whole system of which "Personnel" are a human part or component, i.e., discussion is focused upon the personnel of the cotton industries.
(c) "Personnel" functions as the object of the action "Training" and, as such, specifies a type of training (i.e. training of personnel).

Since the string of terms shown above has been organised into a context-dependent sequence, it could function as an index entry in its own right without any need for further manipulation. It presents the subject in summary form, and the terms are set down in a comprehensible order. This would, however, produce only an entry under the first term, i.e. "India." We cannot apply this straightforward approach if we wish to construct an index entry under one of the middle terms in the string, e.g.
“Personnel.” We could, of course, apply a straightforward KWOC technique (Keyword Out of Context) and transpose this term to the beginning of the entry, e.g.:

**Personnel.** India. Cotton industries. Training

Unfortunately, however, the entry then becomes ambiguous—it is not now entirely clear whether the “Personnel” are being trained or are employed in training others. This ambiguity arises from the fact that terms which were directly interrelated in the original string are no longer adjacent; the links between them have, in fact, been broken, so that the eye now perceives links which were not intended by the indexer.

This particular problem could be resolved by retaining the original order of terms, but applying a KWIC technique (Keyword In Context). In this type of index the filing of entries is carried out in the centre of the page, e.g.

<table>
<thead>
<tr>
<th>Filing column</th>
</tr>
</thead>
<tbody>
<tr>
<td>India. Cotton industries. Personnel. Training</td>
</tr>
</tbody>
</table>

This form of presentation would allow us to retain the original context-dependent order, but at the cost of a rather cumbersome entry format which is often highly wasteful of space.

A more elegant solution, the one employed in PRECIS, is to adopt a two-line entry structure:

**Personnel.** Cotton industries. India

Training

This entry format allows us to indicate the simultaneous relationship of the term “Personnel” to: (a) terms of “wider” context, e.g. “Cotton industries” and “India”; (b) any terms of “narrower” context, e.g. “Training.”

The example of an entry shown above demonstrates the three named parts of a PRECIS entry (Figure 3):

```
  LEAD  Qualifier
    Display
```

**Figure 3**
The Parts of a PRECIS Index Entry

The “Lead” is the term which functions as the entry point for the user; this is printed in bold face to emphasise its significance as the primary filing element. The “Qualifier” consists of terms which, seen from the viewpoint of the Lead, are of successively wider context. The “Display” contains terms of narrower context. The qualifier and display positions are not necessarily occupied in all index entries.
Variations in Entry Format

Entries of the type shown above can be produced mechanically from any string in which terms are set down in a context-dependent order. The string which serves as the source of these entries can be visualised as a vertical sequence of terms:

- India
- Cotton industries
- Personnel
- Training

Let us assume that each of these terms is required as a lead. The entries shown in Figure 2 can then be produced by applying the simple algorithm shown in Figure 4; this generates a set of entries in what is known as the "standard format."

In some cases the terms in a string may be related in such a way that, in order to maintain context-dependency, one or more of the entries has to be formatted in a somewhat different (i.e. "non-standard") way. Figure 5 shows a string in which one entry, that generated under the term "Floods," calls for a special format. This is produced by a routine known as the "predicate transformation." The first three entries generated from this string are completely "standard," i.e. they were produced by the algorithm shown in Figure 4.

The fourth entry is, however, different, insofar as the two terms earlier in the string, i.e. "Damage" and "Crops," have been assigned to the display, not printed in the qualifier. This is, nevertheless, a logical order, since the location "India" functions as the wider context of both "Crops" and "Floods."

It is worth pointing out that the indexer did not need to take any special steps to ensure that this special format would be produced. When the term "Floods" came to the lead, the computer detected the need for the predicate transformation by "reading" the operator "3" preceding the term, and noting that the name of the agent follows an action introduced by the operator "2." These numbers identify the "roles" which are used to signify the grammatical function of the term in the subject as a whole.

Attention is drawn to two other codes, $v$ and $w$, which also appear in the string. These introduce auxiliary components of machine-generated phrases, such as "Damage by floods" and "Damage to crops."

String Writing and the Use of the Role Operators

It was stated earlier that terms in an input string should be set down in a context-dependent order. To ensure that a team of different indexers, or the same indexer on different occasions, consistently arrives at the same conclusions concerning this input order, use is made of the schema of "role operators" which is shown below (Figure 6). Since this schema determines the order in which terms should be cited, it could be regarded as a kind of indexing "grammar." Through use of this schema, the
Start

Take first/next term required as Lead ↓

Print term in Lead ↓

Any earlier terms in string? ↓

Yes ↓

Print these terms in Qualifier in the order in which they occur when “reading up” the string (i.e. the reverse of input order) ↓

No

Any later terms in string? ↓

Yes ↓

Complete entry by printing these terms in Display in the order in which they occur when “reading down” the string ↓

No

Any more terms in string required as Lead ↓

Yes

No

End of entry generation

Figure 4
Basic Algorithm for the “Standard Entry Format”

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20
Standard entries

Entry produced by "predicate transformation"

indexer expresses the relationships between the terms in a summary subject statement addressing such questions as:

(a) which terms are related?
(b) how are they related?
(c) given that a relationship between two terms has been established, which of these terms serves as the "wider" context and should therefore be cited first?

One other question logically precedes all these: i.e. what exactly is meant by a "term"? If, as in PRECIS, a term is considered as a verbal representation of a concept, this question can be rephrased as "What constitutes a concept?" Svenonius expresses this question aptly as follows: "Where does one concept end, and the next begin?" For example, should "Personnel training" be accepted as a single term, or should it be fractured into its separate components, i.e. "Personnel" and "Training"?

Each term in an input string must be preceded by an operator which expresses, in a machine-readable way, the role of each term in the subject being indexed. The operators also contribute to string writing in the following ways:

(a) they actively help the indexer to avoid indexing omissions, prompting him to consider the subject from the viewpoint of each operator in turn.
(b) they define what is meant by an indexing unit or term. A term represents a concept; a concept is that part of a subject which fits the definition of a single role operator. The indexer therefore knows that he should express a compound concept, such as "Personnel training," by writing it into a string as separate terms ("Personnel" and "Training"), since each of these concepts can be introduced by its own operator.
(c) if used correctly, they lead automatically to a context-dependent order of terms. Terms introduced by numerical operators are filed ordinarily, i.e. the lower the numerical value of the op-
Main line operators

*Environment of observed system*

1. Key system; object of transitive action; agent of intransitive action
2. Action/Effect
3. Agent of transitive action; Aspects; Factors

*Observed system (Core operators)*

4. Viewpoint-as-form
5. Sample population/Study region
6. Target/Form

Interposed operators

*Dependent elements*

p. Part/Property
q. Member of quasi-generic group
r. Aggregate

*s. Role definer
t. Author attributed association

Coordinate concepts

g. Coordinate concept

Differencing operators

(*prefixes by $*)

h. Non-lead direct difference
i. Lead direct difference
j. Salient difference
k. Non-lead indirect difference
m. Lead indirect difference
n. Non-lead parenthetical difference
o. Lead parenthetical difference
d. Date as a difference

Connectives

(*Components of linking phrases; prefixed by $*)

v. Downward reading component
w. Upward reading component

Theme interlinks

x. First element in coordinate theme
y. Subsequent element in coordinate theme
z. Element of common theme

Figure 6

PRECIS Role Operators

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erator, the earlier the position of the term in the string. Other rules apply to the alphabetical operators, which can be inserted into a string where necessary. One of these rules states, for instance, that a term denoting a part (operator “p”) should be written so that it immediately follows the name of its containing whole.

Figure 7 demonstrates how the operators would be applied in practice to the subject considered earlier. It should be noticed that the citation order embodied in the operators produces an order of terms which corresponds exactly to that deduced previously (see the section on “context dependency”) on other grounds.

<table>
<thead>
<tr>
<th>Term</th>
<th>Role</th>
<th>Role operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>Transitive action</td>
<td>2</td>
</tr>
<tr>
<td>Personnel</td>
<td>Object of action, and part of key system</td>
<td>p</td>
</tr>
<tr>
<td>India</td>
<td>Location</td>
<td>0</td>
</tr>
<tr>
<td>Cotton industries</td>
<td>Key system, i.e. the whole, which contains the object of the action</td>
<td>1</td>
</tr>
</tbody>
</table>

**Concept analysis**

**Input string**

(0) India
(1) cotton industries
(p) personnel
(2) training

**Figure 7**
The Use of the Role Operators

The operators have one further and very important function. Since an operator forms one of the components in the “manipulation code” which precedes each term in the input string, the operators also function as computer instructions, and they regulate not only the format of the index entries, but also the typography and punctuation associated with each term. By themselves, the operators cannot convey all the instructions needed for index production; they do not, for instance, indicate whether or not a term is required as a Lead. The manipulation code therefore contains other characters in addition to operators; in fact the primary code consists of 9 characters, the operator being the 3rd (Figure 8). We shall not attempt a detailed description of these codes in the present account; this, and other technical aspects of PRECIS, can be found in the “Manual.” It is, however, worth mentioning that the choice of lead terms is regulated by the fourth character in the code:

0 = Not required as Lead
1 = Required as Lead

In Figure 8 all terms are marked as Lead.

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It is also worth pointing out that, despite their formidable appearance, these codes can be mastered by an indexer after an hour or two of practical instruction.

Syntax and Semantics

There is a current tendency—which possibly springs from the writings of the Cranfield researchers—to talk of "index languages" rather than "indexing systems." The new term is apt, insofar as it prompts us to view indexing systems as special-purpose languages, and to describe them in linguistic terms. A distinction is made in linguistics between syntactic and semantic relationships (Gardin referred to these as "syntagmatic" and "paradigmatic" relationships respectively). In PRECIS, these different types of relationship are seen as forming two dimensions in a total subject description (Figure 9).

We have concentrated so far on syntactic relationships: that is, those relationships which are:

(a) document-dependent (or a posteriori)—in the sense that the presence of a relationship between, for example, "India" and "Cotton industries" is contingent upon the existence of a document in which these concepts are brought together. We cannot reliably predict these syntactic relationships in advance of indexing.

(b) variable; the syntactic relationship between two concepts may vary from one subject to the next. Consider, for instance:
"The assessment of students by teachers"
"The assessment of teachers by students"

Although the same concepts appear in both of these subjects they are related in quite different ways.
(c) displayed in PRECIS by the juxtaposition of terms in index entries.

Semantic relationships, on the other hand, are characterised as:
(a) document-independent (or a priori)—in the sense that a relationship between “Cotton industries” and “Textile industries” exists by definition, i.e. the concept “Cotton industries” necessarily entails the broader concept “Textile industries.”
(b) invariant; “Textile industries” and “Cotton industries” stand in a hierarchical relationship regardless of the various subjects in which they might occur. One cannot readily foresee any circumstance which would cause this relationship to change, e.g. to one of synonymy.
(c) displayed, in PRECIS, primarily (though not exclusively) by means of “See” and “See also” references.

PRECIS belongs to the category of alphabetical specific indexes, and each concept is represented by a single specific term. Redundant terms, including any whose presence is sufficiently implied by the presence of some other term in the entry, are excluded as a matter of policy. This applies in particular to semantically related terms; it is considered that their inclusion in a string would seriously impair the intelligibility of entries. We have to remember, however, that a user may still wish to approach a subject by a term judged as redundant by the indexer. To allow for this, the index provides a network of “See” and “See also” references directing the reader towards lead terms in entries, from other terms, such as synonyms, the names of containing classes, etc.

Semantic Relationships

PRECIS follows the ISO (International Organization for Standardization) guidelines on thesaurus construction in recognising three basic types of semantic relationship. These relationships, and the references used to express them, are listed in Figure 10.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Method of display</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQUIVALENCE (Synonymy)</td>
<td>“See” reference</td>
<td>Staff See Personnel</td>
</tr>
<tr>
<td>e.g. Forbidden term/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>preferred term</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| HIERARCHICAL          | “See also” reference | Textile industries
| e.g. Genus/species    |                   | See also
| ASSOCIATIVE           | “See also” reference | Manpower
| (Non-hierarchical)    |                   | See also
|                       |                   | Personnel                    |

Figure 10
Basic Types of Semantic Relationship
This classification of relationships is not especially novel. For many years, thesauri have indicated the equivalence relation by the convention “Use/UF,” the hierarchical relation by BT/NT, and other associations by the convention RT.

The equivalence and hierarchical relationships require no explanation. However, the presence of a valid associative relationship is not always self-evident, and in practice this type of relationship tends to be identified by a simple process of elimination. In PRECIS an attempt has been made to give somewhat firmer guidelines: it is considered that two terms are linked by the associative relationship if they share an obvious semantic connection, are neither equivalences nor hierarchically related, and if one of the terms helps to define or explain the other. In this way, PRECIS provides not only traditional hierarchical references from the name of a genus to its species, e.g.

Rescue services
See also
Lifeboat services

but also shows those less-obvious semantic routes to a term which may, nevertheless, be useful to the user, e.g.

Shipwrecks
See also
Lifeboat services

There is no theoretical limit to the total number of references which may be made to a given term, nor to the number of references made to that term on the basis of a particular type of semantic relationship. For example, a term such as “Cars” may have:

(i) two synonyms
Automobiles  See  Cars
Motor cars  See  Cars

(ii) two higher generics
Motor vehicles
See also
Cars
Passenger vehicles
See also
Cars

(iii) an associated term
Motoring
See also
Cars

The reciprocals of all these relationships are recorded in the machine-held PRECIS thesaurus, but for economic reasons hierarchical relationships are displayed in the printed index only from the broader to the narrower term, e.g.

Motor vehicles
See also
Cars

The Indexing Vocabulary
The vocabulary used in PRECIS can be described as:

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(a) structured, that is to say, the types of semantic relationship considered above are recognised and recorded.

(b) controlled, in that each concept is represented by a single “preferred” term, “See” references being made to preferred terms from non-preferred synonyms.

(c) open-ended, in that new terms can be added to the system as soon as they are encountered in the literature. The vocabulary then achieves a measure of currency beyond the scope of any system in which additions to, and revisions of, the vocabulary depend upon the decisions of an editorial board. In choosing a preferred term, and identifying its semantic connections with other terms, the indexer is likely to draw on one or more of the following kinds of information source: dictionaries, glossaries, reference works, thesauri, classification schemes, his own knowledge, and the knowledge of any available subject experts.

**Generation of References**

References, like index entries, are generated from a computer-held file. This file consists of several independent but interrelated addresses, each of which contains one or more of the following data:

(a) a Reference Indicator Number (RIN) which uniquely identifies that particular address.

(b) the term assigned to that address. This may be either a referred-from or a referred-to (target) term in a printed reference.

(c) in the case of a target term, one or more reference-generating codes. Each code is followed immediately by the RIN of a referred-from term, and it indicates: (i) the relationship between the target term and the referred-from term, (ii) the type of reference (“See” or “See also”) which should be printed.

A record on card of this kind is made out for each term when it is first admitted into the vocabulary. Three simple examples of term records are shown in Figure 11.

**Figure 11**

<table>
<thead>
<tr>
<th>RIN of target term</th>
<th>Target term</th>
<th>Codes</th>
<th>RINs of referred-from terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>0003514</td>
<td>Industries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0010464</td>
<td>Textile Industries</td>
<td>$0</td>
<td>0003514</td>
</tr>
<tr>
<td>005920x</td>
<td>Cotton Industries</td>
<td>$0</td>
<td>0010464</td>
</tr>
</tbody>
</table>

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These term records on card serve first as copy for a keyboard operator. Once the data has been assigned to the computer, the cards are returned to the indexer, sorted into alphabetical order, and they then serve as the indexer's main authority file of terms. In time this information will be available on-line.

During the production of an index, the computer could be instructed to generate a full set of references from the terms in the machine-held file. However, unless we intend to produce a complete retrospective index (i.e. one which contains all the entries created so far) the resulting output would almost certainly include a number of "blind" references, i.e. references leading to terms not used as leads in that particular issue of an index. To generate only those references which are appropriate to a given index, the terms in each string are first checked against the authority file, and their RINs are established. These numbers are then added to a special field in the indexing record, and it is these which generate all (and only) the references appropriate to those entries.

To demonstrate the operation of this stage in index production let us assume that the term records shown in Figure II are on the machine-held file, and that the RIN for "Cotton industries" (005920x) has appeared on at least one indexing record. This number conveys the following instructions to the computer:

(a) proceed to address 005920x in the machine-readable file; find and record the target term stored there, i.e.

Cotton industries

(b) establish the presence of any reference-generating codes at this address (e.g. $o). This particular code will be interpreted as an instruction to print a "See also" reference to the target term, e.g.

See also

Cotton industries

(c) proceed to the address which follows the reference-generating code (0010464); extract the referred-from term, and complete the reference:

Textile industries

See also

Cotton industries

(d) each referred-from term is next treated in its turn as a target term, and the operation is repeated. This would give rise to a further reference such as:

Industries

See also

Textile industries

(e) this operation will be repeated step-by-step to the top of a hierarchy, a reference being generated at each step.
The routine described above would lead to the printing of references directly from one term to the next term lower in the hierarchy. However, the program also includes a special mechanism for suppressing references to certain terms in the hierarchy which did not also occur in an index entry. If, for example, a given issue of an index had not included an entry under “Textile industries,” the final reference would have been printed as:

Industries
See also
Cotton industries

The Subject Indicator Number

In the section on “Division of Labour in Index Production,” reference was made to the Subject Indicator Number (SIN) as one of the elements in an indexing record which uniquely locates the address in a machine-held file at which all the indexing data will be stored. Its special role in practice is best explained by considering the progress of a document as it is catalogued and indexed to produce a MARC record. Those catalogue data which are unique to the document (e.g. its author, title and collation) are recorded on a special cataloguing form. However, no space is provided on this form for subject data, apart from a special field which will later hold the SIN. Indexing data are recorded on a special form; the SIN is then assigned to the subject data, and these are submitted separately to the computer.

At the same time, the SIN which locates these subject data is also written on the catalogue record. This number effectively links these two types of data, and they can then be brought together to form a unit when, for example, a MARC tape or the national bibliography is being produced.

When subject data are accepted by the computer, the machine responds by producing, on cards, all the index entries and references generated by the string and its RINs. The SIN also appears on each of these cards and the cards then function as the indexer’s main authority file. If, on a later occasion, an indexer examines a document, establishes its subject matter, and then finds that this subject exists already on the file, he can write the SIN directly onto the catalogue record and the transaction is complete; none of the subject data needs to be rewritten. To understand fully the saving (in terms of intellectual effort) which this mechanism allows, it needs to be realised that, in the British Library, indexing data includes not only the PRECIS string and its RINs, but also an associated DC class number, an LC class number, the appropriate Library of Congress subject heading(s) plus various other data. As the size of the authority file grows, so does the chance of encountering a repeat subject which can be handled simply by quoting an existing SIN. In BNB, after three years of PRECIS, over 50% of the documents appearing in the bibliography were being handled by quoting existing SINs in this way.
Overview

In conclusion we will briefly attempt to draw the threads together. Figure 12 outlines the sequence of operations leading to the production of a PRECIS index to the *British National Bibliography*. Steps are shown in their logical order, rather than in the order in which they are actually performed, and details of steps not immediately connected with PRECIS are kept to a minimum. This flow diagram is intended to illustrate the way in which the various components of PRECIS combine together to form an integrated system for the production of machine-readable records which can be used for catalogue production, international exchange, and other bibliographical activities.

Step 1  Create a cataloguing record.
Step 2  Check the index entry authority file. Is the subject of the document to be indexed already on file?
  Yes Go to Step 10
  No Go to Step 3
Step 3  Write a PRECIS string.
Step 4  Check the string against the card file of term records. Are all terms already on file?
  Yes Go to Step 6
  No Go to Step 5
Step 5  Create any new term records required; assign RIN.
Step 6  Add the appropriate RINs to the indexing record.
Step 7  Add other subject data (e.g. Dewey classmark) to the indexing record.
Step 8  Add an SIN to the indexing record.
Step 9  Assign the indexing record to the machine-held file.
Step 10 Add the SIN to the cataloguing record.
Step 11 Input the cataloguing record.
Step 12 The computer links cataloguing data to the subject data stored at the indicated SIN, producing a complete MARC record.

Figure 12
Preparation of a MARC Record

REFERENCES

The basic aims of Fremont Rider's International Classification are re-examined. It is argued that there is a difference between classification for bibliographies and catalogues, on the one hand, and classification for the arrangement of physical items on shelves, on the other, yet some systems try to meet both needs. The requirements for a shelf classification are examined and the hypothesis is offered that they cannot easily be met by a classification designed for catalogues and bibliographies. If distinct classifications are feasible the result might be greater efficiency and the narrowing of the gap between different modes of thought regarding library classification. Little-used systems, such as Rider's, ought to be tested as shelf classifications alongside acknowledged standard schemes.

EVEN THE MOST SUPERFICIAL EXAMINATION of recent publications on library classification reveals that writers and researchers on the subject have become engrossed, some almost to the point of obsession, with the full subject analysis of each item and its expression in the resulting class-number or call-mark. To some degree this is understandable, in that many books or other "information packages" are now clearly multifaceted. What is more, advances in classification theory and the promise of machine-held files of carefully coded concepts have stimulated the in-depth investigation of possible citation orders, semantic meanings, notation for classification in a mechanized system, and similar problems. Yet classification for the shelves, as followed by a whole host of general libraries, has come to be relatively neglected. Perhaps this is not strange in that facet theories lead to distressing notational problems in this sphere, while many would argue that it is one in which there is little or no scope for further advancement since the Library of Congress (LC) and Dewey Decimal (Decimal) systems hold a very strong and
deeply entrenched position. It is perhaps scarcely possible now for any system to offer enough advantages of a decisive kind to have any real prospect of replacing them, and no vigorous challenges exist.

Nevertheless a new system aimed solely at the task of organizing books on the shelves of general libraries was launched quietly in 1961. While we quickly recognize the centenary of the Decimal system, it is hard to believe that fifteen years have passed since Fremont Rider produced his *International Classification*—which some British classification enthusiasts seemed to think epitomized the fact that the gulf between their philosophy and that of contemporaries in the United States was as wide as the Atlantic—and certainly its reception could, at best, be described as lukewarm. The scheme does not seem to have been applied at all, and one reviewer spoke of it as urging us to return to nineteenth-century methods "with all the fervour of a revivalist preacher," complaining that it had to offer "nothing new except an up-to-date tabulation of knowledge."¹

Notwithstanding this, the scheme has some interesting tenets which at least form a basis for argument over the philosophy and purpose of any scheme or for a critical analysis of classificatory practice. Rider's beliefs may be listed succinctly as follows:

1. If a classification is to be truly international, it must be neutral with regard to cultures and creeds. The Decimal Classification is not (but that was not Dewey's fault).

2. No library employing the LC or Decimal classifications should change unless acutely disenchanted with them. The International Classification is strictly for new libraries.

3. Notation must be pure, short, and simple. This is seen as the key reason for Dewey's success, especially in the early editions. Rider selected a letter notation, providing places for some 17,000 topics without ever exceeding three letters. (In his argument for letter class-marks, he seems to ignore the "international" pull of numbers.)

4. Shelf classification is different from classification for catalogues, bibliographies, and sophisticated retrieval systems. No one scheme can serve all masters. (Rider calls the first group "library classification" and the second group "bibliographical classification.")

5. Enumerative classification—the use of ready-made class-marks—suffices for the shelves. Thus Rider spurns what has come to be known as analytic-synthetic classification and has no "add to" instructions. The International Classification is thus claimed to be easy to apply.

Wherever geographical subdivision seems to be called for, it sets out, as an integral part of its classification tables, the exact amount, and the exact kind, of geographical subdivision which it deems necessary at that particular point. . . . It obviously has to throw mnemonics to the winds; but it greatly lightens the work of the classifier and gains enormously in the compactness of its call numbers.²

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He is, for a classification maker, extremely modest, and says of the Decimal Classification, "no other existing book classification even remotely approaches it in practicality."3 (Of course Rider had been a biographer of Melvil Dewey, and when he produced a poem about man's varied achievements and spoke of the supreme task of

him who grasps what all men do  
And blends it into order  
To give man's chaos of thought a reasoned form

it was Dewey that he had in mind.) 4

What can one say, in retrospect, of the International Classification or of its compiler's aims and ideas? It is true, as the present writer has already said, that "it is more likely to attract dust than adherents."5 Yet it is the product of a most energetic scholar with a very wide range of interests; it is modern; notational apportionment and balance are generally very good (although some subjects such as automation and educational psychology demand more room) and it is admirably simple, with little national bias. A revision policy is lacking, but could doubtless be provided—with no users at present that is scarcely a problem. But Rider's greatest contribution is the food he gives for thought. One of the beliefs listed above has gained much impetus since boldly proclaimed in the preface to the International Classification. It is the assertion that classification for shelf arrangement is essentially different from classification for catalogues or for sophisticated retrieval methods. Now Ranganathan would not have this; he always argued that a single scheme could serve for order on the shelves and for arrangement within library catalogues. The amount of detail offered by such a scheme, he urged, should depend entirely on the subject of the book or other document to be classified, since we should seek co-extensiveness of subject and class-mark and the detail should be there, in the scheme, in case of need. But since 1961 there has been, even in Britain (the great stronghold of classification theory), a growing realization that there is a real difference between the classification of physical objects on the shelves and the possible classification of descriptions of these in the catalogue. The warnings that appear in papers by Moss, Line and Bryant, and even Austin all emphasize this in various ways.6 It is significant that the research that has borne fruit in PRECIS and the other work of Austin began by seeking a way to produce a new classification for both the shelves and complex retrieval systems, but soon abandoned the former goal.7 Perhaps the real difficulty lies in the fact that classification for the shelves, although still an absolutely necessary instrument in most libraries, is a relatively blunt one; however much finesse is applied to the process, the degree of efficiency remains much the same. It is clear that finesse in the form of extra detail is not the way to provide greater efficiency; rather, the extra detail brings in disadvantages: it slows the classifying process, adds complexity to the notation, yet does not reveal subject relationships pertaining to secondary facets. Austin, in fact, now

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argues along these lines, stating that “reluctance to adopt one of the high level systems in a general library is based upon entirely practical considerations, and has to be seen in terms of the relationship between the amount of intellectual effort which is demanded by these systems and the benefits which they offer.”

If we accept this argument, we can divide classification schemes into various camps. Rider’s is for the shelves, Austin’s emerging system is for computerized retrieval, for instance. Some classifications still claim to be all-purpose tools, however. Apart from Colon, there is the forthcoming revision of Bliss (BC) which offers, via synthesis, a potentially very detailed vocabulary. Mills writes “BC provides comprehensively for shelf ordering of stock and for the organizing of classified indexes,” but he then speaks of a controlled vocabulary for post-coordinate indexing and adds, “BC is excellently equipped to provide this vocabulary.” We may think of Dewey as the shelf classification par excellence, but one modern advocate speaks of “its adaptability both for conventional shelf or classed catalogue analysis and also, through its meaningful notation, for retrieval through mechanization and computerized systems.”

Looking at Rider’s work, fifteen years on, one sees his uncompromising insistence that a shelf classification should be no more than that. If he was right, what deductions can be made? What is more, do multipurpose schemes actually lose efficiency in each sphere because of the attempt to be all-rounders?

Before trying to answer such questions, it is as well to recollect the results of Davison’s survey of Dewey use in Britain, which showed that librarians want a brief and simple notation for the shelves, but demand detail in their classified catalogues or bibliographies. Bearing this in mind and remembering that shelf order (although an important frontline subject display and self-service aid) is inevitably limited in its ability to reveal detail or intricate subject relations, one can start by arguing that synthesis in classification, notwithstanding the attention given to it by so many British enthusiasts (including the present writer), is essentially for subject analysis in a classed catalogue and that an enumerative system for shelf order saves time and effort (as Rider demonstrates), is likely to have a more acceptable notation, and gives the same degree of effectiveness at the relatively crude level of macro-order than can be achieved there. Synthesis would, in such an argument, still be seen as absolutely essential in a system like the Universal Decimal Classification (UDC) or the Colon Classification aimed chiefly at classified catalogues, or in any new system for computer-held indexes.

If such thinking can be accepted, one can digress briefly to consider the role of notation. Traditionally it has been argued that the requirements of notation clash with each other to some extent, and many texts have aired the pros and cons of hierarchical notation, for instance. But, if Rider’s distinction between library classification for shelves and bibliographical classification for catalogues and retrieval devices is valid,

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then each category may have its own distinct desiderata in the notational plane. For shelf arrangement, notation must be brief, yet it could feasibly be hierarchical also to facilitate guiding, provided the classification is relatively broad (say 17,000 topics as in Rider). In classified catalogues, information retrieval systems, and so forth, a synthetic classification would come into its own and notation need not then be brief. It would, however, need to be very hospitable—which is why the non-hierarchical use of symbols allowing for the potential interpolation of topics at any point would probably be preferred—and presumably mnemonic. Certainly if a system claims to be “all-purpose” it will have extra problems in the notational sphere due to conflict between various desirable features.

All these speculations, which may seem somewhat heretical, began to grow when the writer re-read Fremont Rider’s preface. But even if they carry some truth, they also rest upon two assumptions which may seem unrealistic. One is that it is still possible in library classification to say “Use scheme X for shelf arrangement and system Y for arranging entries if you have a classed catalogue” or to advocate “employ multipurpose scheme Z, but only use its broad enumerated detail on the shelves.” For most of us, in fact, a fresh start now seems impossible. It may be reasonable for computerized retrieval slanted classification, but Austin reminds us that “the chances must be slight indeed that any new way of notating books on shelves would now gain ground from the familiar and established general classifications,” although he shows interest in the design of “a successful and specialized shelf order scheme” and lists criteria for one.12 We shall return to the criteria later, but the reception given to the International Classification clearly supports the warning.

The speculation that a broad and enumerative scheme with a brief (and largely hierarchical?) notation can suffice for the shelves while a highly detailed synthetic scheme with a very hospitable notation is imperitive for other purposes also rests on the assumption that a certain practical problem can be solved. For although classification in a catalogue may be used to arrange subject entries in a helpful sequence, it always acts as a location device—a link between catalogue and shelves to show the physical address of each item. Thus, to accept the hypothesis sketched above, a classified catalogue would need to incorporate two systems—one to file entries, the other to show shelf locations. This may seem strange, but is clearly not impossible. On the other hand, those who use dictionary catalogues might continue to say that only the simpler classification is necessary, while advocates of the single “all-purpose” system could argue that—if simplified classification for the shelves is conceded—the full Decimal, Universal Decimal, or revised Bliss system can be used in the catalogue and each entry could indicate a truncated form of class-mark for shelving.

Austin speaks of stripping a shelf order scheme of unnecessary refinements to leave a brief and simple notation, reasonable collocation on
shelves, a scheme which is easy to apply, and a fairly stable maintenance policy.\textsuperscript{18} If one can, even for a few (perhaps wildly speculative) moments, completely ignore the present position of systems to examine them simply on merits in the light of these criteria, some interesting points emerge. The Decimal and LC classifications, despite their position as international standards and despite their huge success in terms of use, seem somewhat impeded as shelf systems by their attempt to be multi-purpose. Their notation is not always short and this fault is exacerbated in Dewey by the effect of a hundred years of expansion and change within the field of knowledge working upon a fairly rigid framework in which notation was frequently ill-apportioned. Neither scheme offers a very reasonable modern collocation of topics. LC is certainly the better in this respect, at least at the broad level and for a scholarly library, and is partly indebted to Cutter for this, but the mode of division is frequently cumbersome, as is the notation, and there are several rather archaic groupings. Maintenance policy is good in both cases, but Dewey is not always easy to apply as a shelf scheme because of its partial use of synthesis and also because the synthetic devices have been extended in somewhat piecemeal fashion over the years so that, in applying Area Table numbers to a class-mark from the main tables for example, rules cannot be applied consistently throughout. Against the two \textquotedblright {giants} let us consider two \textquotedblright {parvenu} contenders for providing order on the shelves—the revised Bliss Classification and Rider's scheme. These would offer short alphabetical class-marks for the shelves (assuming that in BC the synthesis is reserved for catalogues and truncation is occasionally used). Both are likely to be applied quickly and easily; indeed the author has found that this is certainly so in the case of the International Classification.

Revision is a problem, but one that could be solved if interest in these schemes can be generated and some evidence of their practical ability displayed. Finally, on the questions of collocation, sequence, balance, and modernity, it is clear that because of the scholarship and utility of the enumerated detail, both the huge single volume of Rider and the circulated drafts of classes for the new edition of Bliss are superior to either LC or Dewey as a shelf order system.

This, of course, does not necessarily mean that either will make any headway at all! Prospects for any new contender as a shelf classification have been described above as poor, but this does not seem to deter someone with the pioneer spirit of Mayne from experimenting,\textsuperscript{14} nor does it stop several libraries from adjusting one of the standard systems extensively—and often expensively—experimenting with \textquotedblright {reader interest} order perhaps (if a public library),\textsuperscript{15} or (if an academic library) possibly devising a homemade system based on teaching patterns and faculty structures within the parent institution.\textsuperscript{16} From the knowledge that there is an innate desire in many librarians to tinker with established classifications, to try to shape a system to fit the needs of a particular in-
stitution, or simply to classify items themselves rather than meekly accept the decisions of a national cataloguing service, the following hypothesis springs. Might it not be rational to seek out and apply consciously a clear dichotomy in library classification? On the one hand we might have an enumerative classification for the shelves which meets Austin's stated criteria and could be applied locally—thus satisfying an innate urge to do some classifying ourselves—without undue intellectual effort or waste of time. (Remembering the limits of classification at this level, it is hard to accept A. C. Foskett's dictum that hard work and expense are necessary.) This system would appear on catalogue entries as a location device, but those wanting a classed catalogue would, on the other hand, also employ a much more complex synthetic system for the arrangement of entries, including entries for nonbook items, based on thorough subject analysis. The writer remains convinced that the second type of classification, largely supplied by national agencies and built into the MARC record so that the cost is removed from the local library level, is much needed and that the need may grow as administrative and economic circumstances force the transfer of more material to closed-access stacks, resulting in greater reliance on the subject catalogue. Now while some librarians may strongly favour an alphabetical subject catalogue, it is clear that established lists of subject headings give rise to increasing problems—partly because they do not adhere to carefully planned and accepted principles, having been subjected to improvisation and piecemeal or ad hoc growth over the years. It might well be that a new general system aimed at classified catalogues and supplied with a powerful alphabetical subject adjunct such as PRECIS would give us a basis for a subject catalogue far superior to anything that has been hitherto achieved and would lead to a new situation where the classified and alphabetical subject catalogues were a complementary unity rather than competitors.

If all this speculation is not too unrealistic, one might go on to argue that a clear distinction between classification for the shelves and classification for retrieval systems where surrogates rather than items are arranged would clear up some arguments about this subject, as certain requirements of schemes or of notation, as stressed in textbooks, would clearly relate only or chiefly to one of these distinct contexts. Perhaps we may even hope that such a distinction would lead to some closing of the gap between "schools" of classification thinking in North America and Britain respectively—since synthetic classification aimed solely at the catalogue might win the sympathy and respect of the doubters, especially if a more rationally constructed and utilitarian alphabetical subject by-product arose from the process, while enumerative systems would be accepted for the shelves.

Perhaps, of course, the speculation is much too far removed from what will happen, although it can still have value in helping us to rethink our policy critically and to justify present practice. Yet as funds
were found to support the testing of “advanced” indexing languages aimed largely at special libraries, as carried out at Cranfield and elsewhere, would it not be feasible and worthwhile to test some of the above hypotheses too—perhaps by funded research in the United States? There are thousands of general libraries in various countries, many of them possibly applying an inherited system of classification in an uncritical (dare one say unthinking?) way and perhaps lacking a clear lead. If a carefully devised programme of research and testing proved that the distinction made here between the different functions of classification has some validity or that either the forthcoming revised Bliss Classification or the International Classification offers advantages over Dewey or LC as a shelf system, then possibly the long-accepted status quo might alter, despite Rider’s diffidence regarding reclassification. Alternatively, Decimal and LC might emerge as the best shelf systems, or might be led to drop attributes which gear them for bibliographic retrieval and catalogue organization rather than shelf order. (They would presumably remain in the MARC record in any case and would thus continue as a guide for those not wanting to classify for the shelves locally and individually.) A research programme of this kind would need thorough planning and would not be cheap, but a great deal of money would be saved in many libraries if hard evidence was available to vindicate retention or change of present classificatory practice for the shelves. A new system could be introduced from a given date in many libraries if really justified.

It seems certain to many of us acquainted with the evolution of bibliographical classification over a century that the end-product of Austin’s work may well be a “retrieval classification” or “meta-language” far superior to anything we now have, and may indeed constitute a requirement of an international MARC. This would leave order on the shelves as the clear primary objective of LC and Decimal, and we should ask, despite the international notation of the latter, do they really score over Rider, Bliss (in its enumerated detail), or even some well-devised reader-interest order with regard to acceptable present-day collocations at a relatively broad level, ease of application, and brevity of notation? Rider’s scheme, fifteen years on, has a moral for us despite its conspicuous lack of any practical success. For a shelf classification, it may be that a system which concentrates on “an up-to-date tabulation of knowledge” has something to offer or to teach.

REFERENCES

3. Ibid., p.xviii.

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13. Ibid., p.75.


Guidelines for the Formulation
of Collection Development Policies

THE COLLECTION DEVELOPMENT COMMITTEE of the Resources Section, Resources and Technical Services Division, American Library Association, was organized to provide a focus in ALA for activities relating to collection development, and, in particular, to: study the present resources of American libraries and the coordination of collection development programs; develop guidelines for the definition of selection policies; evaluate and recommend selection tools for collection development; and recommend qualifications and requisite training for selection personnel. In partial response to these charges, the committee at its New York meeting of 9 July 1974 appointed task forces comprised of committee members and consultants to prepare guidelines for the following collection development activities: formula budgeting and allocation; the formulation of collection development policies; the development of review programs designed to assist in the solution of space problems; and the description and evaluation of library collections. The Guidelines for the Formulation of Collection Development Policies which follow were prepared by task-force members Thomas Shaughnessy, Hans Weber, and Sheila Dowd (chairman), and were submitted to the committee for revision at its meetings of January and July 1975. They were further revised at the committee’s meeting of 19 January 1976 and were then approved for submission to the executive committee of the Resources Section. They were approved as a “preliminary edition” dated March 1976 by the executive committee on 19 July 1976 and were approved by the Board of Directors of RTSD by a mail ballot in August 1976 (seven for publication, one opposed, two not voting).

1. INTRODUCTION

1.1 Purpose.

The committee offers these Guidelines for the Formulation of Collection Development Policies in the belief that collection develop-
ment policy statements must be comprehensible, and that they must be comparable, particularly if they are to prove useful in the implementation of long-range goals for sharing of resources.

1.2 Objectives.
The immediate aims of the designers of these Guidelines are, to identify the essential elements of a written statement of collection development policy, and to establish standard terms and forms for use in the preparation of such policies.

1.3 Need.
Widespread budgetary constraints and the growth of interlibrary cooperation in resources-sharing call for analysis of collection activity in universally comprehensible terms.

1.4 Scope.
The committee has attempted to provide an instrument that will be of use to libraries of all kinds and sizes in formulating statements of their collection development policies. Some elements of the Guidelines, however, will of necessity be more applicable to larger libraries.

1.5 Audience.
The Guidelines are intended to help library administrators and collection development librarians to produce a document that can serve as both a planning tool and a communications device. The resulting policy statements should clarify collection development objectives to staff, users, and cooperating institutions, enabling them to identify areas of strength in library collections; and by this means should facilitate the coordination of collection development and cooperative services within an area or region.

1.6 Methodology.
The Guidelines have been submitted to the committee in open meeting at several Midwinter and Annual Conferences. The group discussions, in which numerous visitors have participated, have resulted in extensive revisions of the initial drafts.

1.7 Assumptions.
1.7.1 A written collection development policy statement is for any library a desirable tool, which: (a) enables selectors to work with greater consistency toward defined goals, thus shaping stronger collections and using limited funds more wisely; (b) informs users, administrators, trustees and others as to the scope and nature of existing collections, and the plans for continuing development of resources; (c) provides information which will assist in the budgetary allocation process.

1.7.2 It is desirable that form and terminology of collection development policy statements be sufficiently standardized to permit comparison between institutions.

1.7.3 Libraries have acknowledged the impossibility of building totally comprehensive collections, and will increasingly need to
rely on cooperative activities. Collection development policy statements will assist cooperative collection building, and will also, in the absence of precise bibliographic tools such as union catalogs, be of value to users and user-service units in locating materials.

1.8 Definitions.

1.8.1 Levels of collection density and collecting intensity codes. The codes defined below are designed for use in identifying both the extent of existing collections in given subject fields (collection density) and the extent of current collecting activity in the field (collecting intensity).

A. Comprehensive level. A collection in which a library endeavors, so far as is reasonably possible, to include all significant works of recorded knowledge (publications, manuscripts, other forms), in all applicable languages, for a necessarily defined and limited field. This level of collecting intensity is that which maintains a "special collection"; the aim, if not the achievement, is exhaustiveness.

B. Research level. A collection which includes the major source materials required for dissertations and independent research, including materials containing research reporting, new findings, scientific experimental results, and other information useful to researchers. It also includes all important reference works and a wide selection of specialized monographs, as well as a very extensive collection of journals and major indexing and abstracting services in the field.

C. Study level. A collection which is adequate to support undergraduate or graduate course work, or sustained independent study; that is, which is adequate to maintain knowledge of a subject required for limited or generalized purposes, of less than research intensity. It includes a wide range of basic monographs, complete collections of the works of more important writers, selections from the works of secondary writers, a selection of representative journals, and the reference tools and fundamental bibliographical apparatus pertaining to the subject.

D. Basic level. A highly selective collection which serves to introduce and define the subject and to indicate the varieties of information available elsewhere. It includes major dictionaries and encyclopedias, selected editions of important works, historical surveys, important bibliographies, and a few major periodicals in the field.

E. Minimal level. A subject area which is out of scope for the library's collections, and in which few selections are made beyond very basic reference tools.

Note: Definitions of collecting levels are not to be ap-
plied in a relative or ad hoc manner (that is, relative to a given library or group of libraries) but in a very objective manner. Consequently it is quite likely that a large number of libraries will not hold comprehensive collections in any area. Similarly, academic libraries which do not support doctoral programs, or other types of libraries which are not oriented toward specialized research, may not have any collections that would fall within the research level as defined herein.

The definitions are proposed to describe a range and diversity of titles and forms of material; they do not address the question of availability of multiple copies of the same title.

1.8.2 Language codes.
The following codes should be used to indicate languages in which material is collected. Libraries wishing a greater refinement of this data may sub-code with the MARC language codes.
F. All applicable languages (i.e., no exclusions)
G. English
H. Romance languages
J. Germanic languages
K. Slavic languages
L. Middle Eastern languages
M. Asian languages
N. African languages
P. Other languages

2. GUIDELINES

2.1 Principles governing formulation and application of collection development policies.

2.1.1 Libraries should identify the long- and short-range needs of their clientele, and establish priorities for the allocation of funds to meet those needs. A collection development policy statement is an orderly expression of those priorities as they relate to the development of library resources.

Note: The collection development policy statement addresses the question of breadth and depth of subject coverage. Libraries will need to formulate separate statements of policy relating to duplication of materials; and such additional policy statements must be given consideration in fund allocation.

2.1.2 Collection development policy statements should be reviewed at regular intervals to insure that changes in user needs are recognized, and that changing budgetary situations are confronted.

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2.1.3 A library's collection development policy should be coordinat-
ed with those of appropriate other libraries, whether in a hier-
archy of dependence, or in a division of responsibility among
equals. A collection development policy statement should assist
librarians to select and de-select in conformity with regional
needs and resources.

2.2 Elements of a collection development policy statement.

2.2.1 Analysis of general institutional objectives, including:
(1) Clientele to be served
(2) General subject boundaries of the collection
(3) Kinds of programs or user needs supported (research, in-
structional, recreational, general information, reference, etc.)
(4) General priorities and limitations governing selection, in-
cluding:
  (a) degree of continuing support for strong collections
  (b) forms of material collected or excluded
  (c) languages, geographical areas collected or excluded
  (d) chronological periods collected or excluded
  (e) other exclusions
  (f) duplication of materials (generally treated; but see
also 2.1.1, Note)
(5) Regional, national, or local cooperative collection agree-
ments which complement or otherwise affect the institu-
tion's policy.

2.2.2 Detailed analysis of collection development policy for subject
fields. The basic arrangement of this analysis is by classifica-
tion; a parenthetical subject term follows the class number for
ease of interpretation. A suggested minimum of refinement of
the Library of Congress classification on which to structure the
analysis is the breakdown into approximately 500 subdivisions
used in: Titles Classified by the Library of Congress Classifica-
tion: Seventeen University Libraries. Preliminary ed. Berkeley,
General Library, University of California, 1973. (A list of the
classes used in that survey is appended to these guidelines.) For
Dewey or other classifications, a comparably refined breakdown
should be attempted.

Note: This recommendation indicates a minimal refinement
of classification analysis needed to permit interinstitu-
tional comparisons. Many libraries will prefer to ana-
yze their collections in greater detail.

For each subject category (i.e., classification number or group
of numbers), indicate the following:
(1) Level of collecting intensity codes to indicate:
  (a) existing strength of collection
  (b) actual current level of collection activity
  (c) desirable level of collecting to meet program needs

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2.2.3 Detailed analysis of collection development policy for form collections.

In some libraries special collection development policy statements are required for certain forms of materials, where policy governing the collection of those materials differs from the library's general policy for subject collections. Some examples of forms for which special policy statements may be needed include:

1. Newspapers
2. Microform collections
3. Manuscripts
4. Government publications
5. Maps
6. Audio-visual materials
7. Data tapes

Where possible, it is desirable that the basic structure of the policy statement for a form collection follow subject classification; but with some form collections it will be necessary to use another primary arrangement (kind of material, area, etc.). For example, the policy statement for a map collection might be divided first into "general maps," "topographic maps," "thematic maps," "raised relief maps," etc., with subdivision by area classification; that for a newspaper collection might be primarily by political division.

Whatever the basic structure chosen, the detailed analysis of collection development for a form collection should include the elements identified in 2.2.2 (1) – (6) above.

2.2.4 Indexes.

The information in the policy statement should be made accessible for a wide variety of purposes. To this end an index should be appended which correlates subject terms to class numbers. Individual libraries may also wish to index by academic programs, library units, or other key words or concepts.

APPENDIX

Classes used in Titles Classified by the Library of Congress Classification: Seventeen University Libraries

| AC | AI | AP | AZ |
|    |    |    | B1–68 |
| AF | AM | AS | B69–789 |
| AG | AN | AY |     |

*Volume 21, Number 1, Winter 1977*
In early 1975, a project, sponsored by the Council on Library Resources through its Fellowship Program, to determine the current application of the Anglo-American Cataloging Rules (AACR) by large research libraries as well as catalogers' suggestions for code improvement resulted in the distribution of questionnaires to the eighty-one members of the Association of Research Libraries (ARL), which had agreed to assist the study. (Only thirteen (13.8 percent) of the ninety-four libraries then comprising the ARL membership did not choose to participate.) Of the institutions which received questionnaires, seventy-five returned them for a response of 92.6 percent.

One of the objectives of this undertaking was to yield specific data about decisions taken by participating libraries with regard to their adoption, application, and assessment of revised chapter 6, "Separately Published Monographs." The report which follows represents an effort...
to share this information with those interested in following developments that concern the bibliographic description of library materials.

Adoption and Application

Any concern that the conventions of ISBD (M): International Standard Bibliographic Description for Monographic Publications would prove alien to the research library community was quickly dispelled by its widespread acceptance of the revision of chapter 6 of the Anglo-American Cataloging Rules, North American Text, which was "occasioned . . . to incorporate the provisions of the International Standard Bibliographic Description (Monographs) into the text [of the AACR] in regular cataloging rule form." Within the first eight months which followed publication of revised chapter 6, thirty-eight or 50.7 percent of the participating ARL libraries had adopted it for purposes of original cataloging. Of these, thirteen made the switch during the latter half of 1974, while twenty-five began to use the new rules within the first quarter of 1975. In addition, thirty libraries (40 percent) of the respondents reported that although they had not yet adopted revised chapter 6, they did plan to do so. Seventeen of them set mid-1975 and two established January 1976 as the target dates for the changeover. And, on September 1, 1975, the ten libraries which had wanted to time their implementation of revised chapter 6 with that of the Ohio College Library Center (OCLC) presumably began to apply its provisions for cataloging input to OCLC's data base. Thus, by March 1975, only seven (9.3 percent) of the research libraries surveyed had not yet settled on a policy for adopting the new rules for the description of monographic publications. None indicated a decision to reject them.

It is significant that research libraries, having accepted the changes in practices brought about by the revision of chapter 6, also support the introduction of changes to the AACR which are undertaken to incorporate International Standard Bibliographic Descriptions in the form of rules that are mandatory in their use. When queried, fifty-four (73 percent) of seventy-four participants with an opinion on the matter either "disagreed" or "strongly disagreed" with the idea that revisions to bring the AACR into conformance with ISBD's should appear as optional features of the code. As one respondent stated: "An 'optional' standard is meaningless and ISBD should be accepted or rejected by the AACR." Typical of more strongly held views as expressed by several others was the comment that "optional ISBD is isolationist in an age of cooperation and internationalism."

Of the libraries surveyed which have adopted revised chapter 6 or announced their intention to do so, twenty-four (35.3 percent) have decided to apply it in its entirety to the cataloging of all monographic publications selected for processing.

In accepting the new rules, the remainder have qualified their use of them. Some participants report policies that exempt specific categories
of library materials from application of revised chapter 6. Others have modified certain of its provisions to substitute local rules for them. In addition, five stated that as a result of cooperative cataloging arrangements they would deviate from the new rules as may be required by their networks.

Following the policy of the Library of Congress, twenty-seven participating institutions limit use of the new rules to works bearing an imprint of 1821 or later. Two libraries have excepted all items acquired for its special collections, while another will not apply revised chapter 6 to any publication with a pre-1850 imprint. One library stated that monographs appearing before 1974 would not be subjected to the new rules. Two libraries have preferred to provide brief cataloging rather than full standard descriptions for theses; one of them extends this practice to include pamphlets.

In addition, one or more of the respondents indicated decisions to amend or reject revised chapter 6 insofar as concerns the following rules: 131 (Punctuation); 136D (Photographically reproduced reprint and facsimile editions with only the original title page); 138 (Publisher); 139 (Date); 141 (Collation area); 142 (Series area); 143D2e (Original title notes); 143D3e (Notes-Imprint area); 146 (Thesis note); 148A3 (Informal contents notes); 149 (International Standard Book Number); 151D (Tracing); 152 (Issues and photoreproductions treated as such); 153 (Offprints); 154 (Detached copies of parts of works); 155 (Supplements, indexes, etc.); 156 (Photoreproductions to be described as such). Locally developed substitutes for these rules, insofar as they were described, are indicated within the paragraphs below that report respondents' reactions to specific provisions of revised chapter 6.

Also pertinent to the application of revised chapter 6 are the decisions taken on the use of the two alternative rules which it incorporates. The first of these—presented in footnote 8 to rule 134D1—authorizes omission of author statements except when specified circumstances necessitate their inclusion. Only nine (18 percent) of the fifty libraries which have adopted the new rules or plan to do so report that they have opted to follow the alternative rule in this case. On the other hand, eighteen (41.9 percent) of the forty-three respondents who indicated a decision in the matter have elected to adopt the other alternative rule in revised chapter 6, that set out in footnote 20 to 143D2c-e to guide "libraries which do not use uniform titles (or which use them only for particular authors)" in forming certain original-title notes. In addition, one library has chosen to reject both rule 143D2c-e and alternative 143D2d-e in favor of the following version of 143D2c:

The title of one or more other editions in the same or another language, published earlier or simultaneously (but not later). Use either form:

New York ed. (Knopf) has title:
American ed. published under title:

(It may be interesting to note that in the view of one respondent rule...
Evaluation

Widespread adoption of revised chapter 6 and general support of the purpose which had prompted its preparation, however, should not be taken as a suggestion that this publication has enjoyed uncritical acceptance by its users.

Comments by the respondents indicate that the presentation and format of revised chapter 6 impede its comprehension. The wording of the text proved to be a subject of general dissatisfaction. “The rules of the changed chapter 6 in general are not difficult to apply, but the language of revised AACR should be more explanatory,” remarked one participant; “the old edition of the chapter 6 was very much better on this.” Respondents frequently complained about examples to demonstrate rule application. As one stated in a comment which was typical of others: “Chapter 6 is in great need of a variety of examples to illustrate its many innovations. . . .” It was also suggested that inclusion of composite examples to display the effects of rule application on the formulation of catalog entries as a whole would have served to ease efforts at absorbing the new rules. The failure of the publication to provide an index was very often cited as a cause for difficulty in learning and applying its provisions. In addition, shortcomings which resulted from production of revised chapter 6 by camera copy of typewritten script—especially because of the lack of a variety of typographical faces and indentions—were said to have hindered its use.

Beyond these general concerns, respondents identified particular provisions of revised chapter 6 which they feel are deficient. Sometimes their comments reflect misunderstanding which may have been caused by unclear rule writing; on other occasions, they illustrate inadequacies in the rules themselves. Respondents also cited provisions to which they objected on grounds that these rules yield undesirable results or are impractical to apply.

Rule 131 introduces the concept of prescribed punctuation as a means of systematically delimiting and identifying the parts (“areas” and “elements”) of a bibliographic record. For most respondents, this practice constitutes the most radical change to appear in revised chapter 6, and it is therefore not surprising that some voiced objection to its anticipated effects on the catalog user. “The needs of the patron are ignored in this change,” felt one participant; “when one has been taught standard punctuation, the slashes, equal signs, strange spacing, etc., are confusing to say the least.” Others echoed this sentiment. Indeed, one adopting research library initially decided to reject the punctuation conventions of revised chapter 6, although it subsequently reversed its position in this matter.

Further comment on rule 131 related to the practical applications of
its provisions. Problems cited included the lack of instructions to address the handling of prescribed punctuation at the end of a line. For example, the cataloger is not told how to deal with the situation where a period-space-dash-space sequence concludes a line of text in the bibliographic description; may the prescribed punctuation be divided or must it be moved en bloc to the next line? In addition, there appears to be some uncertainty about whether marks other than colons, equal signs, and slashes appearing within statements to be transcribed may be retained in the description.

Remarks concerning rule 133 (Relationship of title page to the description of a work) reveal some difficulty in the interpretation of this provision. One comment indicated confusion about the meaning of the phrase “normally on the title page” in rule 133A1, as follows:

Very often a translator’s or editor’s name is given on the verso of the title page, with, perhaps, copyright information that does not repeat the title page. In this case is the translator’s name to be used without brackets? It would help to have an example or two of “successive pages or leaves” that are considered continuations of the title page.

It was also suggested that 133A should provide for insertion of a uniform title before the transcription of the title proper, as was done in the 1967 edition of the British text of AACR; however, this proposal fails to recognize the use of uniform titles as an element of headings, not of bibliographic descriptions.

Rule 134, which covers the title-and-statement-of-authorship area, proves to be one provision of revised chapter 6 which, according to respondents, requires a substantial increase of examples. In addition, the nature of the problems which they cited with regard to 134 leads to the conclusion that the rule does not offer sufficient guidance to enable clear differentiation between title proper and “other title information” and to establish the point where the title elements end in all situations. For example,

It is not clear what belongs in the title and what in the author statement. LC interprets “of” to indicate an integral part of the title while “by” indicates an author statement. This seems arbitrary, and strangely has nothing to do with whether the following organization is used as an entry. For conference proceedings the slash usually precedes the editor (if any) but not the conference heading which is the main entry. There is also the question of the prepositional phrase “for . . . (an organization).” This rule seems to be an exercise in making difficult distinctions which are useless for all practical purposes. The title page frequently does not provide grammatical linkage between “conference proceedings” (or equivalent term) and what follows. Do we insert [of the] . . . separated by a space colon space, e.g. “Proceedings : Conference on . . .” or put the conference title in the author statement . . .?

Beyond these considerations, respondents objected to four practices resulting from application of 134D: (1) the transcription of the full hierarchy of corporate body names in statements of authorship; (2) the
use of the phrase "et al." rather than its equivalents to indicate omissions from author statements which appear in publications written in nonroman alphabets; (3) the failure to require grammatical connection of titles and author statements when linking terms such as "by" are not present in the source of the description; and (4) the use of "i. e." added in brackets after a personal name in an author statement to relate that name to a main entry heading when it is not apparent that the two names refer to the same individual.

Included among the remarks about rule 135 (Edition area) was the comment that it "would be better if the code settled for one place for authorship relating to illustration," since "not many libraries have the resources to determine if the illustration relates to one or all of the editions of a given work."

One national library has decided to disregard rule 136D, which stipulates that publication data for the reprint or facsimile in the case of photographically reproduced reprint or facsimile editions containing only the original title page should be revealed in imprint position with the publication data for the original displayed in a note. Instead, its catalogers are instructed to record the place of publication, publisher, and date of the original work in the bibliographic area immediately preceding the imprint area.

Respondents pointed out two shortcomings with regard to rule 137 (Place of publication): first, it was noted that the revised rule makes no provision for the inclusion of a question mark with the place when the data element is a matter of cataloger’s conjecture. Second, the rule does not allow for the situation where several items, such as those in a collection of pamphlets with different publication locales are treated by a single description. One comment also suggested that the instruction to record the country, state, or similar designation with the place of publication when necessary to identify or distinguish it would require less judgment on the part of the cataloger if revised chapter 6 had included a list of place-names which did not require such additions.

Rule 138, which deals with the recording of publisher information, seems to have presented few difficulties to the cataloging staffs of participating libraries. One respondent, however, identified a problem concerning subrule 138D (Publisher as author), which states that "When the publisher ... is the author of the work, and the name appears in the title and statement of authorship area ... the name may be given in abbreviated form in the imprint." The provision is illustrated by the example: "Shadow dance / by Henry Clive Mackeson. — London : Mackeson, 1971." Yet, application of 138A (General rule) would suggest an imprint here which reads “London : H. C. Mackeson, 1971,” since it directs that “names known to be forenames are represented by initials.” (Presumably, that part of 138A which allows as an exception the omission of forename initials “in the case of well-known publishers” would not often pertain to personal authors who undertake to publish their
own works.) Interestingly, in *ISBD(M)*, the imprint for the "Shadow dance" example is recorded as "London : H. Mackeson, 1971." Also relevant to application of 138D is the adoption by one national library of a rule which reads: "When the publisher is a corporate body and is the author of the work, its name in the imprint is used in its full form."

With the appearance of revised chapter 6 came the redefinition of imprint date as "the year of publication of the first impression of the edition." The introduction of this notion seems to have disturbed some catalogers represented by participating libraries. Respondents for two institutions report decisions to deviate from the new rules on this point. One prefers the use of copyright date in place of the date of the first impression of the edition as stipulated in 139A, while the second has decided that "If there is a considerable time between printings (more than five years), and a work is in reality a new publishing, then the new printing date is used in imprint and a note about first printing is added."

Others that adhere to this provision also experience difficulty in applying it. For example, "It is difficult to determine date of first impression of edition when revisions appear in neither the first impression nor the last printing." Comments again point to the need for more examples to aid rule interpretation: "Rule 139 . . . could use fuller illustrative material in connection with each example of imprint date."

Some of the provisions of rule 141 have prompted strong objections to changes in the descriptive cataloging practices which relate to collation, especially those pertaining to pagination statements. Subrules 141B2 (Unpaged works) and 141B3 (Complicated or irregular paging) received the greatest criticism, because they require the cataloger to supply exact or appropriate counts. "We don't have time (or enough desk calculators)" to follow such procedures, indicated one respondent; several others echoed the sentiment of this protest. As a result, a number of libraries continue to follow the more readily applied provisions of the original chapter 6 when dealing with unpaged or irregularly paged works. As for other comments on pagination as treated in the new rules:

141 . . . Preliminary note, last sentence may result in more flexible interpretations than desirable for standardization.

141B. If part of [a] work is numbered as leaves and part as pages, how is this to be shown?

141B1 . . . Rare book cataloger desires provisions for unpaged preliminary and intermediate matter, which [is felt to be] lacking in the rule.

. . . 141B1a "leaves" vs. 141B1d "leaves of plates." The definition for leaves with text leads one to assume that leaves of plates should be printed on only one side. It would be preferable to specify leaves of plates (counted as pages) and leaves of plates (counted as leaves).

141B1d. Seems little value to indicate 1 leaf of plates, such as a frontispiece; could not frontispiece be used in collation more effectively?

. . . 141B1d: Would help if definition of plates were spelled out in the rule rather than only in the glossary since it is different from the common definition.
Covering illustrative matter, size, and accompanying materials, the remaining aspects of rule 141 elicited little reaction from respondents. Two of them supported modification of 141D to provide a statement that “plates are to be included in the illustrative part of the collation, even though they have been accounted for in the pagination,” because, “although the cited examples make this principle reasonably clear, an explicit statement to this effect can eliminate any ambiguity.” Five libraries report that cataloging produced by their staffs does not display information about size; therefore, in adopting revised chapter 6, they disregard rule 141E. Finally, with regard to the technique that is given in rule 141F for representing accompanying materials as an element of the collation data for works to which they relate, one library states: “[We have] recently computerized [our] circulation system and [have] not yet programmed for accommodating this rule.”

Rule 142 which concerns transcription of series statements is complex, because it seeks to cover the variety of manifestations which such data may assume. It is therefore not surprising that respondents have encountered difficulties in applying this provision. Some complained about “wordiness [that] leads to confusion upon first reading”; however, many more recommended expansion of the passage to include additional examples, particularly a few “showing distinction between subtitles and subseries.” Most questions raised involved subrule 142E (Author in series statement). For example,

How is the author of a multi-volume monograph recorded in the series statement when this author is not the same as the author of the individual part being cataloged and the series author is not integrated with the series title? This situation arises with analyzed sets; the series title may or may not be generic.

In addition, subrule 142B was objected to as imposing an unnecessary cost on the cataloging process: “It saves work when dealing with incomplete sets to list series numbers in the tracing only, using ‘etc.’ in the series note.” Finally, two libraries have decided to avoid 142’s requirement that the International Standard Series Number (ISSN) be given as part of a series statement.

Rules 143 through 150 elaborate directions for the use of the notes area. It is with reference to these provisions that respondents’ appeals for additional examples were most frequently expressed. In addition:

1. Three respondents registered strong disapproval of the policy, set forth in the final paragraph of rule 143C, that “When, in notes composed by the cataloger or in notes recording bibliographical relationship . . . , it is necessary to mention an author’s name or a title which is in a language not written in the Roman alphabet, the name or title is given in romanized form only.” One of them argued: “This cannot be done in Chinese because one cannot
figure out the exact words of the author's name or a title, from the romanized form alone.” The second agreed, and the third, considering practical implications, suggested that all notes be given in the vernacular, since “by using the same language, a cataloger or typist can write . . . straight through without wasting time figuring out space allowances adequate for the words or characters.”

2. One national library holds that “the statement that a work is privately printed will appear in the publisher statement even if a publisher is not named in the imprint” in contravention of rule 143D3e, which implies that this information should appear as a note.

3. The same national library has rejected provisions of rule 146 (Thesis note) which omits the nature of the academic degree if that of doctor and the date of the degree when it varies from the imprint date.

4. A respondent felt that rule 147 (“Habilitationsschriften,” “Rektoratsreden,” “Programmschriften,” etc.) should have been elaborated to include “an explanation of the various types of academic treatises, addresses and essays with ample illustrations and distinguishing characteristics” and that the glossary should have provided entries for each of these types.

5. One respondent objected to that aspect of rule 148A (Informal contents notes) which stipulates use of the convention “Includes index[es]” if appropriate, because it “adds another line to the catalog card and isn’t worth the space it takes.” Also related to application of 148A are the decisions of two libraries to disregard the requirement that inclusive pagination of bibliographies, discographies, and filmographies be indicated when such items are noted to reveal their presence in works cataloged.

6. Four libraries report decisions not to apply rule 149, which adds to the bibliographic description the International Standard Book Number (ISBN) “recorded as found in the publication.” In addition, three respondents criticized subrule 149B, pertaining to the case of works issued in several volumes. One felt that “listing individual ISBN’s for each volume in a set can become unwieldy.” The second scored the provision for its lack of examples to cover complicated volume numbering. And, the third also held it to be inadequate, asking “where is the ISBN for the complete set [to be] recorded?”

One or more libraries have rejected the first four of the six “Special Rules” which conclude revised chapter 6. Two of the participants do not follow rule 152 (Issues and photoreproductions treated as such), and two disregard part or all of rules 153 (Off-prints) and 154 (Detached copies of parts of works). Two libraries avoid the so-called “dash-on” technique presented in rule 155 “for the description of continuations, supplements, and indexes which, under the provisions of 19A [Related

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works with dependent titles], are to be made part of the cataloging of the works to which they are related." Presumably, other libraries surveyed that are engaged in or contemplate computer-assisted processing of bibliographic data will follow suit, since the U.S. MARC format does not accommodate the practice detailed in this rule.

Rule 156 (Photoreproductions to be described as such) is the last of the provisions of revised chapter 6 to have elicited substantial comment from respondents for participating libraries. Several complained that the preliminary note to the rule does not clearly establish its scope and indicated that its directive to catalog reprint and facsimile editions "under the general rules for monographs, serials, music, etc." causes confusion. "My catalogers would like [the] rules applying to facsimiles, reprints, and photoreproductions clarified." "Amplified guidance on reprints" is needed. "Reprints have never been adequately treated as a distinct category." "I still have trouble knowing what to treat as a photoreproduction." In addition, many respondents stressed the desirability of more examples to illustrate the various provisions of this rule—with specific requests for one to demonstrate the treatment of publications issued by the National Technical Information Service (NTIS) and one to "show the case of pagination for the original being one thing and the reproduction, often on double leaves, another thing." It remains to note the decision of one library to disregard subrule 156B3 to the extent that it permits omission from the physical description for microreproductions of size whenever size conforms to established standards such as microfilm, which is thirty-five millimeters in width.

Acknowledgment

The authors wish to express appreciation to Maria G. Larson of the Princeton University Library for her assistance in compiling data from returned questionnaires.

REFERENCES


3. The Library of Congress explains the origins of its practice as follows: "In Bulletin 110 it was stated that in the cataloging of publications with imprint dates between 1501 and 1800, modifications might be required in the application of those provisions of chapter 6 that stem from the ISBD (M). Subsequently, the Library experimented with the application of these rules to books of this period and concluded that such application would be impractical. Therefore, books with imprint dates between 1500 and 1820 are being cataloged according to provisions of the original chapter 6" (Cataloging Service, 11:3 (Fall 1974)). In assessing this policy, one respondent commented: "It is unfortunate that the old Chapter 6 is being retained for pre-1820 imprints as this implies the continuance of 2 sets of rules; new rules for this category of material would be welcome."

Volume 21, Number 1, Winter 1977 • 57 •
The problem of entry for serial publications is reexamined in view of recent developments and proposals. A possible solution to the problem is suggested, which takes into consideration the compatibility between AACR and international standards for serials as well as the integrity of the catalog.

RECENT DEVELOPMENTS in serials record control on the international level have necessitated a reexamination of the rules for entry of serial publications in the Anglo-American Cataloging Rules (AACR). The Guidelines for ISDS (International Serials Data System), which has become an essential tool in bibliographic control of serials on the international level, is in direct conflict with AACR with regard to the choice of entry for serial publications. The Guidelines for ISDS requires the listing of serial publications under the key title, while AACR requires entry under corporate authors for certain serial publications. This fundamental difference has recently become a major topic of discussion in library literature. A resolution is urgent in view of the development of the CONSER project and the revision of AACR.

The discussion formally began with articles by Howard and Spalding which express opposite views concerning the choice of entry for serial publications. Howard points out a major problem: “The difference in entry between AACR and the Guidelines for ISDS is a major problem when it becomes involved with changes in serials because ISSN’s are assigned on the basis of title (rather than bibliographic entry) and a new ISSN is assigned only to a new title, not to a new entry which, under AACR, may be made for either change in issuing body and/or title.” The incompatibility cannot be resolved short of a drastic revision in one or the other document. Howard has illustrated the difficulties and inconsistencies in the application of AACR rule 6. It is therefore considered more appropriate to revise AACR 6 rather than to attempt to instigate changes in the Guidelines for ISDS. Howard proposes two alternatives...
for the revision of *AACR 6*: to enter all serial publications under their titles, or to enter all serials under title with certain exceptions for entry under issuing bodies. The first alternative will solve the problems pointed out by Howard; the second, obviously a compromise, reduces the number of serials entered under corporate bodies, but some of the problems remain unsolved.

Spalding, on the other hand, points out that arbitrary entry of all serials under title "introduces an element of irrationality into cataloging with the proposition that if a product of corporate activity is issued in monographic form, the body is to be considered responsible but if it is issued in serial form, it is, in effect, anonymous." Furthermore, the proposal has the "effect of completely undermining the theory of corporate responsibility as justification for main entry—not just for serials but for monographs as well." Spalding opposes the proposal for cataloging rule change which is necessitated simply by the problem in handling serials caused by the use of key title as instructed in the *Guidelines for ISDS*. He indicates that if "those who process incoming serial issues and those who store them can do their work better by using the title as the means of organizing the records and the stock of serial issues, they should do so." However, this would create a great discrepancy and inconsistency between serials records and cataloging entries for serials in a library, a situation which would no doubt cause other new problems.

In the wake of rapid developments in the CONSER project and the progress toward the second edition of *AACR*, the discussion begun by Howard and Spalding concerning the rules for entry of serials has been intensified in recent months. The fall 1975 issue of *Library Resources & Technical Services* contains seven papers on the subject of serial control, and *Drexel Library Quarterly* devoted one issue to the topic of serials librarianship, including discussions on serials cataloging.

In these discussions, various proposals have been put forth and two basically different positions have emerged: retaining the concept of authorship for serials or adopting title main entry for all serials. Simonton has summarized the theoretical arguments for these two positions.

Among those advocating title main entry for all serials, Cannan points out the inevitability of the revision of rule 6 to require entry for all serials under title in order to conform to the newly established international standards—*Guidelines for ISDS* and *ISBD(S): International Standard Bibliographic Description for Serials*—and Price discusses the international implications of the choice of entry for serials based on the concept of the responsibility of authorship as manifested in *AACR*, and the reasons for promoting the use of a consistently applied rule of always entering a serial under its title as advocated by the *Guidelines for ISDS*.

Cole reviews the present rule 6 in *AACR*, North American Text, pointing out its ambiguity and the resulting problems in interpretations. He advocates the deletion of 6C and the adoption of 6B of the
British Text, which would result in greater consistency and fewer serials entered under corporate authorship. This position is similar to Howard's second proposal.

While not all the authors endorse title main entry for all serial publications, there is a general agreement that AACR rule 6 in its present form leaves a great deal to be desired. All of the proposed revisions result in reducing the numbers of serial titles entered under corporate authorship.

Although the Guidelines for ISDS is not concerned with the choice of entry, the fact remains that, being a set of rules which prescribe how serial publications are to be listed in an international registry of serials, it serves essentially the same function as a set of rules prescribing the choice of entry. The key title concept in the Guidelines for ISDS has provided an impetus and a strong argument for title main entry for all serials.

At the 1975 ALA Annual Conference, the Catalog Code Revision Committee voted to propose to the Joint Steering Committee that title main entry be uniformly required for all serial publications. However, the committee's position has wavered since then. A decision was made by the committee at the ALA Midwinter Meeting of 1976 to withdraw its request for arbitrary entry of serials under title, providing the use of corporate authorship is restricted.

Title main entry for all serial publications, in addition to its contribution toward conformity with international standards, would also result in greater agreement and compatibility between catalogs and abstracts and indexes, which generally list and cite journals by titles.

On the other hand, in considering title main entry for all serials, the problem of maintaining the integrity of the catalog becomes a major issue. In striving to achieve compatibility with international standards for serials, we incur the danger of creating incompatibility in the treatment of serial and monographic publications within the same catalog. Fasana views the recommendation to replace AACR 6 by the conventions for description of serials outlined in ISBD(S) as "irresponsible and indefensible on both a theoretical and practical level" and, arguing against "arbitrary title entry," states that the "recommendation to abandon AACR 6 should be rejected because of the adverse impact it will have on the quality, integrity, and continuity of existing library catalogs and library collections."

Carpenter also asserts that special rules for entry of serials should be abolished, and that a serial should be treated like any other work with regard to authorship.

Gorman proposes, as a solution to the problem of the integrity of the catalog, the creation of separate files—a general bibliographic catalog and a serials list—based on different cataloging rules for the treatment of complete and not-complete publications (including serials). Vassallo echoes the suggestion, asserting that "in most situations where serials are concerned, the integrity of the card catalog is fictitious because of local conditions."

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A divided catalog (separating serials from non-serials or monographs) has its advantages. However, the major difficulty lies in the fact that the distinction between a serial and a non-serial is not self-evident, to say the least. Gorman's proposal to treat quasi-monographic items and part works issued in a large number of regular issues but with a definite concluding date in the same way as serials would result in cataloging a multivolume encyclopedia (e.g., Encyclopedia of Library and Information Science) as a complete or a not-complete work depending on whether all the volumes have been published at the time of cataloging, a criterion which will not ensure any consistency at all. Furthermore, since the distinction between a serial and a non-serial is not clear, even with separate files, linkages between the files will be required. References will be necessary in the general catalog to guide the users to the serials list, particularly in the case of quasi-serials. Therefore, compatibility between entries for monographs and those for serials is still mandatory. If title main entry were applied to all serials without corresponding changes in the rules for monographs, the discrepancy, or what Spalding calls the "element of irrationality," between the rules for serials and those for monographs would be even greater than now.

The issue of title main entry has not been limited to serial publications. Recently there have been discussions favoring title main entry for all publications, including both serials and monographs. Hamdy has presented a thorough treatment of the problem, weakened only by his attack on the necessity of main entry itself, because the "title unit entry" which he proposes is in essence main entry under title. In a multiple-entry listing, the distinction between the main entry and other entries may not be obvious. However, in single-entry listings, of which there are still many, the requirement to select a single entry is inevitable. Hamdy's advocation of title main entry is theoretically convincing, but it ignores a major aspect of the problem, i.e., the tradition of scholarly practice from which the concept of authorship in main entry is derived. In addition to the theoretical and practical problems which have been pointed out by Spalding, title main entry for all publications will undermine this tradition and conflict with the current practice of scholarship in the Western world. Although the title has been traditionally the main element of bibliographic identification in the Orient, particularly in ancient times, the Western tradition, probably derived from the classical Greco-Roman tradition, has emphasized the author as the chief element of identification of works. Classical works have always been identified by their authors—Homer, Plato, Herodotus, etc.

On the other hand, the concept of authorship was not stressed in the Germanic tradition. Many of the Germanic sagas, Anglo-Saxon poems, and early epics and tales, for example, are anonymous, constituting the bulk of what is known as "anonymous classics." The concept of authorship continued to be vague and diffusive in the Middle Ages. However, since the Renaissance, the practice of identifying works by their authors, representing perhaps a revival of the Greco-Roman tradition, has
prevailed in Western scholarship. This concept of authorship was no doubt strengthened by the invention of printing, which affirmed the authors’ rights in literary property. Even in the Orient, modern works are now mostly identified by their authors, perhaps as a result of the influence of Western practice.

The practice of assigning main entry under the author in library catalogs can be considered a conformity to the scholarly tradition. The citation pattern in scholarly works of almost all disciplines is by authors’ names for works of known authorship. In the text, references to citations are usually made through authors’ last names, with the full bibliographic information being provided in the footnotes. Footnotes and bibliographic references are generally listed by authors to correspond to the citations in the text. This practice is demonstrated in scholarly books and journals in almost all fields, and is so widely accepted that a few examples will suffice as illustrations. The following style is specified and illustrated in *Handbook for Authors of Papers in the Journals of the American Chemical Society:*


The University of Chicago Press style manual also recommends entry under authors for works of known authorship in bibliographies and footnotes. Entry under title is used only when there are no ascertainable authors.16

It is apparent that the author principle is too deeply imbedded in the Western scholarly tradition to be discarded overnight. Since scholars are accustomed to identifying works by authors’ names, this practice is not likely to be changed readily simply because the cataloging rules are changed. A case in point is Hamdy’s book itself, which proposes “title unit entry.” The bibliography at the end of the book lists works by titles, true to the principle proposed by Hamdy. However, in the text, works are cited by authors’ names, and the footnotes for works of known authorship begin with the author’s name also. As a result, the bibliography offers practically no help in readily identifying a citation such as “Pettee opposed Hanson in 1936,” with the footnote “88 Pettee, op. cit.”

Thus, we are facing a dilemma. If we abolish the concept of authorship in main entry, we shall abandon a deep-rooted practice in the Western tradition of scholarship. On the other hand, if we retain the author principle in main entry, the problem of entry for serials remains unsolved. A satisfactory solution to the problem should be one that can resolve the differences between the *Guidelines for ISDS* and *AACR* and yet does not create incompatibility between the rules for entry of serials and those for monographs within the same code. Compatibility is necessary here if the integrity of the catalog is to be preserved. Hence, the
proposal for title main entry, either for all publications or for serials only, leaves much to be desired.

If one examines the issues closely, one notices that the crux of the problem relates to corporate authorship. It is the rule for entry of certain serial publications under corporate bodies that is causing the discrepancy in their treatment between AACR and the Guidelines for ISDS. It is here proposed that the problem may be solved by eliminating the provision for main entry under corporate authors while retaining main entry under personal authors.

Corporate authorship, unlike personal authorship, is a latecomer as an element of bibliographic identification. As Koel has pointed out, “the concept of corporate authorship is a relatively recent phenomenon in the history of cataloging. The first major code to prescribe corporate author entries was published in 1841, as a part of the Catalogue of Printed Books in the British Museum.” Early bibliographies and catalogs did not provide for entries under corporate bodies, nor did Germanic cataloging practice prior to the Paris Principles. As a result of the influence of library cataloging practice, corporate authorship has gained a certain degree of acceptance in scholarly citations. Writers’ manuals are too numerous to be discussed individually here. A comparison reveals that while citation by personal authors is a universal practice, ways and forms for citing works by corporate authors vary greatly. A few examples are presented below. The University of Chicago Press style manual recommends entry under corporate authors for the reason that “a reference to a book should begin with the element under which the reader may expect to find it in a library catalog, usually the name of the author or of a government agency or corporate body standing in place of an author”:

Association as “author”


As a result of its recognition in the University of Chicago Press style manual, corporate authorship has gained acceptance in certain disciplines, particularly in the fields of the humanities which follow the

* The number of serials entered under personal authorship is extremely small. In this regard, it should be noted that the concept of “serials by a personal author” (AACR 6C) represents a contradiction in terms. AACR defines a serial as a “publication issued in successive parts bearing numerical or chronological designations and intended to be continued indefinitely.” No personal author can possibly be associated with a serial indefinitely, intentionally or unintentionally. Serial-like publications by personal authors can better be considered as sets rather than as serials. In their discussions cited above, both Simonton and Cole favor the elimination of entering serials under personal authorship.

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manual. Nonetheless, the acceptance of corporate authors as the chief element of bibliographic identification is far from being universal. The American Chemical Society handbook, for instance, provides the following form for a work of corporate authorship:

Government Bulletins —


The American National Standard for the Preparation of Scientific Papers for Written or Oral Presentation, although containing no rules prescribing the forms of citations, lists bibliographic references in the following forms:


The American Institute of Physics style manual provides several examples of footnotes entered under personal authors, but makes no mention of any corporate authors.22 Tate, in a study of main entries and citations, concludes that "the corporate author baffles those who prepare citations, and with reason. Most writers seemingly prefer a personal author or a title to a corporate author."23

From the point of view of cataloging, as an entry element, corporate authors have always presented problems. Lubetzky's attack on the corporate complex resulted in a thorough examination of the problem prior to the Paris Conference. Although the Paris Principles include specific guidelines relating to corporate authorship and corporate main entry, criticisms and discussions following the publication of the AACR and other cataloging codes based on the Paris Principles have demonstrated that the rules for works of corporate authorship are open to diverse interpretations and are therefore unsatisfactory. Verona's recent study on corporate headings in catalogs, national bibliographies, and cataloging codes of many countries reveals the chaotic state of corporate authorship:

Among the great number of cataloguing codes recognizing corporate authorship, it is scarcely possible to find even two which interpret the concept in the same way.24

One major problem is the lack of even a general agreement among different codes as to the definition of corporate authorship. Koel has pointed out the difficulties in applying the concept of corporate authorship in cataloging which derive from the lack of a generally agreed upon

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theoretical basis. Variation occurs even among different codes used in the same country. For example, the U.S. Federal Council for Science and Technology Committee on Scientific and Technical Information (COSATI) standard goes one step further than _AACR_ in recognizing corporate authorship by requiring the entry of technical reports under the names of the authors’ employing institutions. As Truelson has pointed out, the result is that a given work will appear under the personal author’s name when published as an article in a journal or as a monograph, and under the corporate name when the COSATI rules are applied.

There are many problems involved in interpreting and applying _AACR_ rule 17 concerning works of corporate authorship for monographs. For one thing, the determination of entry is based on the content of the publication rather than on bibliographic elements such as the statement of authorship, presentation on the title-page, etc., which are the bases of the other rules for entry. The criterion used in rule 17 is the degree to which the work expresses the corporate thought or activity of the body. In practice, this criterion is open to different interpretations. If the rule presents problems to catalogers, it is unrealistic to expect the user to be able to fathom the mystery. Since corporate authorship presents both theoretical and practical problems, a reconsideration of the rules relating to entry under corporate authors seems to be in order.

One of the results of abandoning main entry under corporate authors would be large numbers of main entries under generic titles. This issue has been dealt with in the discussions cited above concerning title main entry for all serial publications. The procedures suggested there may be adopted for monographs with generic titles.

The present proposal—that corporate bodies shall not be considered as possible main entries—is based on a redefinition or reinterpretation of the term “corporate author” as representing multiple rather than single authorship. Since according to the present rules works entered under corporate authors are those expressing corporate thought or activity, they should more appropriately be considered works of multiple authorship, in the sense that a corporate body always consists of a group of individual persons. In fact, _AACR_’s definition of corporate body includes the phrase “a group of persons.” In general, the Paris Principles favor title main entry for works of multiple authorship. The recent revision of _AACR_ 4–5, resulting in title main entry for works produced under editorial direction and for collections, further affirms this principle. In fact, main entry under title for serials not of corporate or personal authorship in the present code is based not so much on the anonymity of their authors as on the fact that authorship is divided among multiple authors. By assigning corporate authorship to the category of multiple authorship, works presently entered under corporate authors will be assigned title main entry. This realignment will bring greater consistency.
as well as simplify and reduce drastically the number of rules for entry in AACR.

This proposal represents not so much a denial or abandonment of corporate authorship as a shift of emphasis from corporate authorship to title as the main element for identification, i.e., the main entry. In multiple-entry catalogs, corporate authors should continue to be represented by added entries as in the case of personal authors not used as the main entry. In this sense, the users of library catalogs will not be affected by the revision. On the other hand, this proposal will solve the problem of serials control by bringing about a compatibility between the cataloging rules and the Guidelines for ISDS, while ensuring the integrity of the catalog and keeping intact the concept of personal authorship which is the essence of the Paris Principles and is deeply rooted in the scholarly tradition.

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19. Ibid., p.378.
Technical services librarians, as well as educators, have an interest in the background given those who enter the profession at the beginning level. An elective course available to students at the University of Michigan is described.

IN 1972/73, SHARING A CONCERN about the academic preparation of professional library personnel, the Resources and Technical Services Division joined with the Library Education Division in establishing a Committee on Education for Resources and Technical Services. The charge given to the committee was "to investigate the coverage of resources and technical services in library schools; to develop a statement of the kind of education in these fields which is considered essential; and to seek all appropriate means for furthering such a program."

A device which immediately suggests itself is a tallying of the technical services courses listed in library school catalogs. However, the mere listing of a course does not mean that it is given on a regular basis; and, in general, little can be deduced about the content of a course from the necessarily brief description given in the catalog of the school. A casual reading of such catalogs indicates that a variety of subject matters and approaches may appear under the title "Technical Services." Some schools seem to offer a course designed to prepare practitioners: "Instruction in basic procedures for technical services" (Drexel); "Techniques and routines in the acquisition, preparation, reproduction and circulation of library materials" (Catholic University); "Operations involved in acquisition, cataloging, preparation, circulation and conservation of library materials" (North Texas). In others, the emphasis appears to be on the administrative side: "Theory and practice in the management of technical service operations" (Pittsburgh); "Administrative principles, techniques, and problems" (Kansas State). In some cases, the term
"technical services" seems to be used for a course in cataloging: "Theory and methods of organizing book and non-book materials; a study of classification, cataloging and choice of subject headings" (San Jose); "Includes the application and adaptation of basic cataloging and classification to specialized collections" (Western Michigan); "Including a study of ... descriptive and subject cataloging" (North Carolina).

Where a school does attempt to give a course of study in technical services, some boundaries are already determined. The statement adopted by the ALA Council on "Library Education and Manpower" observes that "professional tasks are those which require a special background and education on the basis of which library needs are identified, problems are analyzed, goals are set, and original and creative solutions are formulated for them, integrating theory into practice and planning, organizing, communicating, and administering successful programs of service to users of the library's materials and services." The manpower statement later speaks particularly of education at the beginning professional level: "The objective of the master's programs in librarianship should be to prepare librarians capable of anticipating and engineering the change and improvement required to move the profession constantly forward. The curriculum and teaching methods should be designed to serve this kind of education for the future rather than to train for the practice of the present." If the school hopes to have its program accredited by ALA, it must meet the Standards for Accreditation, 1972, which assert that "the programs of the school should provide for the study of principles and procedures common to all types of libraries and library services."

No class had been offered by the School of Library Science of the University of Michigan under the name Technical Services until 1974, when a course was designed for team teaching by two members of the faculty, one with experience in acquisitions work and the other with experience in cataloging. Since the course has now been given through two academic years for a total of four presentations, it seems fair to offer a report on our rationale, the content of the course, and student reaction.

While most graduates of library schools go out to their first jobs to work under the supervision of someone else, or at least on a staff where other professionals are employed, this is not always the case. Some new graduates go to small public libraries where they are the only professional; some go to special libraries; some are employed in school libraries which are not part of a centralized system. These alumni sometimes wrote back to us to say that they felt at a loss in their first positions in dealing with problems of ordering, recording, processing, buying equipment, designing circulation procedures, and so on.

Another group which felt the lack of sufficient preparation in some of these areas was made up of students who went to work in the acquisitions departments of large university libraries; they would have liked to
know more about publishers, jobbers, booksellers, supply arrangements, and the problems of special types of library materials. One such group of alumni submitted to the school’s Curriculum Committee a proposed course in acquisitions, and many of their suggestions have been incorporated into the present offering.

The course in technical services attempts to take account of these various criticisms and suggestions, and also to fill in some gaps in our curriculum. Accepting the definition of technical services as (in the words of one current student) “everything that happens before the material circulates,” we found a number of areas which needed attention in the new course. Cataloging, we felt, was and should be covered in courses devoted to that subject. Selection of materials, both print and nonprint, was also covered in other courses.

From the beginning of an organized program in librarianship at Michigan, a course was offered in Selection and Ordering; the name was later changed to the Bibliography and Principles of Book Selection, and still later to Building Library Collections. The amount of acquisitions information included in this course has varied, depending on the instructor, the experience of the students, and changes in the philosophy of the program. Cataloging and classification have always been part of the curriculum, and a course in reprography is now offered regularly. Courses in publishing, circulation systems, serials work, and administration of the catalog department have been offered at one time or another, but none of these now appears in the school’s bulletin.

The technical services course outline therefore includes a number of acquisitions topics, such as bibliographic searching, blanket orders and approval plans, cooperative acquisition and storage, gifts and exchanges, ordering, invoice and payment procedures, and retrospective buying. Among the cataloging topics are binding, book catalogs, card preparation, cooperative and commercial processing, file maintenance, preparation or processing of materials, and reclassification. Since only about half the class hours can be allotted to these topics, a selection must be made. The remainder of the class time goes to the study of serials acquisitions and processing, automation of technical services procedures, organization and administration of the technical services department, cost of and budgeting for its operations, and circulation and security systems. Papers or projects done by students may cover any of the topics not discussed in class plus a wide range of other problems, from the acquisition, storage, and circulation of a special type of material to architectural planning for technical services.

We have not attempted, with any of these topics, to discuss actual routines, forms, or procedures, except in such a way that the student without experience can get an idea of the information needed, the activities which must be performed, or the qualifications required for particular jobs, suppliers, or systems. We have tried to keep our sights on the basic functions; that is, what are the essentials, for the one-person
organization as well as for the elaborate automated system.

The format of the course is varied. Some topics can be handled by a combination of lecture-seminar, some by reading and discussion. A number of tours or field trips are part of the course, and we are fortunate to have at hand a public library and a school district processing center as well as the automated systems of the University Library. Some topics can be discussed most capably by outside experts: the University Library’s associate director for technical services speaks with feeling on the problems of cost and budgeting for technical services, and jobbers’ representatives have given detailed, unbiased discussions of their work and what they offer. Some things need to be seen to be understood; one of our most popular presentations is that given by the university’s binding consultant, who displays materials, examples, the processes of hand and machine binding, simple mending, and document restoration.

Student evaluations of all courses in the school are carried out regularly toward the end of each term. As the course in technical services was a new offering, we were particularly interested in how it was received by the students. In general, the comments have been encouraging, and some of the criticisms could have been predicted; that is, some students would have liked very specific directions on how to order every item in every different type of library rather than general discussion on the information which must be given to the dealer, records which must be retained by the library, and other matters which are the concern of all libraries regardless of size or orientation. Some of the students who did not have technical services experience would have liked the course increased to double the number of credit hours, with field experience scheduled as half of the requirement. Some students simply do not seem to be ready for the seminar-type classroom experience and would have preferred a structured class period of the more familiar lecture-recitation form.

Most of the reaction to the course has been favorable. Students have enjoyed the varied format of field trips, discussion, case studies, visiting speakers, etc. They have gained from the wide range of readings available, although they requested some guidance in choosing from this material; in response, reading lists have been prepared for a number of topics, and an annotated bibliography of the general subject is now in preparation. The seminar form, in which anyone is free to contribute, has proved valuable for both students and instructor.

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3. Ibid., p.341.
In 1972 and 1973 the University of Guelph Library used machine-readable files of its collections to take inventory. Computer-produced, optically scannable documents were marked by a team of students. The resulting machine-readable files of missing books were run against circulation files and matching items eliminated. The operation involved no interruption of library services or routine. It was shown that the installation of a book detection system had reduced losses to 0.5 percent for the year.

Since library inventories are well known to be expensive, disruptive, and time-consuming operations, the University of Guelph determined to find a cheaper, simpler, and quicker method than conventional ones in use. The purpose in taking inventory was to test the effectiveness of the 3M book detection system which was installed in the McLaughlin Library in the fall of 1972. It was therefore necessary to take two inventories, one during the summer before the installation of the system, and one a year later.

A review of the not-extensive literature on the subject revealed that the conclusions reached in a 1958 survey of inventory practices still applied. For a library of more than 100,000 volumes, the advantages gained by full inventory by conventional methods are far outweighed by the cost in money and inconvenience. One large library solved the problem by taking a pilot inventory of 1 percent of the collection, and another by undertaking a long-term one which would fit into routine. A smaller library which considered the exercise valuable still mentioned "imposition on users" and "staff fatigue."  

Since 1966 the University of Guelph Library has been creating a machine-readable catalogue of its monograph holdings (including nonprint media). In 1967 the Guelph document system was developed and in
1968 a serial union list was begun. This meant that records of all the library collections were in machine-readable form. The circulation and acquisition systems were also automated. The extent of the library's automation made it possible to consider other than the standard library methods of inventory using the shelflist.

After considerable investigation, the use of a computer-produced optically scannable document was chosen as the basic method. The use of this aid considerably reduced the manual effort, allowed the use of less highly trained staff, and facilitated the final collection and correlation of results.

The optical scanning sheets were designed to allow easy recognition and marking (see Figure 1), by putting the most-used items at the left of the sheet and the marking area to the right, so that the normal left-to-right scan of the page was retained. Call numbers and titles, which can usually be read without removing the volumes from the shelves, appear on the left, copy and volume numbers are next in order, then author, file sequence numbers, and location codes. It might be argued that the location codes should be more prominent, but in fact they were little used because it was possible to programme for separate sheets for inventory in special locations such as the Ontario Veterinary College Branch Library and Restricted Circulation. A mark in the first of the columns on the right denoted “book on shelf,” and one in the second “book missing.” The third column was provided in case of error. A mark here would cancel a mark in another column and the blank column would be recorded.

Eight students were hired for the three-month period May through July. (Guelph has a three-semester system and student enrollment is normally lower during the spring semester, May–July. As a result, May–July was chosen as the best time for a stock-taking operation.) One month was allocated to monographs, and the objective was to gain accurate statistics on monograph losses. Detailed holdings of serials, including government publications, change rapidly, and since it was known that these were incomplete at the time of inventory, statistics on losses would be less reliable. Excluding rare books and reserve books, the records on the monograph file represented 284,455 volumes in 1973. This required checking about 14,000 volumes a day.

We were fortunate in hiring students with some experience in library work, including one library school student, and no more than a day’s instruction was required. The students worked in pairs, one person reading call numbers from the shelves and the other marking optical scanning sheets piled on a book truck which could be moved along to keep pace with the shelf reader.

Once the marking had been done it was unnecessary to keep the sheets in order. The only books touched were a small number which were not on the lists. These were sent to the Catalogue Department and usually proved to be new books whose records had not been added to the
**Figure 1**

*Optical Scanning Sheet*
machine-readable file by the time the sheets were printed. Any difficulties or problems which arose were referred by the team leader to a cataloguer who acted as liaison officer but did not take part in the actual shelf reading. The operation was completed within the allotted time.

When the optical scanning sheets were processed, the resulting machine-readable file was run against circulation files and matching records were eliminated. Print-outs of missing books were then produced. Since some volumes were in use within the library at the time of the first shelf reading, these print-outs were checked twice against the shelves by library personnel, and records for volumes then on the shelves were so marked. By using the sequence numbers in the column on the right, these marked records could be eliminated from the machine-readable file and a final print-out produced.

The operation was a success. It was shown that losses from the McLaughlin Library, where the book detection system was installed, had been reduced to only .5 percent during the year, whereas the losses from Ontario Veterinary College Branch Library, where there was no detection system, were 2.7 percent for the same period. These figures were felt to be reliable since the inventory was thorough, with several follow-up checkings, and the average weekly circulation rate of 10,000 volumes during semesters showed heavy use of the library. In addition the library obtained further benefits. Errors in records in the machine-readable file and in the shelflist were corrected, and reference and acquisitions librarians were alerted both to individual losses which may have been unnoticed and to areas where losses were greatest.

During the inventory there was no interruption of library services and no change in routine. The cost of hiring students for one month was $1,826, and the cost of computer time, paper, scanning, ribbons, and print train for the monograph project was $4,488. The cost per volume, therefore, was a little over 2¢. Some of the regular library staff's time was used, but this is well compensated for by time saved in using the more accurate files which resulted and in having a more exact knowledge of the state of the collection.

Conclusion

If it is necessary for any reason to take a library inventory, it can be done with a minimum of cost and disruption by using an automated system. It is also apparent that a partial inventory of selected areas could be accommodated using this method.

Certainly, the experience of the University of Guelph Library in taking inventory with an automated system is most favourable.

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An Approach to an Inventory of the Collections

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Inventories of university library collections are rarely taken today. The California State Polytechnic University Library conducted an inventory of three of its collections containing 286,409 volumes. The method utilized in performing the inventory is described and some of the benefits of the inventory are identified. The inventory itself produced useful information and statistics for the Acquisitions, Catalog, Collection Development Services, Reference and Circulation Departments and provided considerable means for improving public services.

GENERALLY ACADEMIC LIBRARIES HAVE ABANDONED the previously widespread practice of conducting a regular and systematic inventory of their collections. Heads of catalog departments have been known to retire to avoid the myriad problems anticipated from an inventory, and directors have suffered cardiac arrest at the thought of having to justify a high loss rate to a board of governors. The decision to inventory the collections of the California State Polytechnic University, Pomona, Library (Cal Poly) was made after careful consideration and analysis of possible benefits. Among the many advantages advanced for conducting an inventory were:

1. The Collection Development Services Department would have the opportunity to weed the collections.
2. The Catalog Department would have information in hand to correct errors in the public catalogs and in the shelflist.
3. The Circulation Department could clear "snags" on holds and searches and ascertain the effectiveness of the exit control.
4. The Processing Department could perform mending and repair to heavily circulated volumes.
5. The Acquisitions Department would have data to allow it to budget for losses.

Manuscript received October 1975; accepted for publication December 1975.

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6. Obvious mutilation could be identified and corrected or the volume replaced.
7. The number of errors being input to the machine-readable circulation data base could be reduced.
8. All public services departments could provide better service if the holdings were accurately reflected in the card catalogs.
9. The improvement resulting from the reading of the shelves would aid library patrons in locating material.

After consideration of these and several other factors, the decision was made to conduct the inventory. A previous inventory had been performed in 1969; however, the follow-up on that inventory had never been completed. University Administration approved the closing of the library for five days during the interim between the spring and summer quarters. It was necessary to publicize the closing and to provide notification of hours of operation of other libraries in the area. (The students, faculty and staff of Cal Poly may use any of the 40 libraries in the State with which the library has negotiated a reciprocal use agreement.)

California State Polytechnic University, Pomona, is one of nineteen schools in the California State University and Colleges system. Cal Poly's student population exceeds 12,500 students in 44 undergraduate and 13 graduate programs in arts, business, humanities, sciences, fine arts, agriculture, education and environmental design. The library had at the time of the inventory, 16-20 June 1975, 901,606 pieces under bibliographic control. The volumes to be inventoried, however, were located in the circulating, reference and bibliography collections consisting of 286,409 volumes.

The inventory preparations began with training sessions for the library staff. These sessions, conducted by the University Bibliographer, Catalog Librarian, and the Technical Services Librarian, covered the interpretation of holdings information as displayed on the shelflist card, directions on the type of materials to be recommended for weeding and the actual procedures to be followed in the performance of the inventory. On the weekend preceding the inventory, staff from the Catalog Department interfiled all cards from the Circulation Transaction Record into the shelflist. All shelflist trays were moved to a central control point near the bookstacks. These trays were maintained in call number sequence and a team captain was required to sign for each tray.

Utilizing 49 members of the appointed staff and 27 student assistant staff members working full-time, the inventory of the shelves was completed in less than three days. The staff was divided into teams of two members and each team had the necessary supplies and equipment awaiting its arrival on the first day of the inventory. This included a book truck, a tablet chair, a side chair, pencils and a supply of color-coded discard, inventory, re-letter and repair slips. The number of teams was reduced daily, and those team members freed from inventory of the shelves were re-assigned to such collateral tasks as typing labels, pulling tracings and reviewing discard recommendations.
The following section details the written instructions given to each staff member actually performing the inventory at the shelves. These were reviewed during a practice session at which time the staff members were encouraged to ask questions.

Inventory in this manner:

1. One member of the team is to read the call number from the shelflist card and give the accession information. The other member is to check the call number on the spine and examine the book as a candidate for weeding, repair or re-lettering.

2. Those volumes that require additional operations are to be handled according to these instructions:
   a. If the volume is not on the shelf, place a majuscule M to the right of the accession information and turn the shelflist card up—call number up.
   b. If there is no shelflist card for a volume, place an INVENTORY slip (green) in the book and check (/) no shelflist. Place the book on the truck.
   c. If there is an error in the holdings information on the shelflist card, place an INVENTORY slip (green) in the book and check (/) shelflist error. Place the book on the truck.
   d. If there is an error in the call number on the book, place an INVENTORY slip (green) in the book and check (/) error in call number. Write the shelflist call number in the space provided. Place the book on the truck.
   e. If there is a location error due to a superscription problem, place an INVENTORY slip (green) in the book and check (/) location error. Place the book on the truck. Location error does not indicate a transfer. This item refers to a book in the stacks that the shelflist indicates is located in Reference, Curriculum, Archives, etc.
   f. If the book does not belong to the Cal Poly Library, place an INVENTORY slip (green) in the book and check (/) alien material. Place the book on the truck.
   g. If the label on the book is not legible or is not properly adherent, place a RE-LETTER slip (yellow) in the book. Do not peel off the old label. Place the book on the truck.
   h. If the book needs repair (binding, cover replacement, loose pages), place a REPAIR slip (blue) in the book and place the book on the truck.
   i. If the book should be discarded, place a DISCARD (pink) slip in the book and check the appropriate note. Do not agonize over a discard decision as the bibliographers will review all discard recommendations. Place the book on the truck.
   j. If there is a circulation transaction card for a book that is on the shelf, place the charge card in the book and place the book on the truck.

A large reading area on the third floor was set aside as the inventory...
control point. Eight rows of study tables were utilized to array the 230 shelflist trays and to allow for the depositing of volumes from the bookstacks that required additional handling. As each team completed a shelflist tray, the tray was delivered to the control point. Several staff members were assigned the task of removing all shelflist cards with the notation that a volume was missing. These staff members also checked all cards in each tray and retrieved any cards with missing information that had inadvertently fallen down in the shelflist tray.

The books from the collections were deposited according to the color of the slips inserted in the books by the teams performing the inventory. Bibliographers from the Collection Development Services Department examined each book recommended for discard or repair. The bibliographers made one of four possible decisions on each title and recorded this decision on the slip in the book: (1) discard, (2) repair, (3) reorder, or (4) return to the collection.

Beginning in the afternoon on the first day of the inventory, the number of teams actually performing the inventory in the stacks was reduced. These staff members were assigned different tasks. The library assistant in charge of clerical services in the Catalog Department supervised the pulling of all catalog cards for books to be withdrawn and the correction of the volume count. Other staff were assigned to type labels for those books requiring re-lettering or to make repairs to books requiring mending. Still others were assigned to reshelve volumes or to search for the volumes marked missing.

The inventory was a successful project for the library. It was ascertained that 3,046 volumes were missing from the collections; of this number 165 volumes were from the Reference Department collection. It was learned that 30 shelflist cards were missing. Sixty-three volumes previously withdrawn as lost were located and re-added to the collections. Book Processing re-lettered 1,560 volumes and repaired 981 volumes. The collection was weeded of 2,968 volumes. The loss rate since 1969 was 501 volumes annually.

Was such a time- and labor-consuming project worthwhile? The staff of the library indicates that it was. The holdings of the library are accurately represented in the card catalog now. Collection Development has ordered replacements for titles deemed necessary to the library. The library will not include the missing volumes in the system's union catalog. The frustration of not finding a book has been reduced and all the shelves are in order. The number of cards removed from the catalog and the number of books discarded freed cabinet space and shelf space. Obsolescent titles were discarded. Service has been improved because of the inventory. Time spent searching for materials can now be dedicated to giving better service. Lastly, the library is armed with voluminous statistical and bibliographical information relative to what is stolen, which errors in processing are most common, the approximate cost of losses, the strengths and weaknesses of the collections and the out-of-print needs of the library.
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Division: Annual Reports, 1975/76

President's Report

This was the second year of transition and/or survival for the divisions of the American Library Association necessitated by the drastic personal dues restructuring. RTSD is surviving and is one of five out of the thirteen divisions not requiring subsidization during this transition period. Although numbering several thousand fewer members than previously, there is more money in the operating budget because of the personal dues change. This may not always be true, and therefore the division needs the continuous support of all of its members to help convince our colleagues that RTSD can play a viable and necessary role in their professional lives.

RTSD is healthy and active on other fronts as well. Having been an observer of and participant in the division's activities and those of its forerunner for the last thirty-five years, I have always been impressed with the number of committees and the number of meetings which these activities generate. This year was no exception. There were approximately 450 librarians (with some duplication) working within the organization in the following capacities: 18 as division officers; 180 on 20 division committees; 36 as officers of the four sections; 211 on 38 section committees; 18 representatives to other ALA or related groups; and 11 leaders of discussion groups. In addition, there are 25 regional groups working within the Council of Regional Groups, a very vital part of RTSD and a unit upon which the division needs to depend for continuing and increasing membership.

Not unlike those former ones, this year has been busy and progress has been made in many areas. This report will not attempt to enumerate "all the action" and certainly will avoid duplicating section activities which are recounted elsewhere. The division highlights will be reviewed to inform members and others about its work and to record the activities for future reference, since the minutes of the Board of Directors are not published but are retained at Headquarters in Chicago.

Publications

Only a small percentage of any organization's members can be actively involved at any given time, and so it is essential to keep the membership informed. The quarterly journal, Library Resources & Technical Services, continues to hold its respected place among the library periodicals and the division owes a debt of gratitude to Wesley Simonton, the editor, and his able assistants and advisers. Editing any publication is a labor of love, and we are appreciative of this.
service to the profession. Mr. Simonton's term as editor was extended another three years by Board action at its meeting in Chicago this past summer.

This year saw the birth of the RTSD Newsletter, volume 1, number 1, January 1976. The obvious purpose of this publication is to aid communication among the division members regarding the activities of the various RTSD units and of the Council of Regional Groups, and to aid in membership promotion. Four issues are to appear annually, hopefully between the issues of Library Resources & Technical Services. The Newsletter is being edited by Mary E. Pound, a former assistant editor of Library Resources & Technical Services, and will be sent gratis to all members of the division and to all Library Resources & Technical Services subscribers. My personal thanks go to Mary Pound for her willingness to assume this responsibility.

Committees

One of the most important and most diligent groups in the division at the moment is the Catalog Code Revision Committee (CCRC). This committee met for three days in October 1975 and innumerable times during the Midwinter and Summer Conferences. Code revision is progressing and after a somewhat lengthy input period, the editors are hard at work on rule revision proposals. Any decisions reached by CCRC are taken in the form of approved recommendations to the Joint Steering Committee for Revision of AACR. This group (JSCAACR) includes representatives of the British Library, the Library of Congress, the Library Association, ALA, and the Canadian Committee on Cataloging, which reflects the interests of the National Library of Canada and the two major professional organizations in that country. CCRC also continues to review proposals of other members of JSCAACR.

John Byrum, CCRC Chairperson, has been invited to participate in the IFLA reconstituted ISBD (S) Working Group. With RTSD and ALA approval, he has accepted. RTSD's interest in contributing to the discussions and decisions of IFLA led to the adoption of the following resolutions proposed by the Technical Services Directors of the Large Research Libraries Discussion Group:

- that RTSD establish an ad hoc committee to study issues involved in the development of international cataloging policies by international organizations and to propose methods to insure adequate consultation with the appropriate library organizations and individuals in the United States, and that RTSD request the Executive Director of ALA to investigate means whereby the ALA may serve as a distribution agency for the library community of the United States for publications of IFLA which deal with international cataloging policies.

The former Computer Filing Committee (CFC) became the RTSD Filing Committee at the Midwinter Meeting and is now accelerating its work on preparing rules for publication. Agreement was reached at Midwinter 1976 that the text for the publication will be based on the provisional version of the Filing Arrangement in the Library of Congress Catalogs (FALCC) by John C. Rather, although there seems to be little hope of publishing these rules concurrently with the second edition of the Anglo-American Cataloging Rules. Joseph A. Rosenthal, Chairperson, indicates that recommendations are made to CCRC on proposed cataloging rules which are at variance with the thrust of the work of this committee.

The Book Catalogs Committee submitted its manuscript, Guidelines for Book Catalogs, which the Board approved by mail ballot. The document has been submitted to ALA Publishing Services for possible publication. Joseph Fuchs, Chairperson, indicated that other commercial vendors are interested in publishing these guidelines as well.

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Library Resources & Technical Services
The Commercial Processing Services Committee, Dallas R. Shawkey, Chairperson, is concerned primarily with the preparation of guidelines for selecting commercial processors and is continuing its work on the possible publication of a draft entitled *Guidelines for Commercial Processing Services*. There is apparent need for such a publication based on the inquiries received.

The Board authorized the Preservation of Library Materials Committee to seek an author for its proposed handbook on book preservation and agreed to waive any royalties, allowing them to revert to the author. Pamela W. Darling, Chairperson, will negotiate on RTSD’s behalf with ALA Publishing Services for publication of such a handbook.

**Conference Programs**

The RTSD/AAP Joint Committee held two programs during the Summer Conference on “Reviews, Who Needs Them?” and the “Marketing, Selection, and Acquisition of Materials for School Media Programs.” Additionally, this joint committee continues to participate in other excellent programs and this trend was evidenced during the Centennial Conference by its cosponsoring with the Resources Section and other ALA units an all-day program on “The International Flow of Books,” an investigation of the state of the art of publishing around the world. The Summer 1975 program on “Book Marketing and Selection: A Publishing/Library Forum” was described in the Winter 1976 issue of *Library Resources & Technical Services*.

The division’s program for Summer Conference 1976 was cosponsored with the Cataloging and Classification Section and in honor of the centennial dealt with Melvil Dewey and Charles Cutter. Phyllis Richmond, Richard B. Sealock, and Benjamin A. Custer were the speakers. RTSD also cosponsored with other groups ASLA’s program on “Libraries to the People: The Past, Present and Future of LSCA.”

RTSD/ISAD/RASD Representation in Machine-Readable Form of Bibliographic Information Committee (MARBI) under the leadership of Charles T. Payne sponsored a program on “A National Union Catalog in Machine-Readable Form: What Should It Do—and How?”

The Preservation of Library Materials Committee’s program on “Preserving the National Heritage: The Administration of Library Conservation Activities” featured three speakers, Carolyn Horton, Paul N. Banks, and Frazer G. Poole. Additionally, small-group tours of the book and paper restoration facilities in the Chicago area were very popular.

The Technical Services Costs Committee, Maria G. Larson, Chairperson, and the Commercial Processing Services Committee cosponsored a program during the 1976 Annual Conference on “Costing Methodology: A Look at the Cost and Process Alternatives in Different Types of Libraries.”

Helen F. Schmierer, Chairperson of the Council of Regional Groups, conducted a workshop to review the roles of ALA and RTSD in standardization activities not only within the association but also those activities sponsored by other organizations such as the American National Standards Institute and the International Federation of Library Associations.

**Other Committee Activities**

A new standing committee was established in the division this past year. The former Ad Hoc Nonbook Committee became the RTSD Audiovisual Committee. Under the leadership of Pearce Grove, this committee deals with the acquisition, organization, and handling of AV materials in libraries, and must coordinate activities with other AV committees within ALA.
The Bylaws Committee, with Howard Sullivan as Chairperson, following the action of the ALA Council and as with all units in ALA, revised the Division and Section Bylaws to remove all sexist terminology. These bylaws changes were approved at the Division Membership Meeting in Chicago.

The Committee on Program Evaluation and Support has recommended to the Organization Committee that the division COPES be enlarged to include section representation, hopefully the Chairpersons, and the Chairperson of the RTSD Planning Committee. It also expressed concern about the ALA budgeting timetable because the March 1 deadline is not a realistic one since no firm information is available for board action at Midwinter.

The final report of the Ad Hoc Organization Study Committee was accepted by the Board of Directors and referred to the Organization Committee for implementation. The report particularly emphasized the need for better communication between the various sections and their committees and recommended improved liaison among all committees and sections within the division as well as with units outside RTSD. Further, the report recommended that the function statements of all sections and committees be reexamined for necessary improvement. The Committee was dissolved with thanks.

Upon recommendation of the Organization Committee, Doralyn J. Hickey, Chairperson, the Board established a new discussion group in the Resources Section, namely, the Chief Collection Development Officers of Large Research Libraries. Likewise, the RTSD/LED Committee on Education for Resources and Technical Services was enlarged from seven to eight members (four from RTSD; four from LED). This will permit a representative from each section of RTSD. In addition, the joint committee's statement of function was revised to read, "To study and review the educational needs of resources and technical services librarians; to explore and foster the development of curriculum and continuing education programs in the area; and to act as a catalyst in promoting communication between the profession and library educators."

The final report of the Ad Hoc Keyboard Committee was presented to the Board at Midwinter by Edward R. Johnson, Chairperson. Subsequently, the Board approved the report by a mail ballot and it has been forwarded to the American National Standards Institute for consideration by an appropriate committee of that organization as a U.S. national standard.

Awards and Scholarships

The Esther J. Piercy Award was presented during the Centennial Conference this past summer to Ruth L. Tighe. Ms. Tighe, formerly Assistant Director for Field Operations at the New England Library Information Network (NELINET), and now with NCLIS in Washington, DC, was recognized for her contribution to librarianship particularly as it related to automation activities in technical services.

A new award was established this year through the generosity of Arnold V. Santos, Vice President of National Library Service, Inc. This award in the form of a $1,000 scholarship honors the author or authors of the best published paper on acquisitions pertaining to college and university libraries and will be presented annually through the Resources Section to the library school of the author's or authors' choice.

In Memoriam

Paul Shaner Dunkin died on 25 August 1975. Paul, as he was known to so many of us, was a devotee of technical services and had served our division in
many capacities. He was president of RTSD and editor of *Library Resources & Technical Services*. Educator, scholar, author, editor, colleague, and friend—Paul Dunkin leaves a legacy for all of us to follow. His family has established the Paul Shaner Dunkin Memorial Fund at ALA Headquarters and the division was asked to take the lead in suggesting ways in which this fund might be used. A committee of the board, appointed to investigate possibilities, has recommended with board approval, to Robert Wedgeworth, executive director of ALA, that this fund be applied to a multi-media presentation of the second edition of the *Anglo-American Cataloging Rules* with appropriate credit being attributed to the memory of Paul Dunkin. Paul was very active in code revision and followed it with great interest. RTSD hopes that such a presentation can be developed which could be used at state and regional conferences and as teaching material for cataloging courses in library schools.

Another library educator, Carlyle J. Frarey, died on Saturday, 13 March 1976. ALA, and RTSD particularly, lost a devoted member and his activities are legend. Although living on borrowed time, Carl faithfully fulfilled his duties as parliamentarian for the RTSD Board at the Midwinter Meeting less than two months before his death. He was a friend and colleague, and many of us shall miss him. The RTSD Board at its meeting in Chicago passed a resolution in his memory which was spread on the minutes and published in *LRTS*.

The division also felt the loss of Allie Beth Martin, our leader throughout most of this year. She was a tireless worker and encouraged all of us in our thinking and plans for programs and activities during her brief administration as ALA President. RTSD joins all units in the association in recognizing our mutual loss and in appreciating her worthwhile contributions to librarianship.

**Conclusion**

The division depends on its members, and the interest, dedication, and willingness of those members to work within the organization. The RTSD Planning Committee, the Council of Regional Groups which provides that vital link between the state and regional associations and the division, and the new standing committee on membership are important cogs upon which we must all rely. While we look to them for guidance and assistance, all of us must be sure that RTSD does not falter. We need more members; we need new ideas; we need you!

Progress has been made in RTSD during this busy year. As President, I have had the unselfish devotion and dedicated support of many individuals—members of the Board, section executive committees, committee chairpersons, and many others. To those who responded to my call for assistance, I am deeply grateful. It is always dangerous to name names, but Carol Kelm, the executive secretary, is the one who makes it all possible and the one who made my job easier. Thank you, Carol, from all of us.

**Cataloging and Classification Section Report**  
*JANE ROSS MOORE, Chairman*

1976 was the centennial of three major events in American librarianship, all of particular significance for cataloging and classification. In 1876, the American Library Association was founded and the first editions of both the Dewey
Decimal Classification and Cutter’s Rules for a Printed Dictionary Catalogue were published. Sponsored jointly with RTSD, the CCS program meeting at the Annual Conference in Chicago celebrated these centennials, not only by looking backward but also, and especially, by looking forward. Phyllis A. Richmond’s (Professor, School of Library Science, Case Western Reserve University) keynote paper was entitled Mr. Dewey’s Classification, Mr. Cutter’s Catalog, and Dr. Hitchcock’s Chickens. The Dewey Decimal Classification: Editions 16-19 and Beyond was the topic of Richard B. Sealock (Executive Director, Forest Press), who considered it from the point of view of DC Outward and of Benjamin A. Custer (Editor, Dewey Decimal Classification, Decimal Classification Division, the Library of Congress) who presented DC Inward.

The Margaret Mann Citation in Cataloging and Classification was awarded to Eva Verona in recognition of her definitive work Corporate Headings and her continuing outstanding leadership toward the realization of universal bibliographical control of library materials through international standardization of cataloging principles and practices.

Of particular interest at the Midwinter Meeting was the consideration of the National Union Catalog from the point of view of its use for cataloging copy. This was placed on the agenda of the first meeting of the CCS Executive Committee as the result of correspondence with the University of California Catalogers Committee. Discussion centered around the use of NUC as a cataloging tool and as a reference tool with emphasis on its locational function. Representatives from the Library of Congress answered many questions about NUC and explained the problems that could arise with attempts to achieve quality control. The nature of the bibliographic record in data bases was also considered within this context.

Actions taken by the CCS Executive Committee included endorsing the resolution presented by the Descriptive Cataloging Committee (DCC) which commended the Library of Congress for the guidance and service it provides to American libraries in the area of cataloging, urged that these services be expanded, and recommended that the American Library Association give every support to the Library of Congress in this effort. The CCS Executive Committee also joined with DCC in expressing concern that the second edition of AACR be adequately reviewed, even if such a review requires delay in the publication of the work. In recent years there has been increasing interest in matters of cataloging and classification within other divisions of ALA, including sections of other divisions. CCS is greatly pleased with the recognition of the importance of cataloging and classification by these other groups although the question of how these mutual interests are best pursued within the structure of ALA is a complex one. This year, as a result of discussions with the Asian and African Section of ACRL, the CCS Executive Committee recommended to the Subject Analysis Committee and to the Descriptive Cataloging Committee that subcommittees concerned with the cataloging and classification of African and Asian materials be established and this was done.

In addition to the activities noted above, the Descriptive Cataloging Committee approved the romanization tables for Lao, Khmer, and Pali which had been forwarded to this committee by LC, participated in the work of the RTSD Catalog Code Revision Committee, and explored the possibility of a cataloging manual to accompany the second edition of AACR and which would provide examples illustrating the rules together with interpretations and explanations of their applications.

The Cataloging of Children’s Materials Committee was especially interested
in the national standard for the cataloging of children's materials, including exchange of information between librarians in the field and those at the Library of Congress, subject headings for that adult fiction which is designated as being suitable for young adults, and particularly in the inclusion of Cataloging in Publication information in non-book library materials as well as in books.

The Policy and Research Committee (PRC) was particularly concerned with the lack of adequate bibliographic control of microform sets. The CCS Executive Committee fully recognized the ramifications of this problem and of other problems having to do with microforms for both public and technical services and suggested this to the RTSD Board as a matter of divisional concern. PRC continued its consideration of user needs and noted that "it seemed clear, once again, that there is inadequate knowledge regarding user needs and that many decisions and conclusions regarding the user are made on the basis of conflicting assumptions."

The Subject Analysis Committee (SAC), feeling strongly that some theoretical investigation should be made into subject heading theory and that the committee itself was unable to undertake the necessary extensive investigation, offered (1) to receive correspondence from any persons who are undertaking investigation of subject heading systems, (2) to provide a forum for discussion of any planned, present, or completed investigation by scheduling presentations from such investigators at its Annual and Midwinter meetings, and (3) to review any such investigations and to provide feedback both to the investigator and to the Library of Congress. SAC unanimously reaffirmed its previous recommendation for change in Negro subject headings. The SAC Subcommittee on the Subject Analysis of Nonbook Materials presented its report, including six recommendations. SAC received from CCRC material on the formation of headings for entities that are neither persons nor corporate bodies; e.g., statues, bridges, etc. and will study this problem. This committee continued its close liaison with the Subject Cataloging Division of the Library of Congress, thus keeping itself informed of current developments.

Clearly, much of the work of CCS is accomplished by its committees. I extend thanks and appreciation for their active participation throughout the year to all of the committee members, to the committee chairpersons, to the CCS representatives to the Catalog Use Study Committee (RASD) and to the Decimal Classification Editorial Policy Committee, and to the LRTS Assistant Editors for Cataloging and Classification. A particular effort was made this year to appoint to committees those who had not been involved previously with CCS committees. Thanks and gratitude are extended to all of the members of the CCS Executive Committee for their help and support throughout the year and to Carol R. Kelm, RTSD Executive Secretary, for her invaluable and much appreciated assistance.

Reproduction of Library Materials Section Report
FRANCIS F. SPREITZER, Chairman

The chief concerns of the section continue to be education, information, and the development of reprographic and especially micrographic standards.

"Microcosmos '76" was the title of the well-attended, informative program meeting held at the ALA Centennial Conference in Chicago. Francis F. Spreitzer

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summarized and commented on some aspects of library micrographics and Carl Spaulding gave an update on computer-output-microfilm for bibliographic applications.

The recently established Publication Committee, chaired by Joseph Z. Nitecki, made its publishing debut with RLMS Circular [no.1], “Plain Language Definitions of Microform Terminology for Order Librarians” by Norman J. Shaffer. The circular and a promotional bookmark were distributed free to conference registrants. This project was funded from royalties accumulated from the Directory of Library Reprographic Services, which appeared in the 6th edition early in 1976. Joseph Z. Nitecki, the editor, is already at work on the 7th edition, with plans for a truly worldwide coverage. The Publication Committee planned several new volumes in the RLMS Micro-File Series. Hans Engelke (ch., Telefacsimile Committee) edits the next volume to be published, reporting on the results of the Telefacsimile Committee’s recently completed survey on telefacsimile use in U.S. libraries.

Under the leadership of Stephen Salmon, the Standards Committee joined hands with the Resources Section’s Micropublishing Projects Committee in an effort to call attention to the substantial questions surrounding the suitability of present-day non-silver films for microforms acquired for permanent retention. The previous year these committees recommended that libraries buy for their permanent collections only microforms for which standards for archival permanence have been established by recognized standards organizations, i.e., silver halide films. Salmon reported that the committees’ recommendation had been publicized widely, and although it was hoped the recommendation was useful to libraries, it had apparently had no effect in goading the ANSI PH 1.3 Committee (the official standards committee charged with the development of standards for diazo and vesicular films) to expedite its deliberations. According to a preliminary report of the PH 1.3 committee published in January 1976, after five years of work, even draft standards may still be as long as two years away. The RLMS Standards Committee and the RS Micropublishing Projects Committee reaffirmed their resolution of the previous year, and expressed hope that the ANSI committee would move with dispatch to complete its assignment within the promised two-year period. Mary Lou Lucy, RLMS representative to ANSI PH 5 Committee on Micrographic Reproduction, reported that work was underway on standards for computer-microfilm output quality and for color microfiche (among others). The RLMS Standards Committee considers as urgent the need for standards for color microfilm permanence, the composition of storage reels and microfiche envelopes. Allen B. Veaner has been appointed to chair the Standards Committee, and Charles G. LaHood, Jr., was named the ALA-RLMS representative to ANSI PH 5 Committee.

The section has cooperated with the RTSD Book Catalog Committee and with the Resources Section Bookdealer-Library Relations Committee in the preparation of committee publications, and was proud to have generated Reprographic Services in Libraries: Organization and Administration by Charles LaHood and Robert Sullivan, a much needed handbook that was published by ALA at the end of 1975.

The section kept in touch with issues and organizations through representatives: Samuel M. Boone monitored the copyright law revision, Carl M. Spaulding acted as liaison with the National Micrographics Association (NMA). The educational and information function was served by providing speakers for the highly successful First Annual Library Microform Conference for Librarians (New York City, October 1975) and for the Micrographics Seminar for Librarians that coincided with the NMA Conference & Exhibition (Chicago, April
1976. Both of these events were organized by *Microform Review*. Under the appropriately informal leadership of Frances Spigai, John Webb and Lawrence Robinson, the RLMS Discussion Group proved its value as a lively and eminently useful information exchange forum.

The accomplishments of the year were due to the excellent work of the committee members, section officers, and interested individuals among the still numerous section membership. The chair is particularly indebted to the retiring committee chairman, Hans Engelke, Stephen Salmon, Norman Shaffer; to Robert Lynch, secretary; to Dale Bentz, RTSD President, who took special interest in our work; and Carol Kelm, RTSD Executive Secretary.

It is good to report that RLMS seems vigorously alive and well, as it has been able to effectively serve the profession. We look forward to another exciting and challenging year with our first chairperson, Jane Garner, and her capable team.

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**Resources Section Report**

**Murray S. Martin, Chairman**

The Resources Section continues actively its role in forwarding RTSD interests in selection, acquisition and evaluation of library materials. This report is a fitting place to acknowledge the commitment of the section members to its goals. Not only committee members but the membership at large participates with enthusiasm. Without such enthusiasm it would not be possible to accomplish so much.

At the Centennial Conference in Chicago, themes enunciated at earlier conferences were continued and expanded. The section and its committees co-sponsored with the International Relations Round Table and several sections of ACRL an all-day program on "The International Flow of Books." This program which took place on 18 July 1976 was concerned with recent developments in international publishing and the book trade throughout the world. Addresses were given by Julian Behrstock, Director, the Division of the Free Flow of Information and Communication Policies, UNESCO; W. Bradford Wiley, president of John Wiley and Sons, Inc.; and Herbert Lottman, European correspondent, *Publishers Weekly*. These three talks, which it is hoped will be published, provided a state of the art survey on publishing for an international market and the ways in which organizations, publishing firms and individuals have contributed to the provision of information throughout the world. Eleven area discussion sessions held during the afternoon explored the latest developments in the publishing, distribution and bibliographic control of materials. The section owes a continuing debt of gratitude to the program committee and particularly to Juanita S. Doares and Elizabeth H. Nebehay.

The Collection Development Committee continued the theme in a further round of its ever-popular discussion group sessions. These twelve groups were organized by David Zubatsky and met on the evening of July 19 to discuss collection development and acquisition themes. Such meetings are a further example of the enthusiastic involvement of the membership in the goals of the section.

A third meeting—"Reviews: Who Needs Them?"—was co-sponsored with the RTSD/AAP Joint Committee on July 22. At this meeting publishers, reviewers and librarians continued discussion of the questions raised in San Francisco.

As if this were not enough, the Collection Development Committee, under
the able leadership of David Zubatsky of Washington University, St. Louis, 
formed up plans for a pre-conference on collection development and the selec-
tion of library materials to be held at Detroit in 1977. The committee is also 
planning several guidelines, the first of which, Guidelines for the Formulation 
of Collection Development Policies, was approved by the Executive Committee 
for transmission to the RTSD Board. It is intended that these guidelines be pub-
lished as a working paper for the pre-conference, with the expectation that dis-
cussion at that meeting and experience in working with them will result in final 
guidelines within two years. Work is also proceeding on guidelines for the eval-
uation and weeding of collections and a guide to selection tools is in the final 
stages of preparation. This committee has made exceptionally good use of task 
forces and consultants in carrying out an exacting program of work. The pro-
duction of these guidelines will be a major contribution to librarianship.

The section discussion groups continue to provide an excellent forum for 
members to discuss their problems. The section welcomes the affiliation of the 
Discussion Group of Chief Collection Development Officers of Large Research 
Libraries. The chairperson of this group is Mona East, University of Michi-
genese, the breadth of its scope by discussing the needs and use of gift and ex-
change programs which proved to be a lively debate topic. The Collection De-
velopment Officers in Medium-Sized Research Libraries under the chairmanship 
of David Zubatsky discussed matters relating to the utilization of selection per-
sonnel and organizational responses to the needs of collection development.

The Bookdealer Library Relations Committee, chaired by Harriet Rebuldea 
of the University of Colorado Libraries, forwarded for approval two further 
guidelines on Procurement of Out-of-Print Materials and Handling Library 
Orders for Published and Available Microforms. These guidelines were accept-
ed by the Executive Committee and forwarded to the RTSD Board for ap-
proval. Work is continuing on a study of the marketing of mass paperbacks. 
The committee is working on press releases concerning unsolicited library ma-
terials and discriminatory sales practices. The committee will again co-sponsor 
the Annual Microforms Conference to be held in Atlanta in October 1976.

The collection of local price studies represents a new departure for the Li-
brary Materials Price Index Committee. It is hoped that libraries will respond 
to the request for such studies which will enable the committee to discuss in a 
more informed manner the ways in which indexes can best be used by individ-
ual libraries. The committee, chaired by Frederick C. Lynden, of Stanford Uni-
versity Libraries, is also expanding the range of price indexes which it sponsors, 
with plans for microform and newspaper price indexes. New foreign price in-
dexes are being pursued, together with government document and computer data 
base information. Proposals by Frank Clasquin of Faxon for the extension of 
his annual periodical price survey to include classification by subject were dis-
cussed at length and will be pursued. There is no doubt that the work of this 
committee provides an invaluable service to all libraries.

After considerable discussion, the Reprinting Committee resolved to recom-
mend its own dissolution. The recommendation presented by Chairman Henry 
James, Sweet Briar College Library, was accepted by the Executive Committee. 
During the twenty-three years of its existence the committee has carried out im-
portant work in examining the relationship of reprinting to library needs and 
bringing to the attention of reprinters and librarians ways in which this rela-

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tionship could be improved. Its production of a policy statement on lending to reprinters was a signal contribution. Reprinting remains an interest of the section and will be monitored by the various continuing committees according to their specific charges. At the final meeting a very informative paper on “The Background and Present Nature of the European Reprint Industry” was presented by Herbert Gstalder of Kraus-Thomson. It is appropriate here to record the thanks of the section and of the library profession to the chairmen and members of the Reprinting Committee for their contribution to the understanding of one important aspect of resources.

The Micropublishing Projects Committee, under the leadership of Victor Marx, Central Washington State College, who assumed the chairmanship vacated by Adelaide Lockhart because of ill health, continued its monitoring of industry standards. It is also engaged in a systematic review of its responsibilities and to this end appointed two subcommittees on Bibliographic Control of Microforms and Microform Advertising, topics which continue to be of great importance. Active and efficient liaison with RLMS and other ALA committees continues.

The Policy and Research Committee led by Deanna H. Marcum of Tennessee Joint University Libraries developed procedural guidelines for the award of the Resources Scholarship and, at the request of the section chairman, acted as jury for the first award, presented at the annual business meeting. The committee is examining the roles and relationships of the committees and discussion groups and will present recommendations at a future date.

The Executive Committee reviewed the role of the assistant editor of Library Resources & Technical Services and a subcommittee will present recommendations at the next Midwinter Meeting. The informal luncheon at which committee members and committee chairmen exchange ideas and information was continued. The strategy considerably assists the Executive Committee in expediting its crowded meeting agenda.

Finally, it is a great pleasure to report the first Resources Scholarship Award which, as indicated above, was presented at the section’s annual business meeting on July 18. The award, sponsored by National Library Service, Inc., is presented to the authors of the best article on resources published in the previous year, who in turn nominate a library school to receive the scholarship. The award was made to Hendrik Edelman, Carol Nemeyer and Sandra Paul for “The Library Market: A Special Publishers Weekly Survey” (Publishers Weekly, June 16, 1975). The recipients nominated the Columbia School of Library Service and the scholarship was accepted by Dean Richard Darling.

The Resources Section has a dedicated membership and officers and can be proud that it continues to be a productive organ of the association. The Executive Secretary, Carol R. Kelm, provided support and cooperation throughout the year. It now remains only to express my personal thanks for the chance to enjoy so remarkable a year and wish the incoming chairperson, Abigail Dahl-Hansen, a similarly rewarding and stimulating year.

**Serials Section Report**

**Joseph H. Howard, Chairman**

Activity worldwide on the serials scene continues to be busy and while the
millennium has not yet arrived, there is great reason to be optimistic about the future. CONSER, while not without problems, is moving apace. Agreement on a final ISBD (S) which will be consonant with other ISBDs is expected in the near future. A Z39 draft standard on Serials Holding Statements is in the offing. Through the efforts of the Serials Section, a new Z39 subcommittee on a standard claim for serials has been established. ISDS and its U.S. arm, NSDP, are alive and well.

The Serials Section tries to keep abreast of the latest developments in the above areas even where it is not officially represented. Continuing support and encouragement of the use of the ISSN and keytitle was accomplished by a press release that appeared widely in the library literature.

The Serials Section representative to the CONSER Advisory Committee has been ex-officio the chairperson of the SS Discussion Group for Large Research Libraries but, since a new chairperson is elected annually, lack of continuity has been a problem. The Council on Library Resources' suggested solution, that SS name someone for a longer period to represent the section as a whole, was approved by the Executive Committee, and Susan Brynteson was appointed for the period July 1975 to June 1977.

Mary Pound, having been named editor of the RTSD Newsletter, submitted her resignation as LRT's assistant editor for serials, and Dorothy Glasby was named to replace her.

The Ad Hoc Committee to Study Manually-Maintained Serial Records submitted its final report, which is to be published by ERIC. The committee (Le Roy Ortopan, Chairperson) is to prepare a proposal regarding its future for consideration by the Executive Committee.

The AACR Revision Study Committee (Judith Cannan, Chairperson) continued to provide a forum for serials librarians to discuss serials-related cataloging rules for the second edition of AACR.

The Policy and Research Committee (Susan Vita, Chairperson) has been concerned with many endeavors, among them the effect of rising postal rates on publishers and libraries, the nature and degree of apparent price discrimination against libraries and library-related organizations for serial subscriptions, out-of-print copyrighted serials, and standard institutional identifier codes.

The Regional Serials Workshops Committee (Hans Weber, Chairperson) is preparing the second draft of a manual on how to organize and conduct regional serial workshops.

The Ad Hoc Committee on Library School Education (Hal Hall, Chairperson) is trying to do something about the present deficiencies of education for serials librarianship, and will continue to work toward achieving better coverage of serials management topics in library school curricula.

The number of institutions participating in the Duplicate Exchange Union Committee was expanded considerably as the result of the mailing of a DEU brochure. Richard Eggelton resigned as chairperson and was succeeded by Ambrose Easterly.

The annual program in Chicago focused on "Possible Use of Machine-Readable Data Bases" with Mildred Nilon (University of Colorado) and Jack A. Speer (Informatics, Inc.) as speakers. The program was co-sponsored by the Serials Section, the Reference and Adult Services Division, and the Information Science and Automation Division.

The discussion groups for large and medium-sized research libraries continue to attract many attendees and are proving to be effective and stimulating forums for the airing of current issues and concerns in serials librarianship. The dis-
Discussion groups were led by Charlotta Hensley (large research libraries) and Beverly Brkic (medium-sized research libraries).

Decimal Classification Editorial Policy Committee Report

JOHN P. COMAROMI, Chairman

The Decimal Classification Editorial Policy Committee held its annual meeting on 8-9 November 1975 at the Allerton House of the University of Illinois, immediately preceding the Allerton Conference, devoted that year to matters of classification, particularly the Dewey Decimal Classification. A second meeting was held 18-19 March 1976 in Albany, New York. All members save William Welsh were present at the November meeting: Frances Hinton, chairman; Lois Chan, Margaret Cockshutt, John Comaromi, Betty Croft, Joel Downing, John Humphry, Clare Ryan, and Marietta Shepard.

At the November meeting the committee elected John Comaromi to be chairman, and recommended to Forest Press the adoption for the nineteenth edition of the following items: (1) development of standard subdivision-068 to provide a management aspect; (2) a new table which simplifies synthesis of numbers in the 800's; and (3) classing of political history in 930-990 rather than in 320.9. The committee also recommended adoption of draft schedules 100, 200, 310, 320, 330, 360, 370, 380, 640, 650, 790, and 800. There was extended discussion concerning the phoenix 780 for music developed by Russell Sweeney, Principal Lecturer, Leeds Polytechnic, John Clews, and a working party of music librarians in Great Britain. The committee recommended submission for study of the phoenix 780 to the appropriate committees of the Music Library Association and the International Association of Music Librarians, United Kingdom branch. The chairman conveyed the committee's appreciation of the efforts of Messrs. Sweeney and Clews. The final act of the committee at the November meeting was an expression of gratitude to Frances Hinton for the excellent performance of the duties of the chairman of the committee for the six years of her incumbency.

All members were present at the 18-19 March 1976 meeting. Replacing William Welsh, whose decade of service on the committee is greatly appreciated, as representative of the Library of Congress, was Joseph H. Howard, director of the Processing Department of the Library. Most of the March meeting was devoted to a deliberation of the findings of the Survey of the Use of the Dewey Decimal Classification in the United States and Canada, a study funded by Forest Press and conducted by the Library Research Center of the University of Illinois. The survey was presented by the chairman, John Comaromi, who was the principal investigator for the project. Among its general findings were: (1) The DDC, an intensively developed faceted classification, is used by 85% of all libraries in the United States and Canada. It is used by virtually all school and public libraries, by half of all junior college and college libraries, but by few university libraries. (2) Few of its users anticipate switching to another system. (3) Upon publication of a new edition, most larger libraries do not reclassify works even though a conflict in meaning of number may occur. (4) Stability of numbers is preferred over keeping pace with knowledge. (5) Divisions needing
extensive revision most urgently are, in order of desired revision: 301, 620, 610, 330, 150/130, 360, 370, 320, 350, 570, 780. (6) Public services librarians are more satisfied with the DDC than are technical services librarians. It was obvious to the committee that certain items deserved top priority action: (1) A comparison of changes made in ed. 19 with practices called for in the survey, with the expectation that desired practices not already incorporated in ed. 19 be incorporated if the editor and Forest Press considered such action feasible. (2) A manual for application of the DDC. (3) Assistance for teachers, administrators, and catalogers in the use of the DDC. In other actions at the March meeting the committee recommended adoption of draft schedules 355, 390, 630, 700, and 560-590 (approved on the basis of the 18th edition). Final acceptance of phoenix 780 has been deferred.
RTSD Nominees—1977 Election

Resources and Technical Services Division

Vice-president (President-elect) (1977-79):
Pauline Atherton, Syracuse University, School of Information Studies, Syracuse, New York.
Nancy J. Williamson, University of Toronto, Faculty of Library Science, Toronto, Ontario, Canada.

Director-at-Large (1977-80):
Marvin H. Scilken, Orange Public Library, Orange, New Jersey.

[Nominating Committee: Allen B. Veane, chairperson; Allen Cohen (CCS); Maurice Freedman; Barbara Gates (SS); Jane Maddox; William Myrick (RS); Carl M. Spaulding (RLMS).]

Cataloging and Classification Section

Vice-Chairperson (Chairperson-elect) (1977-79):
Paul Berrisford, University of Minnesota Library, Minneapolis, Minnesota.

Secretary (1977-80):
Elizabeth Dickinson, Hennepin County Library, Edina, Minnesota.
Helen Schmierer, University of Chicago Library, Chicago, Illinois.

Member-at-Large (1977-80):
Elizabeth Herman, University of California Library, Los Angeles, California.
Joan Marshall, Brooklyn College Library, Brooklyn, New York.

Reproduction of Library Materials Section

Vice-Chairperson (Chairperson-elect) (1977-79):
Dale Cluff, University of Utah, Salt Lake City, Utah.

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Member-at-Large (1977-80):
Darrell Lemke, Consortium of Universities, Washington, D.C.
[Nominating Committee, RLMS: Carl M. Spaulding, chairperson; Hans Engelke; Lawrence S. Robinson.]

Resources Section

Vice-Chairperson (Chairperson-elect) (1977-79):
Frederick C. Lynden, Stanford University Library, Stanford, California.
David S. Zubatsky, Washington University Library, St. Louis, Missouri.
Secretary (1977-80):
Mona East, University of Michigan, Ann Arbor, Michigan.
Members-at-Large (1977-80):
Deanna Hudson Marcum, Joint University Libraries, Nashville, Tennessee.
Elaine Sloan, Smithsonian Institution Libraries, Washington, D.C.
[Nominating Committee, RS: William Myrick, chairperson; Tom Leonhardt; Hans Weber.]

Serials Section

Vice-Chairperson (Chairperson-elect) (1977-79):
Judith Kharbas, University of Rochester Library, Rochester, New York.
LeRoy Ortopan, University of California Library, Berkeley, California.
Member-at-Large (1977-80):
Margaret Johnson, Ohio College Library Center, Columbus, Ohio.
Mary Grathwool, California State University and Colleges, Hayward, California.
[Nominating Committee, SS: Barbara A. Gates, chairperson; Charlotte C. Hensley; Mary Sauer.]
A Publisher Replies

The paragraph about Readex Microprint in Paul Napier's "Developments in Copying, Micrographics and Graphic Communications, 1975" (LRTS, 20:240 Summer 1976) included an unpleasant reminder about an ill-advised notice we sent out last year—and retracted, I might add, almost as quickly. We had intended no such hard-sell on Landmarks II, our new Microprint project, and it is not being handled that way.

At the same time, I would like to take issue with your gratuitous use of the word "moribund" for our particular microformat. Moribund, Webster says, means "dying"; the American Heritage Dictionary opts for "at the point of death." Either way, I challenge your use of it for a micropublishing firm which by now is well into its third million titles—and which, I might add, has found the California State University and Colleges not quite ready to follow their own proclaimed intent right to the letter.—William F. Boni, President, Readex Microprint Corporation, New York.

The purpose of this work is to bring into one place publishers’ policies of interest to acquisitions librarians. The work covers mailing addresses and telephone numbers, discounts, return privileges, billing and shipping information, prepayments, standing orders and back order policies. Scope of the work is limited to the United States. Data are derived from questionnaires returned by publishers selected mainly from Literary Market Place. There is special concentration on publishers of hardbacks issuing twenty or more titles a year deemed to be “appropriate for library collections.” (The author also states that he “dropped” publishers whose works were considered “not appropriate” for libraries, but he does not specify the criteria employed in arriving at this judgement.) 238 publishers are included, covering a wide range of academic, religious, school, societal or special purpose publishers.

*Policies of Publishers* is arranged alphabetically by name of publisher with an alphabetical index covering “see” references to handle mergers, distributors and parent companies. However, the main entry for each publisher does not explain the relationships of the references.

There appear to be some odd exclusions and inclusions; the book may have been mistitled. As it excludes major Canadian publishers, e.g., University of Toronto Press, McClelland and Stewart, McGill-Queen’s University Press, University of British Co-

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**REVIEWS**

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lumbia Press and Hurtig, a more accurate title would have been *Policies of Selected U.S. Publishers*. Aside from the Canadian omissions, numerous major U.S. publishers are not included (perhaps because they did not respond?): University of Hawaii Press, Greenwood, UCLA Press, Braziller, American Management Association, Xerox University Microfilms, AMS Press, Lane Pub. Co., Westview Press and World Pub. Co. The work includes highly specialized medical publishers such as C. V. Mosby, W. B. Saunders, Williams & Wilkins, and Lea & Febiger, but excludes two of the nation’s major lawbook publishers, West Pub. Co. and Oceana. Although paperbacks are not within the scope of the work, Penguin Books is included. *Policies of Publishers* includes many religious book houses (Eerdmans, Zondervan, Ktav, Abingdon, Augsburg, Fortress Press, Scripture Press, and Word) but only a handful of vocational publishers, e.g., Chilton. Howard Sams is not included.

The book satisfies the need to know whether prepayment is required in advance, a trend the author believes is on the increase, yet an examination of the data in the book actually disproves the author’s contention: of 238 entries, only 41 (17%) require prepayment.

Most libraries send shipping and billing instructions with their orders and already have procedures to take care of departures from their instructions, so the inclusion of shipping and billing policies seems superfluous. It may be observed that many publishers’ policies are identical (e.g., “no discount to libraries”) or may be
easily categorized under a few rubrics. This suggests that a good deal of space might have been saved and the work made easier and faster to use if the information were coded and tabulated with exception statements handled separately. In short, the work is too wordy and does not convey essential information with dispatch.

The volume appears to be based on an assumption that is questionable—that acquisitions librarians frequently order directly from the publishers included in this handbook depending on the publishers' policies. If speed is of essence, it matters less whether a publisher charges for shipping, explicitly follows the library's shipping and billing instructions, or gives a discount. A query of a number of acquisitions librarians by this reviewer indicated that librarians order directly more from other types of publishers that are not heavily included in this book, namely, university departments, small and private presses, museums, societies, and corporations.

Also, the status and distribution arrangements of publishers change frequently—a fact acknowledged by the author; thus, the book may rapidly lose its utility and possibly become a source of obsolete data or misinformation. In summary, this reviewer fears that a printed handbook dealing with data which perforce change rapidly may be used by some as a crutch and as a substitute for professional knowledge and awareness of industry trends. If used with this in mind, Policies of Publishers will be a weak crutch, one which could betray the unwary. Policies may be the one crucial area in publishing not readily susceptible to "canning" in a handbook.—Harriet K. Rebuldel, University of Colorado Libraries, Boulder, Colorado.

Pan, Elizabeth. *New York State Library Automated Serials Control System.* Albany: University of the State of New York, State Education Department, New York State Library, 1974. 116p. Free to libraries in New York State or on exchange to other libraries, $1.50 to individuals and other institutions.

The New York State Library chose serials control as its first major automation effort and nongovernment-issued active serial titles as the data base. Factors involved in the choice of serials control were need in terms of deterioration of manual control of serials, impact of greater efficiency and tighter control of serials at NYSL on its interlibrary loan distribution services, and the relationship of the NYSL effort to efforts in other libraries in New York State. Processes covered by the system include bibliographic control, check-in, claiming, binding and holdings update, invoice control, and subscription renewals. The overall goal of the system was to increase the utility of the library's serial holdings by providing greater control over it and by facilitating access to it.

The system is tape-oriented off-line utilizing hard-copy and COM output for such items as check-in lists; KWIC indices; claim, binding, and invoice renewal notices; binding check lists; discard lists; and statistical reports. It was initially designed to run on GE 235 computer and, after two years, was converted to a CDC 3300.

The author intends the report for librarians, systems analysts, and administrators involved in automation activities and states as her purpose "to provide a description of the computer based serials control system at the New York State Library (NYSL), to
document the rationale behind the major design decisions underlying the system, and to draw some conclusions from the experience which may provide some insights to other libraries which are embarking, or plan to embark, on similar ventures." The purposes are met in a very thorough, well-organized and readable text which is supplemented by appendices containing conversion forms, systems outputs, system flow charts, and record layout.

At the time of writing the NYSL serials control system had been in operation without interruption since April 1968. Ms. Pan presents an objective view of the problems and achievements of the library in developing the system. It was one of the pioneer automated serials control efforts in a large library in the United States and, as such, deserves attention. —Judith N. Kharbas, University of Rochester Library, Rochester, New York.

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