Take 3 minutes to learn exactly what University Microfilms can do for you.

PERIODICALS. UMI has modern American, English, and foreign periodicals on microfilm. In addition, special collections include English literary periodicals from the 17th, 18th, and 19th centuries. And early American periodicals from 1741 to 1850.

DOCTORAL DISSERTATIONS. UMI has 70,000 doctoral dissertations from 150 universities covering mathematics, science, social sciences, and humanities. Additional dissertations are being abstracted in Dissertation Abstracts at a rate of more than 10,000 every year.

OUT-OF-PRINT BOOKS. UMI has more than 10,000 out-of-print, modern books stored on microfilm and especially prepared for xerographic reproduction. These and most other out-of-print books are available for as little as 3½ cents a page.

UNDERGRADUATE SHELFLIST. UMI has a list of the 57,000 books in the University of Michigan undergraduate library. This list is available on microfilm, file cards and in bound volumes. UMI also has many of the out-of-print books on this list.

RUSSIAN LANGUAGE BOOKS. UMI has over 2000 books in the Slavic languages. Most of these books are now out of print. You can get xerographic copies from UMI.

EARLY ENGLISH BOOKS. UMI has most of the books listed in the Pollard & Redgrave and Wing catalogs. These books were published in Great Britain between 1475 and 1700.

EARLY AMERICAN BOOKS. UMI has an American Culture series that begins with the Columbus letter and includes 6000 selected books published through 1876.

OTHER. UMI also has newspapers, government documents, collections on drama, the theatre, music, painting, and world cultures.

Now tell us what you need.

I am interested in the following. Please send free brochures and catalogs.

Periodicals □ Doctoral Dissertations □ Out-of-print Books □ Undergraduate Shelflist □ Russian Language Books □ Early English Books □ Early American Books □ Other □

NAME________________________

ADDRESS_______________________

CITY___________________________

STATE_________________________

UNIVERSITY MICROFILMS, INC.
313 NORTH FIRST STREET, ANN ARBOR, MICHIGAN
A subsidiary of Xerox Corporation
We are privileged to publish the catalogue of this invaluable collection. Mr. C. D. Overton of the Colonial Office Library has supplied the following description:

Materials recorded in the catalogue of the Colonial Office Library include books, pamphlets, reports, official publications, periodical titles, periodical articles, etc., and these publications have imprint dates from the middle of the 17th century. All aspects of the organisation and development of those countries which form or have formed part of the Commonwealth are covered by this catalogue, which reflects the changing interests and activities of the Colonial Office over the past 300 years.

The catalogue in the Colonial Office is a union catalogue covering a library service to three departments—Colonial Office, Commonwealth Relations Office, and Department of Technical Cooperation—and it therefore includes material on Commonwealth countries after independence, on many other countries, particularly in Africa, Asia and Latin America, and also on a wide variety of subjects which do not have any obvious colonial connection.

The acquisition of material on the dependent territories has been as extensive as possible and the aim has been to include all worthwhile publications relating to these countries irrespective of subject. For independent countries the collection has been selective and is devoted to the administration; external relations; economic and social development of the country. Where a country has left the Commonwealth, e.g., Burma and Palestine in 1948, Republic of South Africa in 1961, etc., the collection is complete only up to these dates. Certain categories of official publications do not appear in the catalogue, as complete sets are held by the Library. These include legislation; official gazettes; departmental reports; estimates; debates; treaties and sessional papers.

The catalogue is in two parts. Material acquired before 1950 is included in a sheaf subject catalogue with extensive geographical entries, together with an author index on cards. Since 1950 new material has been classified by the Library of Congress system and catalogued using L.C. subject headings. This post-1950 catalogue is in card form in three sequences:

(a) Authors and titles, alphabetically
(b) Subjects, alphabetically
(c) Classified order

At present there are some 176,000 cards in this catalogue. A small percentage of the older material has been recatalogued and will be found in both the sheaf and card catalogues.

This publication has been printed by offset on Permalife paper. The 15 volumes, 10" x 14", are bound in Class A library binding. The 187,000 entries in the card catalogue have been reproduced with 21 cards per page; catalogue entries in sheaf form are reproduced approximately full size.
NEW REFERENCE WORKS

Dictionary Catalog of the MUSIC COLLECTION
The New York Public Library

Literature pertaining to virtually all musical subjects, and scores covering the broadest range of musical style and history are represented in this catalog. Special strengths of the collection include folk song, 18th and 19th century librettos, full scores of operas, complete works, historical editions, Beethoven, Americana, American music, periodicals, vocal music, literature on the voice, programs, record catalogs, and manuscripts.

Approximately 522,000 cards, 33 volumes
Prepublication price: $1690.00; after July 31, 1965: $1990.00

Dictionary Catalog of the M. C. Miguel Memorial Library
AMERICAN FOUNDATION for the BLIND

This comprehensive collection on every phase of blindness is arranged according to the L.C. system, modified to make headings as specific as possible. Typical subject headings include Preschool child, Reading, Public school classes, Space perception, Personality development, Counseling, Peripatology, Vocational guidance and placement, the Deaf-blind, and the War-blinded.

Approximately 23,000 cards, 2 volumes
Prepublication price: $80.00; after April 30, 1965: $100.00

Catalog of FOLKLORE and FOLK SONGS
John G. White Department, Cleveland Public Library

"Folklore" is interpreted in its broadest sense in this collection, which covers folktales, riddles, proverbs, fables, chapbooks, romances, folk songs and ballads; works on superstition, magic and witchcraft; and studies of folk habits, beliefs and customs. The catalog is arranged predominantly by subject, with headings filed alphabetically.

24,200 cards, 2 volumes
Prepublication price: $85.00; after July 31, 1965: $105.00

Dictionary Catalogue of the
LONDON SCHOOL of HYGIENE and TROPICAL MEDICINE

Public health, tropical medicine, and microbiology are the major areas covered in this collection, renowned for its holdings on preventive medicine of both temperate and tropical climates. Cataloguing is according to the Anglo-American code.

Approximately 90,000 cards, 6 volumes
Prepublication price: $300.00; after April 30, 1965: $375.00

10% additional charge on orders outside the U. S.
Descriptive material on this catalog and a complete catalog of publications are available on request.

G. K. HALL & CO. 70 Lincoln Street, Boston, Mass. 02111
CONTENTS

The Music Manuscript Period; A Background Essay and Bibliographical Guide, by Guy A. Marco 7

The New Depository Program and College Libraries, by Carper W. Buckley 17

Automated Operations in a University Library — A Summary, by Donald P. Hammer 19

Professional Duties in University Libraries, by Robert B. Downs and Robert F. Delzell 30

The Library Services Branch and Its Services to Libraries, by Theodore Samore 40

The Interlibrary Loan Service of the National Library of Medicine, by Joseph H. Roe, Jr., and Thomas R. Cassidy 45

A Librarian's Participation in the Conference on the African University and National Educational Development, by Sidney Forman 49

Selected Reference Books of 1963-1964, by Eugene P. Sheehy 52

Book Reviews

The Age of the Scholar, by Nathan M. Pusey, Donald Coney 61

Collier's Encyclopedia, D. K. 61


Library Buildings of Britain and Europe—An International Study, with Examples Mainly from Britain and Some from Europe and Overseas, by Anthony Thompson, A. F. Kuhlman 63

Microcopying Methods, by H. R. Verry, Stephen R. Salmon 64


Purdue University Libraries Attitude Survey: 1950-1960, Russell Shank 67


Association of Southeastern Research Libraries 72

ACRL Grants Committee Awards 73

Conference of Eastern College Librarians 77

News from the Field 79

Personnel 83
"I prefer the Americana..."
...it never needs dusting."

If the lady who cleans the library were in charge, she'd pick the *Americana* every time.

The dust never has a chance to settle on it. It's in use from morning till night.

Why? Because the *Americana* contains no musty circumlocutions. No fusty jargon. No cobwebby treatises. No stale cliches. The editors have gone through the nearly 69,000 articles in the current edition and swept them clean.

The *Encyclopedia Americana* is written for today's readers. And *read* by them. Ask any cleaning lady.
When you think about it, it is pretty wonderful to be able to order new books exactly as you want them... with a Lifetime Book Jacket Cover already folded on the book... with a three-set of L. C. Catalog Cards... with book card and pocket... or even completely cataloged and processed, ready for the shelves.

Sound relaxing? Indeed it is. Books of all U.S. and Foreign publishers are available, with any of Bro-Dart's library services, and just one order to write.

Most serendipitous of all — the low cost!

I want to be a serendipitist. Send more information on your book services:

Library Name .................................................
Address ............................................................
Attn.: ...............................................................
The Music Manuscript Period;
A Background Essay and Bibliographical Guide

The characteristics of music, notation, principal manuscripts, and contempor­
ary literature on music are described briefly for each of five chronological periods; namely: antiquity, early Christian through the sixth century; seventh through the tenth centuries; eleventh through the thirteenth centuries; and the fourteenth and fifteenth centuries. The resulting outline is intended as an aid for the "non-musicological music, humanities, or reference librarian who needs to have an understanding of the nature of music materials in the pre-printing era, whether or not he is actually charged with handling them."

Another aspect of these plays which has been generally unexplored is their melodies . . . since the plays of the Church were actually sung, our knowledge of them cannot be complete until such of their music as exists has been published, elucidated and heard. I am not a specialist in the theory of plain-song or in musical palaeography . . . The adequate editing and exposition of the music associated with the dramatic texts might well require a separate treatise equal to the present one in extent. Such a study would undoubtedly aid in the interpretation of certain texts, would assist a demonstration of relationships, and would probably disclose unsuspected traditional aims or originalities throughout the body of plays.

These remarks by Karl Young, in the preface to his monumental Drama of the Medieval Church (Oxford, 1933), point up the interdisciplinary function which musicology was even then assuming. Today it is not unusual for students of religion, drama, poetry, linguistics, and numerous other fields to find themselves—when their researches lead into medi­val times—involved with musical documents. One is not surprised to find the facsimile of a fourteenth-century music manuscript used as frontispiece to a volume of Chambers' Medieval Stage nor to see Speculum review books by musical specialists in the middle ages. A recent list of sources dealing with Tudor poetry and music permits easy observation of the considerable number of poetic remnants which contain "tunes," "bass-part of a set of part-songs," "lute tablatures," "plain-song Magnificats," and other "notation matter."1

Thus the reference or humanities librarian may well be confronted with

1 John Stevens, Music and Poetry in the Early Tudor Court (Lincoln: University of Nebraska Press, 1961), pp.461-68.
manuscripts that are musical at least in part, or with questions about them, though he himself is likely to have no deep knowledge about them; indeed such knowledge would hardly be a normal part of his background:

The librarian of a research library should be a musicologist with some training in library techniques whereas the librarian of a school or college library is first of all a librarian with a strong musical background. . . . The training required for the librarian of the public library's music department is essentially the same as that of the school librarian.2

The present essay is for this nonmusicological music, humanities, or reference librarian who needs to have an understanding of the nature of music materials in the pre-printing era, whether or not he is actually charged with handling them. To profit from this presentation, the reader must expect to consult a fair number of the books and articles cited in footnotes, as the text itself touches only quickly on highlights and ignores numerous complexities entirely.

These venerable documents pose problems which are by nature quite formidable, since the music involved is generally unfamiliar to nonspecialists and its bibliographical features are highly esoteric. Yet it is hoped that this little survey will offer some guides and points of departure, as well as a collection of references which may later prove useful. The reader who follows the thread attentively will discover that the labyrinth is not hopeless, and at the exit he might tentatively will discover that the labyrinth references which may later prove useful.

In the survey which follows, these subdivisions are utilized: antiquity, early Christian through sixth century, seventh through tenth centuries, eleventh through mid-fourteenth centuries, and fourteenth through thirteenth centuries, and fourteenth century. Musical scores were still hand produced, at least in part, after the printing of books had become widespread. The Psalterium printed by Fust and Schöffer at Mainz in 1457 is the earliest extant printed book containing music, but the music seems to have been manually inscribed. Later practice involved printing either the notes or the staff lines and completing the score by hand, this procedure arising from an inability to achieve accurate imposition in printing notes on staves. Not until the mid-1470's are there examples of printed notes and lines.3

through fifteen centuries. The discussion of each of these periods will be further divided into four sections: characteristics of the music, notation, principal manuscripts, and contemporary literature on music.

**ANTiquity**

With the possible exception of one apparently indecipherable Babylonian tablet of ca. 800 B.C., no examples of pre-Greek music have survived. Fewer than twenty fragments of Greek music are extant; two on marble, one on a stone slab, and the remainder on papyrus.

**Characters**

The principal function of music in Greece was that of adjunct to the drama and the dance. While the surviving examples are monodic (or monophonic: consisting of a single unaccompanied melody) further parts were probably improvised.

The theoretical basis of Greek music is highly complex and hardly entirely explained.

**Notation.** Musical paleography or handwriting, usually termed notation, assumed numerous forms before developing into our familiar system of notes and staves. The Greeks utilized what is known as letter notation, through which each pitch can be represented by a letter from one or more alphabets. Letter notation does not require a staff and is a simple, satisfactory way of writing down monophonic music if the rhythmic patterns are known to the performer or communicated to him by means of supplementary symbols; one Greek fragment includes such symbols. Two sets of letters were in use: one set for vocal music and the other for instrumental music.

**Principal Manuscripts.** Three items among the small number of survivals are of particular interest because of their age, length, and state of preservation. All are stone inscriptions discovered in the late nineteenth century. The first Delphic Hymn to Apollo is our most extensive piece of Greek music; it dates from ca. 138 B.C. The second Delphic Hymn to Apollo, also of considerable length, is about ten years younger. The Song or Epitaph of Seikilos is of uncertain date: between the years 200 B.C. and 100 A.D.

**Contemporary Literature on Music.** More can be learned of Greek music from the eighteen extant treatises about music preserved. Since Reese provided a commentary on these writings as well as a guide to texts and translations, it seems sufficient here only to mention the most important authors. These may be divided into three groups: those following the theories of Pythagoras (sixth century B.C.), those pursuing the somewhat conflicting views of Aristoxenos (born ca. 354 B.C.), and those not partici-

---

1 A photograph of the tablet, in conjunction with the most recent analysis of its possible musical content, appears in Curt Sachs, "The Mystery of the Babylonian Notation," Papers of the International Congress of Musicology, 1939 (New York: American Musicological Society, 1944), 161-67; also printed in Musical Quarterly, XXVII January, 1941, 62-69.


3 Gustave Reese, Music in the Middle Ages (New York: Norton, 1940), pp.48-49, offers brief descriptions of all of them, and provides a guide to transcriptions and facsimiles. This book by Reese will hereinafter be cited as Reese, Middle Ages.


6 Both groups are shown, with modern equivalents, in Reese, Middle Ages, pp.26-27.

7 Transcriptions, not mentioned in Reese, Middle Ages, of the first Hymn and of the Seikilos appear in Archibald Davison and Willi Apel, Historical Anthology of Music (Cambridge: Harvard University Press, 1946), I. 9-10. This two-volume compilation is a highly valuable sources of musical examples from preclassical times. Variant transcriptions are given in Henderson, op. cit., pp.364-73.
ularly associated with either of these theorists. The Pythagoreans were Euclid, Nicomachos, Ptolemy of Alexandria, and Porphyry; the Aristoxenians were Aristoxenos himself, Kleonides, and Bakcheios; the independents were Plato, Aristotle, Quintilianos, and Alypios.

EARLY CHRISTIAN THROUGH SIXTH CENTURY

This is truly a dark age for the study of western music manuscripts, for there are no surviving examples. From numerous contemporary allusions and treatises, and from later copies of pre-700 music, it has been possible to derive considerable knowledge about these lost documents. The music of these centuries is largely religious in nature, and it may appear strange that the monasteries did not preserve copies of it. Two reasons may be advanced for their failure to do so: the prevalence of oral tradition and the subsequent Gregorian reform. Both factors will receive further attention shortly.

Characteristics of the Music. So little is known about the secular music of this period that it is necessary to confine the discussion to liturgical music. Most of this sacred music falls into one of two categories: music written for the Mass (texts in the Roman Missal; music in the Gradual), and music written for the Daily Hours (texts in the Breviary; music in the Antiphonary). The character and, in some cases, the actual melodies of pre-700 liturgical music have been preserved by the Roman Catholic Church, which still considers the so-called Gregorian chant to be the ideal music for divine services. These chants are monophonic, rhythmically free, and sung by cantor and unison choir. The melodies are intended solely as ornamentations of the texts: they are restricted in range, sparing in use of wide intervals, and free from dissonance or sharp contrasts. Authentic performance does not admit instrumental accompaniment.

Pope Gregory I (590-604) appears to have instigated a reform and codification of the chant repertoire, which resulted in a curtailed but collated body of melodies. It seems reasonable to suppose that any manuscripts bearing superseded versions of a chant would not have merited preservation, and indeed the corpus of extant chant examples dates from the seventh century on.

About three thousand chant melodies remain in the present day repertoire.

Notation. Apparently not much need for a precise notation was felt during this period. In its stead there was a strong oral tradition; chant melodies were transmitted from master to pupil and from monastery to monastery with remarkably few corruptions; it was considered sacrilegious to alter a sacred melody. Nevertheless there were inevitable local variants, and doubtless it was a principal aim of the Gregorian reform to purify them.

There is evidence that a certain system of signs, known as ekphonic notation, had its beginnings in Byzantium during this period. Originally these

10 / College & Research Libraries • January, 1965
signs were but accents indicating a rise or fall in pitch; later they came to represent stereotyped melodic formulas. The first extant manuscript containing these signs dates from the ninth century.

Contemporary Literature on Music

The patristic writings are a source of much information regarding attitudes toward music and the function it had in early church services. Three men served to extend the tradition of Greek theory: Boethius (d. 524), Cassiodorus (479-515), and Isidore of Seville (565-636). Boethius continued the Pythagorean school and Cassiodorus that of Aristoxenos. Their writings, with those of Isidore, formed the basis of academic music study until the ninth century.

SEVENTH THROUGH TENTH CENTURIES

Now the music manuscript period begins to flourish. There is an abundance of examples, and improved notation renders them more or less readable.

Characteristics of the Music. Gregory’s codification of the plainchant became the norm for all western churches. This standardized body of melodies was not long untouched, however, for in the eighth or ninth century it was enriched by the development of tropes. These were interpolations made in the authorized texts, ranging in extent from a few amplifying words to lengthy sentences and even entire poems. The new text was either fitted to a pre-existing musical pattern which had previously been sung on a single syllable—a so-called melismatic pattern—or sung to a new melody. Tropes which took the form of dialogues were forerunners of the liturgical drama.

A second innovation of this period was the rise of the secular song, but there is a dearth of manuscripts in readable notation before the eleventh century.

The most important development of these four centuries was that of polyphony: the sounding and writing of two or more simultaneous melodies, in contrast to the single line monophony found earlier. In addition to the artistic significance of this new kind of music, we can observe a considerable impact which it had upon manuscript production and notation. The increased complexity resulting from extra voices rendered less satisfactory the practice of retaining compositions in the memory and was a reason for the larger number of manuscripts; and further, the necessity for two singers or groups of singers


18 The history of the trope is sketched in Reese, Middle Ages, pp.185-97, and in Jacques Handschin, “Troupe, Sequence et Conductus,” New Oxford History of Music, II. There are four examples in the Davison and Apel, op. cit. (numbers 15b, 16, 27b and 37 of Vol I).

19 The physical, physiological, psychological, and artistic factors which led to polyphony have been studied by many scholars. Some of the noteworthy contributions are: Armand Machabey, Histoire et Evolution des Formules Musicales . . . (Paris: Payot, 1928); Joseph Jaësser, “Medieval Quintal Harmony,” Musical Quarterly, XXIII, XXIV (1937-38); Amédée Gastoué, “Moyen Age II (La Musique occidentale);” Encyclopédie de la Musique . . . ed., A. Lavignac (Paris: C. Delagrave, 1913-31), I, I, 556 ff; Anselm Hughes, “The Origins of Harmony,” Musical Quarterly, XXIV (1938); Marius Schneider, Geschichte der Mehrstimmmigkeit (Berlin: J. Baur, 1924-33). A somewhat oversimplified summary of these and other views is given by Hughes in New Oxford History of Music, II. Further bibliography in Reese, Middle Ages, pp.451-62.
to perform different melodies simultaneously militated against improvised performance, for objectionable dissonances might be the result.

Notation. It was inevitable that notation of a sort should develop to keep pace with the changes taking place in composition; the interesting point is the direction taken by those who sought to write down music. The choice lay between the adaptation of one of the two radically different systems already known, and the invention of something completely new. The existing methods were the letter notation (originating with the Greeks; promulgated by Boethius) and the vague ekphonetic symbols. While letter notation is found in the most valuable musical document of the period, the “Musica Enchiriadis,” this fairly accurate and unequivocal scheme was not generally adopted. Instead there was developed, perhaps from the ekphonetic symbols or Hebrew cantillation signs, or possibly from the Greek and Latin grammatical accent signs, a system of neumes which seemed to satisfy the practical musician, if not the theorists, for several centuries. The neumes were stylized versions of the acute, grave, circumflex and (artificial) antircumflex accents, and indicated respectively (as the accents did) a rise in pitch, a drop, a rise and drop, a drop and rise. These signs were placed over the points in the text where pitch change was desired. Used in combination as well as singly, they were capable of indicating fairly complex melodic patterns and, as the system was elaborated, a number of subtleties in performance. The great flaw in neumatic notation was felt only later: it was that the size of the interval was not specified with the direction. An acute, for instance, signified a rise in pitch but did not designate how much of a rise. To musicians who knew the repertoire and its idiom this fault was perhaps not serious, but it prevented the learning or singing of an unfamiliar melody “at sight.”

Although the earliest extant manuscript containing neumes dates from the eighth century...

The history of Gregorian Chant would seem to support the assumption that neumes existed as early as the sixth century. For it is difficult to conceive how the complex task of codifying plainsong melodies could have been undertaken during the time of Gregory without the aid of some system of notation.

In any case there is a large number of manuscripts dating from the ninth century on. Principal Manuscripts. The outstanding musical work of the period is the ninth-century manual “Musica Enchiriadis,” the precise date and authorship of which remain in dispute.

See Jean Baptiste Thibaut, Origine Byzantine de la Notation Neumatique... (Paris: A. Picard, 1907).


Illustrated, with modern equivalents, in Harvard Dictionary, p.487.
tise is a primer of practice for early polyphony, with musical examples in letter notation. 27

**Contemporary Literature on Music.** Two names predominate: Hucbald and Odo. Hucbald, a monk of St. Amand (ca. 840-930), is perhaps better known for things he did not write than for those he did: he was formerly thought to have been author of the “Musica Enchiriadis,” and Gerbert gives him credit for the “Alia Musica” as well (see below). He is actually the author of “De Harmonica Institutione,” a summary of earlier thought. 28 Odo, head of the abbey of Cluny (d. 942), is responsible for a number of important writings on music, chief of which is the “Dialogus.” 29

A composite work of the tenth century is “Alia Musica,” of great value for the study of medieval theory. 30

**ELEVENTH THROUGH THIRTEENTH CENTURIES**

In this period the manuscripts begin to look like music as moderns think of it, for the staff makes its appearance to revolutionize notation. The number of manuscripts containing music reaches high into the thousands.

**Characteristics of the Music.** This is the earliest period for which we are able to recreate secular music. The most important body of material comes from the two groups of French minstrels: the troubadours (southern France, eleventh-thirteenth centuries; 2,600 poems and 264 melodies extant) and the trouvères (northern France, twelfth-thirteenth centuries; 4,000 poems with 1,400 melodies). Though monophonic, this music generally differs from plainchant in several respects: (1) it has a metrical basis and is more strongly rhythmic, (2) its melodies have a wider range and depart from the strict modality of the chant, (3) it was doubtless performed with improvised instrumental accompaniment (not in the manuscripts), and (4) with the exception of the famous Goliard Latin songs, the texts are usually in the vernacular. The German counterpart of the troubadour was the Minnesinger of the twelfth-fourteenth centuries. 31

Two great schools of sacred composition highlight these centuries with their achievements in organum. “Organum” is the name given to a polyphonic composition in which the principal melody (the tenor) is a liturgical chant. The first of the schools was that of St. Martial (Limoges, early twelfth century). Its specialty was organum duplum, in which each tone of a plainchant melody was greatly extended and accompanied in a second voice by a melodic passage. The school of Notre Dame (Paris, late twelfth century) brought forth two excellent composers, among the first important composers we know by name: Leonin and Perotin. The latter added a third and fourth voice to the chant tenor (organum triplum and quadruplum), and devised a method of regulating and notating rhythmic values. Frequently their

---

27 Davison and Apel, op. cit., ex. 25b, is a transcription of two examples.
29 Text in Gerbert, op. cit., I, 251-64; English translation in Strunk, op. cit., pp.103-16.
31 Details on these minstrels and their music may be found in Reese, *Middle Ages*, chapters 7 and 8; Pierre Aubry, *Trouvères et Troubadours* (Paris: F. Alcan, 1908); F. Gennrich, *Rondeaux, Virelais und Balladen* (Dresden: Gesellschaft für Romanische Literatur, 1921-1927); H. J. Moer, *Geschichte der Deutschen Musik* (Stuttgart und Berlin: J. G. Cotta, 1928-50). An excellent survey, with numerous transcriptions, is J. A. Westrup’s “Medieval Song,” *New Oxford History of Music*, II. It may be noted that the theories of Gennrich have been the subject of considerable controversy; for the most recent re-evaluation see Willi Apel, “Rondeaux, Virelais and Ballades in French 12th-Century Song,” *Journal of the American Musicological Society*, VII-2 (Summer 1954), 121-130.
voice parts clash in sharp dissonances. 32

Notation. The manuscripts show several fruitless attempts to solidify the equivocal neumatic notation or to provide a substitute for it. 33 But the one significant forward step was the development of the staff. Staff notation was an outgrowth of an earlier attempt to make definite the intervals represented by the neumes, in which dots were placed in the manuscripts above the text, separated vertically from one another by relatively large or small distances, in accordance with the size of the interval. As a guide to writing the copyist scratched a line across the page horizontally, with a dry pen, and this line was soon taken to represent a degree of the scale. The line came to be inked in; and presently another line, representing a higher scale degree, was added above it, and the neumes were grouped on and between the two lines. Guido of Arezzo is the person most closely associated with the introduction of staff lines; he recommends three or four lines. The four line staff was adopted for liturgical music and remains today the vehicle for plainsong notation. 34

When at the end of the twelfth century the neumes began to assume more definite, square shapes, they began to look like the notes and ligatures of modern plainsong notation found in the Liber Usualis. Then in the thirteenth century a rapid development began, in which relative lengths or durations came to be ascribed to three of the square notes. This innovation is regarded as the beginning of notation's most prolonged phase, one which was perfected by Vitry in the following century, that of "mensural notation." 35

Principal Manuscripts. There is a rich body of material from this period. All the manuscripts are in legible notation except the well known Winchester Troper, a collection of 164 organums in the eleventh-century neumes, decipherable only in general contour. It is nonetheless of value in the study of techniques in early organum. 36

From St. Martial the important survivals are B.N. Lat. 1139, 3719, 3549; B.M. Add. MS 36881.

From Notre Dame we have Wolfenbüttel 677; 37 Bibl. Laurenziana, Codex Pluteus 29,1; Madrid Bibl. Nac. Hh 167; Wolfenbüttel 1206. 38

Three of the numerous secular song collections—chansonniers, as they are called—may be mentioned as representative: Bibl. de l'Arsenal 5198, "Chansonnier de l'Arsenal"; 39 B.N. 844, "Chansonnier du Roy"; 40 B.N. 25566. 41 Other collections are cited in Harvard Dictionary, page 769.

There are three extremely important


33 They are discussed in Reese, Middle Ages, pp.136-37.

As we near our own time we find more and more details available about musical theory and practice, and more and more extant manuscripts. It is inevitable therefore that this, the final section of the survey, be the most condensed of them all; and that the interested reader will be even more dependent than heretofore upon the suggested references if he wishes to see beneath the surface.

**Characteristics of the Music.** The fourteenth century has been given the name "Ars Nova," and indeed there was much novelty in the musical picture. For the first time secular music predominated and liturgical music was comparatively neglected; there was new rhythmic freedom; dissonance was treated boldly.

Principal composers were Guillaume de Machaut (ca. 1400-1474). One accomplishment of this school was the final establishment of the third (rather than the fourth or fifth) as the basic interval of harmonic formulation. Sacred music returned to favor.

Succeeding the Burgundians were the Flemish Schools, highlighted by Johannes Ockeghem (1430-1495), Jacob Obrecht (1430-1505), and Josquin des Prez (1450-1521). These men and their contemporaries preferred four-part writing to the three-part texture of the

---

**FOURTEENTH THROUGH FIFTEENTH CENTURIES**

Codices of varied content which date from the thirteenth century: Montpellier, Fac. des Med., H 196; Bamberg Kg. Bibl. Ed. IV-6, and Burgos, Spain, "Codex Huelgas." The items mentioned appear to predominate among a large number of important sources.

Contemporary Literature on Music. Guido is probably the chief theorist of the time. Hermannus Contractus and John Cotton are authors of valuable treatises. Another work of moment, relating to mensural notation is the "De Musica Mensurabili Positio" of Johannes de Garlandia.

---


As guides to other MSS consult the index to *Pre-St. Martial Practical Sources of Early Polyphony*, *Speculum*, XXII (1947), 16-17.


Text in *E. de Coussemeaker, Scriptorum de Musica Medii Aevi Novae Seriem*... (Paris: A. Durand, 1864-76). Together, Gerbert, *op. cit.*, and this collection by Coussemeaker include all the important medieval treatises on music. Summary of Garlandia in

---

Hugo Riemann, *Geschichte der Musiktheorie im IX.-XIX. Jahrhundert* (Leipzig: Max Hesse, 1888), which is also the standard study of the other theorists from the ninth century on. Riemann has been partly translated: Raymond Haggh, *History of Music Theory; Books I and II, Polyphonic Theory from the Ninth to the Sixteenth Century* (by Hugo Riemann; translated with a preface, commentary and notes (Lincoln: University of Nebraska Press, 1962).

For a concise view of the fourteenth century, with bibliography, see *Harvard Dictionary*, pp.56-68.
gundians, and made numerous other departures of a technical nature.\textsuperscript{51}

\textit{Notation.} Phillipe de Vitry, considered by one authority to be the "father of modern notation,"\textsuperscript{52} expounded in the treatise "Ars Nova" (from which the century has been named; ca. 1320) a new approach to notation. It became possible to write in duple (2/4, 2/2, etc.) as well as in triple (3/4, 3/2, etc.) time, and each note value could be subdivided into two or three of the next smallest value. This system, the mensural notation previously mentioned, remained the norm until ca. 1600 with one principal modification: the transition from black to white notes prior to the midfifteenth century.\textsuperscript{53}

One aspect of notation not yet mentioned deserves some attention: the method of arranging the various voice parts in the manuscripts. Prior to 1225, the standard practice was to align simultaneous tones vertically, as in a modern score. Subsequent to that time, as some voice parts came to have many more notes than other parts, this arrangement was found to waste considerable space and writing material; and for it there was substituted the so-called choir book arrangement. In this plan there is no attempt at vertical alignment: each part is written separately, from start to finish, then the next part is written in the same way, etc. The usual arrangement was for two voice parts to occupy one page of the manuscript, with the other one or two voices on the opposite page of the open book. A modern conductor or keyboard player finds this type of distribution exceedingly difficult to read, and doubt has been cast upon the ability of medieval and renaissance musicians to do so.\textsuperscript{54} In the fifteenth century, choir book arrangement was gradually abandoned in favor of the part-book method, in which each voice is notated on a separate page, so that it is possible to bind together a set of tenor parts or bass parts for a number of compositions; a system corresponding to present practice in orchestral and sometimes on choral arranging.

Score arrangement was revived toward the end of the sixteenth century, and has persisted since then. It should also be noted that bar lines as we know them are not found in the manuscript period.

We find toward the end of this period the introduction of another kind of notation—tablature. Its function was to serve as vehicle for instrumental music. Lute tablatures are of particular interest, for they serve as a guide to finger placement on the instrument, rather than to actual pitches. This system reproduces graphically the fingerboard of the lute, and indicates by signs which strings are to be depressed and where. The technique has certain advantages, and has been revived recently for the notation of guitar and ukulele music.\textsuperscript{55}

\textit{Principal Manuscripts.} As there is a plethora of source material, and the important representatives are given in the \textit{Harvard Dictionary}, pages 702-03, only four codices will be mentioned here. Those chosen are certainly of very great, if not the greatest, value.

For Landini and other fourteenth-century Italians: Bibl. Laur. Pal. 87, "Codex Squarcialupi."\textsuperscript{56}

(Continued on page 48)


\textsuperscript{55} For a brief article with illustrations see \textit{Harvard Dictionary}, pp.728-30. There is a long discussion in Apel, \textit{Harvard Dictionary}, p.495. See also note 57.


\textsuperscript{57} Modern edition by Johannes Wolf (Lipstadt: Kistner and Siegel, 1955).
The New Depository Program and College Libraries

Qualifications to be met by depository libraries under the new law are outlined, and a brief survey is presented of the conditions leading to its enactment. The range of publications issued by the Superintendent of Documents is described, as are current efforts to bring a selection of non-GPO publications under the depository provision. Statistics are given on the cost of government publishing, the extent of distribution, and the number of depository libraries.

The New Depository Program has resulted from the enactment by Congress on August 9, 1962, of Public Law 87-579, known as the Depository Library Act of 1962. There had been a depository library distribution program before that time, of course. As a matter of fact, legal provision has existed since 1857 for distributing government publications to certain designated libraries.

Qualifications and requirements for a depository library are relatively simple. There must be a collection of ten thousand volumes other than government publications, and the government publications selected must be made freely available for public use. A library must have the facilities for providing adequate custody and service for the depository collection. A report of the condition of the library to the Superintendent of Documents is required at least every two years. Finally, publications selected may be disposed of only as provided for by the law.

A basic point often misunderstood is that all depositories must be selective under the law, and that selection of a publications series or other category serves to make available to the depository one copy of each publication subsequently printed in that series or category. Publications cannot be made available for depository distribution on a retroactive basis.

There seems also to be widespread belief that a library may be designated a "partial depository" apart from the structure provided by the depository law. A partial depository is merely one which does not select all of the publications made available for depository distribution. Relatively few libraries are in a position to make the complete selection, which now encompasses some twelve thousand publications a year, excluding congressional bills and resolutions.

By 1962 the existing depository system, dating basically from 1895, had

reached a point where new and modern libraries were sometimes unable to be designated as depositories, despite the fact that they had grown up in areas that had become economically or educationally important because of population or industrial shiftings. The one depository permitted in each congressional district was occasionally occupied by a formerly important library which had become, with the passage of time, among the smaller and less active in the area. The spoils system had been removed from the depository program by a law enacted in 1913 whereby a depository, once designated, continues in that status as long as it meets the requirements of law.

In making provision for increasing the number of Representative depository designations for each congressional district from one to two, and for each Senator from one to two on an at-large basis for the state, Congress attempted to remedy this situation in the 1962 law. It also sought to ease the storage space problems, of the smaller depositories in particular, through a provision for regional depositories in each state which would retain complete collections permanently and offer loan and reference services to the other depositories, which are then permitted to dispose of publications after a certain number of years.

College and university libraries have always been a prominent part of the depository system. The college student today must have a knowledge of the effects and the importance of the study and research in which the United States government is constantly engaged in so many fields, and how the lives of all of the citizens of this nation are affected by it.

It is not surprising therefore to find that, of the first 127 additional depositories designated under provisions of the new Depository Law, eighty were college or university libraries. It is significant that there is active demand for and use of government publications by students and faculties alike. It might seem surprising that some of the publications of greatest value to the scholar are those which have received little publicity or popular acclaim. It is even possible that some might be among the highly technical or complex titles that are occasionally lampooned or otherwise criticized in the public prints. Their practical value could be negative to the manufacturer, industrialist, or businessman, with the only apparent tangible result being the expenditure of the funds which the project entailed. To the advanced student or scientist, however, these negative conclusions can save a repetition of the time and effort which went into them at the time of the original research. The Superintendent of Documents and the Government Printing Office do not, of course, determine, nor do they have any jurisdiction over, the subject matter, title, or necessity for the issuance of the publications that they distribute.

The responsibility of administering a program of the magnitude of that involved in distributing government publications to 792 depository libraries, a number which will increase as the years go by, is a great and costly one for the United States government as well as for the libraries. If a college library contemplates seeking designation as a depository, it should examine carefully and unselfishly its potential for maintaining and servicing a permanent collection of government documents and encouraging the maximum use of that collection. It should have trained personnel who are familiar with government publications and depository procedures. In the hands of competent professional documents librarians, we feel that a majority of depository problems can be solved within the general guidelines which are estab-
Automated Operations in a University Library—A Summary

Repetitive tasks in libraries, as in other industries, are subject to machine accomplishment. The value of an on-line system to library service will probably make it desirable for the university library to install its own small or medium-sized computer within its machine configuration. The activities of each functional area in a conventional library are surveyed as they could be accomplished in a machine-based system, and prospective improvements in service are noted, as well as likely developments of value to library staff. Particular emphasis is devoted to the utilization of machines in the routines of technical services and in circulation control.

The use of machines to accomplish the work of the university library will be limited to clerical tasks, and a useful criterion to judge the intellectual quality or professionalism of a position will be its lack of adaptability to automation.

The ideal machine configuration for a maximum amount of university library automation will include a small or medium-sized computer (an IBM 1440, for example) with tape and disk storage. The system will have to include on-line remote data collection and inquiry stations. It would not be necessary for the computer and its peripheral equipment to be installed in the library, but it would be necessary to locate one or more remote input-output consoles in the library on-line with the computer located elsewhere. Such an on-line system would eliminate much of the usual keypunching and punched card handling as data could be entered into storage directly from the console keyboard. This system, while far beyond any now in library use, is a practical one and not “the world of tomorrow” type of thing. All of the necessary equipment may be had “off the shelf” or on a delivery date from the major electronic data processing equipment manufacturers.

This article is an attempt to define the specific library operations that readily lend themselves to automation at the present developmental level of both the library and the machine.

It should be stressed that many different configurations of equipment are possible to gain much the same results each offering a different level of sophistication, and a different level of costs. Each library must therefore survey its own needs and wants in order to determine the best configuration of machines to accomplish its aims with the lowest costs. For that reason the hardware and its costs will not be discussed in this paper.

When the decision is made to auto-
mate a library fully, the end of many old and familiar "institutions" appears in sight. "Sentimentalists" will soon lament the passing of the circulation file, the card catalog, the periodical check-in file or the central serials file, the outstanding order file, and the daily posting of accounts, among other things. As will be seen, the effects of automation are felt chiefly in technical processes, but public services and library administration are not unaffected by any means.

MACHINE STORED BIBLIOGRAPHICAL DATA (COMPUTER CATALOG)

In a systems approach to the planning of an automated library, it quickly becomes evident that the data stored in the card catalog (and/or the shelf list) is the core of any automated system. Nearly every library procedure makes demands upon or adds to the card catalog data. This, of course, is nothing new to librarians, but it is even more true of an automated system than a manual system.

One of the first projects, therefore, that must be accomplished before complete library automation can be effective is that of getting the card catalog data into machine readable form, i.e., producing what might be called a computer catalog. Fortunately, it is necessary to convert only the main entry data and/or shelf list data, as computer programs can be written to produce all other required entries. Needless to say, this conversion is the most time consuming of all the pre-automation tasks. As an example, Purdue's author catalog contains a few more than four hundred thousand cards. It has been estimated that it will require twenty man years of keypunching to convert it to a computer catalog.

Until recently, it has been impossible to place all of Purdue's author catalog data in immediate-access storage. This would be necessary in order to develop a fully automated library system. The development of the new concept of strip storage (data cell) by one of the large computer manufacturers now makes it possible to have immediate-access storage far greater than was ever available before.

A fully automated library would require that a complete record of every item in the library's collections be stored in such a way that immediate inquiry and response is possible. Anything short of this capability would require compromises that would be less than systems automation. Such a lower level of automation is being developed in some libraries today, and it is quite satisfactory in those limited areas of library services; but for the sake of this paper, we are concerned with a system of the highest sophistication available either now or in the immediate future.

As soon as the computer catalog is completed, the library is in a position to take advantage of the superb flexibility of the computer. Its ability to manipulate data in any desired way enables the library to produce book catalogs of its holdings which offer the patron many different retrieval approaches. Catalogs can be published listing holdings by author, subject, title, series, language, publisher, or in any other way—limited only by the imagination of the systems designer, the librarian, or by the data itself.

The advantages of the book catalog over the card catalog have long been recognized by the library profession, but the lack of a quick and inexpensive method of updating has always handicapped the book catalog. With the development of the computer those limitations have been removed, and we may now confidently expect that the book catalog with its inherent ease of dissemination will eclipse the card catalog.

Aside from the incomparable advantages of the book catalog, when the com-
Automated Operations in a University Library / 21

Complete bibliographical data is in computer catalog form; it is then possible to have immediate access to the library's resources for a multiplicity of uses. The acquisitions unit, for instance, can accomplish much of its searching function by machine. It can also claim outstanding orders or publish its desiderata lists automatically. The circulation unit can automatically print out overdue notices, discharge books, make immediate use of instant unpaid-fine reports, punch out new book cards and print out faculty charge lists, among other things. The reference department can have bibliographies printed out on demand and can maintain exact and up-to-date location records on every book. The demands that can be made on an on-line computer catalog are limited only by the imagination of the library staff. A brief study of some of the possible approaches on a function by function basis will illustrate the point.

SERIALS

There are several libraries with automated serials operations, and their systems have been well described in the literature. An on-line system, however, makes immediate access to computer storage records possible and therefore changes the method of operation somewhat. Since an input-output console would be available, new orders for subscriptions would be “typed” (keyed in) on the console keyboard and the data thereby entered directly into storage. No punched cards are involved in this routine. As a byproduct of the system, the order form would be printed out automatically, but the major concern would be to enter as much information as possible about the serial being ordered. The title, publisher, price, agent, beginning issue, date of order, order number, frequency of publication, language, country of publication, subject, budget information, etc., are some of the data that would be entered at ordering time. Data not known, such as binding pattern, call number, exact entry (in some cases), availability of indexes, title pages or table of contents, etc., would be entered at the time of cataloging. Duplicate subscriptions could be completely entered as all of the information would be known or could be determined at the time of ordering.

As soon as all known information is in storage, the order form would be printed out ready for mailing, the in-storage budget records updated, in-storage statistical records updated, and the bibliographical data would be ready for inclusion in the next issue of the library's serials catalog as a title “on order.” If a typical machine check-in system is used, the correct number of arrival cards anticipating the arrival of the next few issues would be punched.

When the first issue arrives in the library, the correct arrival card would be pulled from the file and the issue sent to be cataloged. The arrival card would be returned to the computer to indicate the receipt of the issue. After cataloging, all previously unknown data would be entered into the computer catalog either by keying it in or by the usual punched-card input method. It would then be possible, with the proper computer programming, to accomplish automatically any number of serials routines. The person who ordered the subscription could be notified by a printed-out notice that the first issue was available, all future checking-in would be handled by the return to the computer of automatically punched arrival cards, a claim system would be ready for use when needed, lists or catalogs of serials could be printed out by any retrieval approach desired, want lists would also be available on demand and by any approach desired, and statistical analyses and forecasts could be run continuously.

Statistical analysis of the serials collection can make available to the library
administrators much information that is useful in the development of a balanced collection. The number of serials by subject field, language, etc., will help indicate the areas needing increased or decreased emphasis. Statistics on duplication can indicate those departmental libraries or subject fields most likely to be ordering titles already available elsewhere in the library system. Statistical reports can be had on subscription agency or publisher response time to orders, claims, and correspondence.

A useful little service, in lieu of a circulating journal system, can be made available to the faculty by tying an automatic notification procedure to the serials check-in system. When a new issue of an irregular serial is entered into the computer catalog by the return of an arrival card to the computer, a notice of the issue’s receipt could be printed out ready for mailing to the faculty member. This could be done for any serial, regular or irregular, but it is probably unnecessary with regular serials, as it is not difficult for interested persons to remember when regular publications are usually received in the library.

**Binding**

The routine preparation of serials for binding can be reduced to little more than leg work for the library staff. The computer can be programmed to punch a card automatically and print out a binder’s slip for each “bindable” serial title when the appropriate time arrives. This then leaves library personnel with the job of removing the issues from the shelves, charging them, collating, and tying them for shipment. After the bound volumes are returned to the library, the punched cards are used to update the library’s records of volumes bound.

The computer can be required to meet any number of conditions before it may punch the binding card. Examples of such conditions are as follows.

1. Has the first issue of the next volume arrived in the library?
2. Has the index and/or title page and/or table of contents arrived?
3. Has the departmental library concerned used its binding quota?
4. If the title is duplicated elsewhere on campus, are other copies of the volume available while one is at the bindery?

Under such a system the library is obviously granted a level of control over its routine binding operations that is not possible under a manual system.

A variety of useful statistics are available with no effort on the part of the library staff, and the backlog of unbound journals on the library’s shelves becomes obvious through the ever growing file of binding cards punched out but not processed because the volumes so represented have not been sent to the bindery.

**Gifts and Exchanges**

In the area of gifts and exchanges the obvious application of mechanization is that of desiderata lists and lists of titles available for exchange. The computer can easily coordinate the acquisition unit’s lists sent to dealers with those of gifts and exchange sent to other libraries, so that the same title will not appear on both lists at the same time.

The computer can also easily maintain records of exchange agreements and automatically review the activity (or lack of it) with each agreement. For serials, the arrival card is the basis of this operation; for monographs, it would be necessary to keypunch or key in the data indicating the receipt of an item. This would be done at the time of cataloging.

Records of gifts received can be maintained and acknowledgements of those gifts printed out in whatever form is appropriate, providing there is no objec-
tion to present day computer-type fonts appearing on such acknowledgments.

A large percentage of the gifts received in any library is pamphlet material. A very small number of pamphlets are worthy of permanent inclusion in a library’s collections, but many pamphlets are worthy of temporary availability to patrons. The ease of clearing the library’s records in an automated system makes it financially feasible to include almost any ephemeral material in supplemental or temporary book catalogs or in subject lists. In fact, clearing such records can be automatically accomplished by including a future date in the input entry, for computer comparison each day with the current date. When the future date is reached, the computer will “cleanse” itself, and the pamphlet can be discarded on that date without further concern.

ACQUISITIONS

The library’s order unit, like its serials unit, handles much information daily that requires immediate, or at least ready, access. Questions regarding the order status of books usually require immediate answers, and an on-line system has this capability. Such a system also makes it possible to transfer some of the order unit’s searching responsibilities to the computer. In a typical manual system when an order is received, it is of course necessary, after verification, to search it against the outstanding order file and the library’s card catalog. If the title is found to be in either file, no further searching is necessary, and the order, if it is to be placed, is processed using the bibliographical data already on file. This part of the acquisitions routine can be turned over to the computer in libraries where large numbers of publications and other materials are ordered.

The same routine, but on a machine system, would be handled as follows. After verification, the bibliographical data taken from the request form would be keyed directly into the computer, and, through proper programming, a code would be automatically created. The computer would use this code to match against like codes previously created for each item in the library’s collections or on order. If a “hit” is made on the code being searched, the computer would immediately print out the necessary bibliographical information and indicate possible duplication so that a decision can be made on the desirability of continuing the ordering procedure on that item. The computer, incidentally, can be programed to make some of these decisions itself.

The codes used for this type of matching procedure consist of the first few letters of several key words or names in an entry. Such codes are simple for a computer to generate automatically.

If the material requested is to be ordered in spite of a “hit,” or if no “hit” has been made—which indicates that the item is not in the library’s collections—the bibliographical and budget information would be keyed in for a second pass.

On this pass the ordering procedure is completed when a purchase order in the necessary number of copies is printed out, the proper fund is encumbered, the search code is entered into the file for future searches, and the bibliographical data is established as a new entry in the library’s records.

A claiming cycle would also be established, so that if the cycle is exceeded, the machine will automatically print out a claim notice.

If the book is o/p or for any like reason will not be received, it can be tagged in storage as a desiderata title and listed out with other such titles for distribution of the lists to o/p dealers.

After receipt of the book, new data would be entered indicating the various stages of processing as the book pro-
ceeds thru cataloging, marking, etc., until ready for circulation. Periodic printouts reflect the book’s movements through the course of technical processing.

When the invoice is received, appropriate changes would be made in the necessary accounting records by keypunching or keying-in data, and budget statements would be produced as needed.

Upon completion of the cataloging, the work slip would be sent to the console operator who would insert the final bibliographical information into the system so that the title would appear on the next printout as a completed item. The data would also be flagged in storage as an item to appear in the next issue of the library’s new books bulletin. This bulletin, incidentally, would be automatically produced on a stencil or multilith master ready for duplication at the proper time. At this point any necessary catalog cards could be automatically produced, although an automated library would not be likely to need such cards.

Any statistical analyses that are useful to library administrators in the development of a balanced book collection could be had for the price of button pushing. Statistical analyses of duplication by department or subject area, and the related costs, would be available for the asking.

If the library administrator wants to compare the response time of dealers, or their discounts, or the number of their invoicing errors, he can do so because the computer can easily “remember” such information.

The area of acquisitions work, however, that has the greatest need for automation, but cannot under present conditions be automated, is that of bibliographical verification.

In order to automate this phase of order work it would be necessary to place in a random access file all of the bibliographical sources now searched manually. The crux of the problem rests in two areas, input and costs. Obviously, it is ridiculous to attempt to keypunch or key in the entries in Cumulative Book Index, National Union Catalog or Publishers’ Trade List Annual to say nothing of the major foreign bibliographies. The tremendous mass of data involved and the constant revision required demands the use of character recognition machines or some other rapid input media not now available.

The most promising route of solution at the present time is through the publishers of these bibliographical titles. If during their typesetting operations, the publishers would duplicate the data into punched cards or paper tapes, the data could be read directly into computer storage in libraries. While some method of operation worked out with the publishers might solve the input problem, the difficulties of storage capacity and accessibility can be solved only by technology.

The present day limitations of both input and electronic storage for this mountain of data brings us to the next problem—costs. The least expensive mode of storage, magnetic tape, is almost useless when such enormous quantities of data are subject to random recall. The cost of searching many tapes in an effort to find a specific item of data is prohibitive when mass searching is involved.

The other modes of storage, the random-access types, are too limited in capacity and therefore too high in costs to be helpful at present. It is possible that the new strip storage may offer a solution, but this remains to be seen when that mode becomes available and better known.

**CATALOGING**

The problem of data input and storage vitally concerns not only the area of acquisitions but also the area of cata-
Automated Operations in a University Library

If all of the major bibliographic sources could be in an immediately accessible machine form, computers could be of much greater help to catalogers than is now possible.

The ideal system, however, would be that of facsimile transmission of cataloging copy from a large cataloging center—the Library of Congress has been suggested—to all of the major research libraries in the country. Such a system would eliminate all cataloging in the other libraries, except perhaps that which stems from local or special interests.

Since that utopia is not yet with us, it is necessary to settle for considerably less in the area of cataloging automation. Even at the deficient level of automation available to us today, much can be done to relieve catalogers and their clerks of some of the dull repetitive tasks necessary in their field.

Any library mechanized to the extent discussed in this paper would have disposed of all card catalogs and would depend on computer printouts and book catalogs. This in itself would eliminate all card duplication and catalog maintenance problems and the high costs involved therewith. The computer would maintain the library's catalog records whenever instructed to do so by key-punched or keyed in data. A really happy situation would be that of a cathode ray tube display system used to recall from storage data needing corrections or additions, and to display it in a readable form while the corrections are being made. The same thing can be accomplished less efficiently (and less dramatically!) by reading computer printouts and keypunching or keying in corrections.

In any event, cataloging work slips would be turned over to key-punchers or console operators instead of to typists, and the necessary book cards, labels, and any other printed paraphernalia would be made available automatically. If it is the custom of the library, patrons could be notified by printed forms of the availability of new titles requested by them.

The development of a computer catalog makes possible more rapid acceptance of new subject headings because of the ease with which changes can be made in mechanized systems.

**Circulation**

A circulation department using online data collection and inquiry stations would probably operate with the pre-punched book card and the prepunched patron's identification card as the nucleus of the system. There are mechanized circulation systems that operate without the book card, but none of them are as efficient as those that utilize book cards.

The book card would have punched into it an identification number unique to the book and an author-title code resembling the codes described in the section on acquisitions. Additional information could be coded into the card depending on the results expected from the system and the space available on the card. The cards usually used for circulation systems are only fifty-one column cards so as to fit neatly into book pockets, and, therefore, space is rather limited.

When a patron presents a book for circulation, his identification card containing his prepunched ID number is placed into a slot in the data collection unit. Simultaneously, the book card is placed into a second slot in the same unit, and electrical impulses automatically record the transaction. The date due and any other information can be recorded at the same time either automatically or by keying it in.

Since the library has a computer catalog, the computer can immediately look up the full identification of the book and automatically flag that title as being in circulation. It can also up the circulation
count for the library's statistical records, up the count on that individual book by one, look up the full identification of the patron and record that a freshman or a faculty member or a janitor or a mother of four or a teenager with red hair and/or anything else has taken out a book on a certain subject. Any conceivable combination of information about the transaction can be had in a fraction of a second after the transaction has been recorded. In fact, any response required would be printed out so quickly that it would be instantaneous for all practical purposes.

The system can also serve as a policeman in that it can immediately notify the circulation clerk if the patron has not returned overdue books, is using an invalid ID card, has not paid a lost book charge or owes a fine—it will be happy to print out the bill at a moment's notice. If it is the library's responsibility to account for fines, such accounts would be automatically updated when a fine is paid or when an overdue book is returned.

When a book is returned to the library, it is discharged by removing the book card from the pocket of the book, inserting the card into a data collection unit for a few seconds and returning the card to the book pocket. The book is then re-shelved hopefully to await the next patron.

If a patron cannot locate a book at its proper place in the library, it is, of course, hoped that he will inquire at the circulation desk. This situation can be handled in different ways, one of which is that the clerk would key in the call number of the book wanted and press a program key asking the computer for the present location of the book. The system would print out the answer immediately. Any question about an item on order or any information wanted from the student registration file can be answered in this way.

If a patron requests that a book be reserved, the call number can be keyed in, the proper program key pressed, and the job is done. When the book is discharged the reserve status would automatically be noted by the computer, and a notice ready for mailing to the patron printed out.

Lists of charges can be printed out in any useful way. Charges by faculty member, by study carrel, by due date and overdue charges, come to mind immediately.

Obviously, a system such as this would be a tremendous boost to any library, but there is one difficult problem concerned with the establishment of such a system that handicaps the large libraries who are the ones most in need of it. That problem is the necessity of producing the book cards for the retrospective book collection—a small matter of creating one card for each of the thousands of volumes in the library.

A library that has begun its automated system by developing a computer catalog has little problem. The computer will happily punch out all the book cards needed, and, after interpretation, they would be inserted in the books. This insertion can be completed in one of two ways—as a crash program, or as books circulate the correct card is inserted. A wonderful byproduct of this routine is the inventory of the whole collection automatically taken!

Those libraries that have not or cannot begin their mechanization with a computer catalog have other avenues open that would enable them to install a mechanized circulation system. None of the other methods, however, can compare with the system described above.

One of the alternate approaches used to create the necessary cards is that of charging a book in the usual manner and keypunching the book card while the book is in circulation. The original (manual system) charge is sent to the key-
punchers who then punch and verify the book card. When the book is discharged the new card is then inserted in the pocket. This approach eventually solves the problem, but it takes forever to complete the work because rarely circulated books keep cropping up. It has, however, the advantage of spreading costs over a long period of time; furthermore the most active books are the first ones to have cards made for them.

A variation on that theme is possible if a data collection station with a card punch attached is installed in the library. As the data describing the book is keyed in on the collection unit, the necessary data is punched into a book card automatically. This method produces a book card that can be immediately inserted in the pocket. This, however, brings up the problem of entry—it is sometimes difficult or not at all possible to determine the correct entry from the book itself.

A third approach is to mark-sense the call number on a Hollerith card when the book is circulated. Later, the correct entry and any other information can be added from the shelf list and the card keypunched or punched automatically on a reproducer.

The last two methods discussed are, unfortunately, likely to be error prone. The human error problem can limit the dependability of any routine that operates on either keyed in or mark-sensed data unless extreme care is used to prevent errors. If errors can be held to a minimum, either method of input is excellent.

As in the technical processes systems described previously, statistics of all sorts can be had from an automated circulation system. Brief examples would include such statistics as circulation totals by subject, language, etc., totals on each book circulated, and comparisons between various classes of readers and the type of materials circulated to them.

Reference

Like cataloging, much of reference work requires human intellect and, therefore, does not lend itself to machine methods.

The best example of the use of automation in the reference field is that of the machine information retrieval systems so well discussed in the literature. These highly specialized fields are beyond the scope of this paper and need not be discussed here.

In a library devoted to general literature and in which the collections cross all lines of human intellectual endeavor, the contribution of present-day data processing systems to reference services is of somewhat limited value. What the future holds for this area will be of great interest to the library profession, but advancement will probably be slow because of the many library areas needing attention that more readily lend themselves to mechanization.

Obviously, the various book catalogs produced from the computer catalog constitute a major assist to the reference librarian.

The capability of on-line inquiry would also be of major benefit to reference services. This capability would enable the reference librarian to receive the most up-to-date bibliographical information available in the catalog, and the ease with which changes can be made in the computer catalog enables the library staff to move materials freely from one location to another without involved record keeping.

In addition to the above, library automation can at present make a major contribution to reference services through the production of abstracts, machine indexes (KWIC and standard), and demand bibliographies.

A service that would help to clear a minor problem area for reference librarians is that of keeping records of
translations of books and journal articles previously found. The bibliographical data could be entered into a special computer catalog maintained for such purposes. The same can be done for answers previously found to difficult questions most often asked, or any other data of use to the reference staff.

The advantages gained in using a computer over manual methods for such work are not great, but they do exist. The computer cannot be surpassed or even equaled by any manual method of updating, listing, and manipulating data. If such minor uses are developed throughout the library system as by-products of other computer operations, the best possible efficiency can be gained.

The costs of the computer exist whether the machine is used or not, and such employment is certainly much more useful than playing checkers or tic-tac-toe just to keep the computer busy.

A reference service that is increasing in popularity is that of selective dissemination of information. This matching of a patron's interest profile (keywords derived from the patron's specialization) with a document profile (keywords derived from the document or from a keyword dictionary) functions as an excellent current awareness service. The major problem concerned with it is the cost of producing the necessary abstracts.

**INTERLIBRARY LOAN**

This field of interlibrary communications is one of the most promising for future expansion as the necessary equipment is developed and as costs drop to a feasible level for libraries. The future will bring many advances in the way of inquiry stations located in libraries forming communication chains with input-output consoles or cathode ray tube display, television display, etc. These things, and others more dramatic, will come to pass in specialized situations, but how quickly they will be economically justifiable in general libraries remains to be seen.

In any event, much can be done today with the tools at hand in an automated library with its computer catalog. The distribution of interlibrary loan materials is, of course, a circulation process and, as such, would operate just as any other on-line circulation system. There is also a searching function involved, and it would be handled just as was described in the sections on acquisitions and cataloging. Both functions would operate off the same computer catalog used by all other units of the library.

The usual statistics necessary to evaluate the work of an interlibrary loan unit would be automatically accumulated as the unit's work was carried on each day, just as would be done for any other library activity. Necessary accounting for postage and microfilming (or other duplication) charges would be controlled in the same manner as any other financial accounting in the library.

**RESERVE BOOK ROOM**

As with interlibrary loan, the reserve book service is, of course, a circulation function and, as such, would operate as the others previously discussed. Its statistics would be collected automatically as the work was performed and fines, if any, handled automatically as well.

The computer catalog would be an extremely useful tool in making available to patrons lists of books on reserve by course name or number, author, title, and subject. At the end of each semester, lists of the titles then on reserve could be produced without human effort and sent to each faculty member for deletion and addition.

Special statistics could easily be collected showing the use made of each reserve book and the length of time the book was presumably used by each student.

To change the records as books are
placed on or taken off reserve would be a simple matter of keying in the call number and pressing a program key to flag the title in the computer catalog or, conversely, to “unflag” it.

**TECHNICAL REPORTS COLLECTION**

The technical report literature being produced today in such great mass points to one of the outstanding examples of the failure of traditional library methods to cope with the scientific and technical knowledge of the day. This highly specialized literature simply will not fit into the subject straitjackets so loved by many librarians. In order to be satisfactorily retrievable, it is necessary to use methods other than the traditional ones based on the irrelevant classifications of knowledge and on broad subject divisions.

One of the major problems involved with the retrieval of this literature is the need for very minute subject classification. This requirement necessitates special concern for this limited area that is not possible in most of the overworked libraries of today. Regardless of the system used to organize this literature, humans are still necessary to prepare the material for input. It is not necessary, however, for professional librarians to be saddled with this work. It has long been known that people not well versed in science and technology can write excellent abstracts of and assign descriptors to technical literature. Such people working with the proper equipment and under good supervision can develop very fine retrieval systems.

A new technical document entering a library’s collection can be quickly abstracted by a person concerned only with this type of literature, and descriptors can be assigned from the document or from the abstract itself. Reference to a descriptor dictionary is necessary for the same reason librarians use lists of subject headings, but this function can be carried out on a computer. Equivalents in terminology can be stored so that the computer will always know the preferred term. Finally, a unique number, not necessarily of any special significance, must be assigned.

The bibliographical citation, the descriptors, and the abstract would be read into random-access memory and would then be available for listing out in any retrieval approach necessary. In essence, a small computer catalog is created for specialized material, and a system of this kind can be developed for any special collection needs.

Depending on the equipment available, more sophisticated systems can be designed around various types of microstorage, reproduction, and display systems that are now available on the market.

**BUDGET AND ACCOUNTING**

It need not be pointed out that budget forecasting is commonplace in the business world even though it is rare in the library field. Library administrators would do well to look into the use of computers for forecasting budget needs, such as book and subscription prices, salary and wage trends, and equipment requirements and costs. The computer can tell the administrator what to expect in future binding costs according to the library’s past rate of serial and book acquisitions. It can tell him which parts of his book and serial collections can be relegated to storage with the least probable service costs in future demands, and it can make educated guesses as to his future supply needs based on past consumption.

An automated accounting system using the same on-line equipment and drawing its data from regular daily library input can make constant checks on the rate of fund expenditures, thereby pointing out funds spent too rapidly or too slowly. It can analyze publishers’...
The recommended ratio of professional to nonprofessional staff members in university libraries varies from 50-50 to 33-67. Clear demarcation of the respective duties of each group is needed not only if faculty status is to be attained by the former but also in the interest of human economy. The universities of California, Illinois, and Michigan have done more than most to develop detailed job specifications. Summaries of descriptive data are given from each of these three, and additional comments are drawn from other sources, including: position classification standards of the United States Civil Service Commission; a study made in 1948 by ALA; and other institutional practices. Educational preparation of librarians is discussed. Common to all professional assignments should be administrative authority, policy initiation, bibliographic expertise, specialized subject or linguistic background, or ability to plan new programs by library technology.

It is generally agreed that library staffs should be composed of two categories of workers: (1) professional librarians performing duties of an educational and research nature, requiring professional training for competent performance; and (2) clerical and other nonprofessional or subprofessional personnel who will be responsible for more elementary, routine, and mechanical tasks. Considerable support exists among administrators for a further breakdown, i.e., for three rather than two divisions: professional, subprofessional, and clerical. The rationale is that in large libraries many subprofessionals, who would not require library school preparation, could be employed and trained to achieve satisfactory skill in the performance of a few narrow phases of library work.

The percentage of the staff that ought to be classified as professional or academic and the proportion clerical or nonacademic usually varies with the organization and size of the library. As a general rule, experts in administration believe, not more than one half of a university library staff should belong in the professional category, and a ratio frequently recommended is one-third professional and two-thirds clerical. Otherwise, it is probable that professional personnel will be performing clerical and subprofessional duties.

A recent investigation by Eugene D. Hart and William J. Griffith of the University of Southern California, based on
a list of one hundred duties equally divided between professional and nonprofessional, concluded that “professional librarians are involved to a significant degree in the performance of nonprofessional duties.” Several reasons were suggested for such situations.

1. Library administrators and supervisors are often oblivious to the problem and to the true nature of professional library duties.
2. A general disregard commonly exists with respect to the assignment of nonprofessional duties to professional staff members.
3. Due to the general shortage of personnel in libraries a pyramiding effect of duties results, and work assignments are sometimes made to professional and nonprofessional staff members without regard to the nature of these assignments.

For university librarians the matter of definition of duties is of fundamental importance in the achievement and maintenance of academic or faculty status. An essential first step in gaining proper recognition of librarians as members of the academic staff is making a clear distinction and separation between professional and clerical duties in libraries. The most valid objection to the acceptance of librarians into academic circles is that in some libraries there are alleged to be too many routine, nonprofessional jobs carried on by “professional” staff members. The administrator can hardly defend as professional such assignments as checking in current periodicals, charging out books across a loan desk, filing catalog cards, typing orders, reading book shelves, keeping financial records, binding pamphlets, and all the other necessary but obviously subprofessional activities that go on in libraries.

As a corollary, since there are only so many working hours in a day, librarians who are required to spend a substantial portion of their time in performing clerical routines must neglect opportunities to make important and useful contributions of a professional character.

The separation in actual practice of the two types of duties becomes more feasible as the library increases in size. In small colleges it is not unusual to find only one full-time librarian—with no assistance other than part-time student workers—who is therefore compelled to do something of everything, even janitorial services. Any institution which can justify the title of university, however, will operate its library on a higher level.

Any absolute division between academic and nonacademic or between professional and clerical duties may in some instances be impracticable. Unquestionably there are certain tasks borderline in nature which can be as well done by the skilled nonprofessional as by the beginning professional. Nevertheless the characteristics of the two are sufficiently dissimilar to permit reasonably clear distinctions to be made. Much basic work has already been done in determining which library duties are professional and which are nonprofessional. The most detailed analysis was issued sixteen years ago by a subcommittee of the ALA Board on Personnel Administration, under the title *Descriptive List of Professional and Nonprofessional Duties in Libraries* (1948). Therein library activities are grouped under thirteen headings and professional and nonprofessional duties separated in each category. A few years later the California Library Association’s Committee on Library Development, under the chairmanship of Edward A. Wight, made a significant contribution to the field with its report entitled *Separation of Professional and Nonprofessional Work in Public Libraries* (1952), much of which has relevance for other types of libraries.

The most recent comprehensive sur-
vrey and attempt to define kinds of responsibilities comes from England in a small book issued by the Library Association in 1962: *Professional and Nonprofessional Duties in Libraries; a Descriptive List Compiled by a Subcommittee of the Membership Committee of the Library Association.* The English study acknowledges extensive dependence upon the ALA list, but it takes into account later developments in library science as well as practices peculiar to Britain.

A number of other references bearing more or less directly upon the question of professionalism vs. nonprofessionalism in libraries are appended.

In connection with the present study university libraries in various regions of the country were asked to furnish job analyses or descriptions which might shed further light on the matter of definitions. For the most part, the results were meager; either no job analyses had been done or the descriptions were too brief and general to be of value. Among the institutions which have developed reasonably detailed specifications for the several levels of professional librarians are the University of California, the University of Michigan, and the University of Illinois. The organizational patterns are similar, each stating minimum qualifications as to education, experience, knowledge, and ability for all categories, from beginners with professional training but no experience, to advanced standards set for chief administrators. In general, no staff member is classified as professional without a college degree and a year of graduate study in an accredited library school, or equivalents.

For purposes of illustration and comparison, summaries of descriptive data for these three major university library systems follow:

1. **UNIVERSITY OF CALIFORNIA.** Since the University of California libraries achieved academic status in 1962, sections of the University Administrative Manual relating to libraries and librarians have been in process of revision and amendment. Currently under review are these criteria:

   **Librarian I:** Entry professional level. Performs a variety of professional library work under direction. Service in this class would usually be for two or three years during which time careful supervision would be given in order that incumbents be prepared for more independent responsibility.

   **Librarian II:** Full professional level. Performs difficult professional work with considerable independence, applying knowledge of library methods and often of a specialized subject field. May supervise nonprofessionals and/or serve in a team leader role over other professional librarians. Management and supervision, although they may be exercised, do not require the major portion of time.

   **Librarian III:** Performs complex professional work and assumes responsibility for: (a) the administration of a moderately large department, branch, or unit; or (b) application of difficult analytical techniques to certain aspects of library operations; or (c) development and/or management of specialized collections involving selection of material, guidance in technical processing, interpretation of the collection, and provision of advanced reference service for users.

   **Librarian IV:** Positions in this class are characterized by substantial independent responsibility and action. Incumbents have over-all responsibility, frequently assignable in only general terms for: (a) the administration of a large branch, large department, or a group of departments; or (b) application of difficult analytical techniques to a number of aspects of library operations, frequently working in great detail on a major element of activity; application of various technologies, machines, and systems to sev-
eral aspects of library operations or one broad aspect in great detail; or (c) development and/or management of a subject collection, selectively developed, to at least the general research level; a group of subjects selectively developed jointly for an academic program; and exhaustive area, language, or subject collection with responsibility for complex problems in developing the collection.

Librarian V: Positions in this class are characterized by a very high degree of independent responsibility and action. Incumbents have over-all responsibility, usually assignable in very general terms for: (a) the administration of a very large and complex department, branch, unit, or group of departments; or (b) application of complex analytical techniques to major aspects of library operations and the development of new routines and services, using advanced techniques from business and industry as well as from librarianship; or (c) development and/or management of: an extensive collection in a major discipline, group of languages, or large geographical area; an extensive specialized collection involving several subject fields and containing material of primary interest to researchers; an exhaustive collection covering a broad subject or important segment of a subject.

Assistant University Librarian: Positions in this class provide administrative assistance to the university librarian. Incumbents are delegated responsibility for the work of groups of departments and for carrying out or directing work of general management, with authority to act within the limits of established policy. With the university librarian, they formulate new plans and policy and seek solutions to problems involving the whole library or major areas of the library.

2. UNIVERSITY OF MICHIGAN. At the University of Michigan professional librarians have "equivalent" status rather than academic ranks or titles. As in California, there are five classifications or groupings below the top level of library administration. The distinguishing characteristics and typical tasks assigned to personnel of each class are set forth as follows:

Librarian I: This level constitutes the beginning professional level of librarianship and performance of professional duties. Includes elementary reference, cataloging or classification work, or performance of circulation or order routines requiring application of professional knowledge. Professional work performed is reviewed by supervisor for format, adequacy, compliance with instructions. Circulation and some service functions are performed independently but within a limited scope. Typical of such positions are: Performance of elementary reference work with work reviewed upon completion, and covering a well-defined subject matter field; descriptive cataloging of material involving few problems in establishment of entries; adapting printed Library of Congress catalog cards; revising filing performed by clerical workers; subject cataloging, with revision, of material in a limited subject matter field with no deviations from approved guidelines; performance of circulation and order routines involving supervision of clerical workers, with primary responsibility for professional functions. Administrative responsibility is not normally found at this level; performance of professional work in departmental libraries in which there is no final responsibility for library administration. Minimum qualifications: an AB or BS degree or the equivalent, and a graduate degree (fifth-year degree) in library science; in exceptional instances, specialized training and/or experience may be substituted for part or all of the educational requirements.
Librarian II: This level includes all positions the duties of which involve application of professional knowledge or experience in supervision and/or performance of difficult, responsible tasks. Bulk of duties are performed independently; professional duties are subject to review, however, and supervisor is available for consultation when necessary. Typical of such positions are: Supervision of professional duties of average difficulty performed by lower grade professional employees; performance of professional duties of a more difficult, technical nature; beginning level of responsibility for operation of a divisional library and providing of reference services therein and initial responsibility for book selection and acquisition functions; initial responsibility for book selection or processing in a centralized acquisitions organization, where professional decisions are required; performance of circulation or order routines of a supervisory or administrative nature with responsibility for a small group of professional or sub-professional employees. Minimum qualifications: graduate degree (fifth-year degree) in library science. In exceptional instances, specialized training and/or experience may be substituted for part or all of the educational requirements; two years of professional library experience, for part of which graduate study beyond-or other than-the fifth-year library degree may be substituted.

Librarian III: This level includes all positions the incumbents of which perform independently, professional duties of a very difficult nature; or supervise performance of technical duties of a moderately difficult nature; or perform administrative duties comparable in difficulty to professional duties above in a public service department of the library or divisional library; or serve as acting head of a large department, in the absence of the department head, in addition to carrying out regularly assigned duties at the level of Librarian II. Typical of such positions are: unrevised descriptive cataloger of difficult material including scientific, serial, and foreign publications; subject cataloger of difficult material; principal administrative assistant to the head of a major department, with a definite assignment of specific administrative duties; supervisor of a divisional library of medium scope and complexity (size and scope of collection and nature of service demands are determinative). Qualifications: graduate degree (fifth-year degree) in library science. In exceptional instances, specialized training and/or experience may be substituted for part or all of the educational requirements; four years of professional library experience for part of which graduate study beyond—or other than—the fifth-year library degree may be substituted; administrative and supervisory experience, where appropriate.

Librarian IV: This level includes all positions, the duties of which are to supervise and/or perform the most difficult, professional work; or to serve as assistant head of a large department; or to perform administrative duties as acting head of a large department in addition to regularly assigned difficult technical duties; or to be assigned responsibility for a major divisional library. Incumbent performs work without immediate supervision, with responsibility for program planning, library administration, or acts in an advisory and staff capacity to supervisory and administrative officers. Typical of such positions are: supervisor and coordinator of difficult cataloging or classification; deputy head of a large department who may additionally perform difficult technical or reference duties; supervisor of a divisional library of large scope and complexity (size and scope of collection and nature of service demands are determinative); head of a small department who supervises work of a moderately difficult na-
ture performed by professional and clerical personnel, with responsibility for administrative functions inherent in such a position; independent performance of extremely difficult professional duties requiring specialized knowledge and/or experience. Qualifications: AB or BS degree or the equivalent; graduate degree (fifth-year degree) in library science. In exceptional instances, specialized training and/or experience may be substituted for part or all of the educational requirements; five years of professional library experience for part of which graduate study beyond—or other than—the fifth-year library degree may be substituted; demonstrated administrative and supervisory ability where appropriate; subject specialization where appropriate.

Librarian V: This level includes all positions the duties of which are to supervise the activities of a department, usually through subordinate supervisors; includes responsibility for staffing and assigning duties; recommending establishment or major changes in policy and establishing procedures within well defined library regulations. Included are positions of a policy-making purpose, which may not involve direct supervision of a department, but whose authority and recommendations are of as responsible and influential a nature as those at the department head level. Also included are the supervisors of major divisional libraries who bear primary responsibility for adapting and developing the collections and services to the advanced research and instructional programs of the units served. Qualifications: AB or BS degree or the equivalent; graduate degree (fifth-year degree) in library science. In exceptional instances, specialized training and/or experience may be substituted for part or all of the educational requirements; five years of professional library experience for part of which graduate study beyond—or other than—the fifth-year library degree may be substituted; demonstrated administrative and supervisory ability where appropriate; subject specialization where appropriate.

In the University of Illinois library, where the professional staff has had academic status since 1944, the grouping is similar, but by rank. The requirements as to education, experience, and personal qualifications are also closely analogous to those of the California and Michigan systems. The duties by level are described as follows:

Library Assistants. Perform routine professional duties in the technical or public service departments of the library under immediate supervision. In the technical departments may be assigned relatively difficult bibliographical problems requiring subject, bibliographic, or language specialization involved in the acquisition and cataloging of library materials. In the public service departments may give reference service to students and faculty, compile bibliographies, give special instruction and assistance in the use of the card catalog and special indexes and assist in book selection. In some areas may supervise clerks or student assistants.

Librarians with Rank of Instructor. Given more difficult assignments in the acquisition and cataloging of new library materials; may assist in the training and supervision of new professional, clerical, or student assistants; offer formal or informal instruction in the use of the library; assist with interlibrary loans and give reference service involving difficult bibliographical problems which require subject, bibliographic, or language specialization and the use of unusual library sources and a knowledge
of the general library resources. May be in charge of smaller departmental libraries or special reading rooms, assuming responsibility for reference work in special subject fields, selection and acquisition of books, periodicals, and other materials, assisting faculty and students in their class work and individual research problems, and training and supervision of their professional, clerical or student assistants.

Librarians with Rank of Assistant Professor. Under general administrative direction have considerable latitude for the exercise of individual judgment in their positions; may have substantial responsibility in the technical departments or may be in charge of departmental libraries or assistant heads of departments or departmental libraries; may act as consultants or cooperate with nationwide library agencies on policies of bibliographical sources and form; give lectures or conduct courses in bibliography and reference as part of the curriculum of a university department or the library school; if in charge of college or departmental libraries, they may serve on the college or departmental library committee and attend faculty meetings, and must be familiar with the educational policies and objectives of their college or department and alert to curriculum changes in order to provide necessary library materials; have responsibility for reference or research work in their areas and assist faculty and graduate students with their research problems; through their knowledge of acquisition problems, book markets, publishers, resources of learned societies and scientific institutions and organizations, assist in developing library resources; usually active in national and state library organizations and other educational associations.

Librarians with Rank of Associate Professor or Professor. In this group are the dean of library administration, the associate directors for the public and technical services, the assistant director of the public service departments, the personnel librarian, the librarians of the medical center library and undergraduate library in Chicago, the library administrative assistant, the department heads (acquisition, cataloging, circulation, reference, and serials), and librarians of the large college and departmental libraries. The department heads and departmental librarians have responsibilities comparable to those in the preceding rank. The personnel librarian is responsible, with the advice and approval of the dean and two associate directors, for securing all library personnel—professional, clerical, and student—and formulating and administering personnel policies. The dean is responsible to the president of the university for the operation of the library and coordinating its services with the educational program of the university. The associate directors, through their department heads, are responsible for the work of their divisions; they advise with the dean on problems of general library policies, and the preparation of budgets.

For comparative purposes, it may be useful to outline the characteristic duties and responsibilities of three grades of library clerks in the University of Illinois library, listed as follows:

Library Clerk II. Assist in routine circulation and reading room services; give out information as authorized; prepare basic library records; do routine checking of records, catalogs, and trade bibliographies; receive, record, and route new acquisitions; make simple changes or additions in catalog and other records; do library filing; keep statistical records; handle mail and routine correspondence; repair books; prepare materials for binding; assist in book inventory; supervise student assistants.

Library Clerk III. Be responsible for the
efficient performance of clerical duties in a division of the library as assigned; assist in circulation and reading room services; give out information as authorized; do searching in library records and bibliographic tools; supervise the recording and routing of the routine types of new acquisitions; do library filing, revise certain types of filing, and make additions or changes in library records; prepare statistical and time records; assist in book inventory; care for and issue supplies; train and direct clerical and student personnel; handle mail and routine correspondence; repair books; prepare materials for binding.

Chief Library Clerk. Under general supervision, is responsible for the efficient clerical operation of a principal administrative library unit, including the performance of clerical library personnel, interpretation of library records to staff and faculty, routine bibliographical checking, keeping statistical records, and performing related duties as assigned.

A number of additional university libraries have drawn up job descriptions of the nature of those presented from California, Michigan, and Illinois; e.g., Ohio State, Oregon State System of Higher Education, University of Texas, Florida State University, and Washington State University. The three series cited, however, are representative.

A claim frequently made in support of academic or faculty status for professional librarians is that librarians are teachers, formally or informally. A report prepared by the City University of New York Libraries Staff Association analyzed this claim in a document entitled "Librarians are Teachers." The report concluded, in summary:

The instruction performed by librarians of the City Colleges is both classroom teaching and extra-classroom teaching. For convenience this activity may be grouped into the following categories: (1) lectures on the use of the library and library research tools, given to students of all levels in visits to classrooms; (2) lecture-demonstrations to particular groups in the library, at the request of colleagues on the faculty; (3) the preparation of teaching aids, supplementary to textbooks—such as annotated reading lists and guides to particular kinds of materials in the library; (4) the preparation of visual aids, supplementary to classroom lecture—such as films, tape recordings and displays; (5) individual conferences with advanced students on their problems with term papers, honors papers, and theses; (6) education of prospective librarians; (7) participation in teaching programs, such as general studies, adult education, in addition to regular professional work.

Professional librarians in other college and university libraries are of course performing similar teaching functions. The ALA Board on Personnel Administration's Descriptive List of Professional and Nonprofessional Duties in Libraries, previously referred to, describes professional and nonprofessional duties under the following main headings:

- Administration
- Personnel Management
- Self-Development of Staff
- Public Relations
- Selection of Material
- Acquisition of Material
- Cataloging and Classification
- Mechanical Preparation of Material
- Registration and Circulation
- Reference Work
- Assistance to Readers
- Physical Upkeep of Material
- Care of Shelves and Files

Each category is shown to have both professional and nonprofessional aspects, with the professional perhaps predominating in some and the clerical in others. The list is presumably applicable to all types of libraries, and there is no attempt to separate duties peculiar to
a university library, for example, from the activities in public, school, or college libraries. There would be some value, perhaps, in trying to pull out of the general list those to be found only, or mainly, in university libraries and to add items which may have developed more recently or were overlooked by the ALA committee sixteen years ago. The differences may not be substantial enough to justify the time and effort involved in developing a more specialized list, however, in view of the fact that professional work in all major types of libraries everywhere exhibits the same general characteristics.

For example, and again for purposes of comparison, the detailed position classification standards developed by the United States Civil Service Commission characterize the recognized grades or classes of professional librarians in federal government service as follows:

**Librarian GS-5**: These classes include positions of (1) librarians receiving training for positions at higher grade levels; and (2) librarians performing assignments of limited difficulty and responsibility.

**Librarian GS-7**: These classes include positions the duties of which are to perform work of moderate difficulty or limited scope in general library work, library administration, or a special functional or subject-matter area.

**Librarian GS-9**: These classes include positions of (1) librarians in charge of libraries having a limited special subject collection; (2) librarians in charge of libraries having a range of functions which may include extension service; (3) librarians in charge of administrative units for special types of services or functions, including the performance of library work that is complex and difficult; and (4) librarians performing complex and difficult work involving acquisitions, cataloging, reference, or other library functions.

**Librarian GS-11**: These classes include positions of (1) librarians in charge of libraries that are separate administrative units and have a range of services and functions, which may include extension service; (2) librarians in charge of administrative subdivisions of a library where the functions and services are such as to require a substantial amount of work of the GS-9 level of difficulty and complexity; (3) librarians performing broad assignments for staff development and administration within an area of a library system; or (4) librarians performing expert work involving acquisitions, cataloging, reference, or other library function.

**Librarian GS-12**: These classes include positions of librarians having (1) overall supervision for an extensive library or group of libraries; (2) responsibility for directing a library program within an area such as an Army or regional area, with responsibility for integrating the program with that of the parent organization; or (3) nonsupervisory assignments of exceptional difficulty and complexity.

**Librarian GS-13**: These classes include positions having (1) overall supervision for an extensive library or group of libraries containing general material as well as specialized technical or scientific collections; and (2) responsibility for coordinating an extensive library system containing general material and technical or scientific material.

**Educational Preparation**

In addition to the nature of duties assigned a major element in the classification of library workers as professional or nonprofessional is educational preparation. This is a cloudy area, seriously in need of established standards. A speci-
Professional Duties in University Libraries / 39

ification frequently stated for a professional appointment at any level is a graduate degree from an ALA accredited library school, yet there are hundreds of nonaccredited programs of library education in American colleges and universities, graduate and undergraduate. What is the status of their alumni? An increasing number of British and other librarians trained abroad are being appointed to positions in the United States. Where do they fit in the professional hierarchy? If an advanced academic degree is a requirement for a position, how is a PhD in library science equated, say, with a doctor's degree in Germanic languages?

Rather than trying to resolve such issues or questions, specifications often fall back on the ambiguous phrase "or equivalent." Clearly, definitions of what is meant by equivalents are needed, if the term professional as applied to librarians is to have any significance. Undoubtedly modern librarianship has become complex, making demands for specialists in a variety of fields for which no one type of educational preparation provides a satisfactory answer. Thus sets of standards should be developed to serve different purposes and recognizing different requirements.

Insofar as the present study is concerned, it must be conceded that there has been little effort to identify explicitly criteria that might be applied to determine whether a given duty is professional or nonprofessional. The determination has been largely in terms of illustrative descriptions of typical positions at the several levels actually in use in three university library systems—California, Illinois, and Michigan—and in the United States Civil Service.

This pragmatic approach has advantages, but a more objective statement would perhaps be of greater usefulness for general application. If we analyze for this purpose the criteria developed by California, Illinois, Michigan, the United States Civil Service Commission, and other organizations concerned with library standards, certain common elements begin to emerge. We find, for example, that a professional position could be defined as one in which mature judgment is required, or in which the incumbent is assigned certain types of administrative authority and responsibility, or is expected to initiate and develop policy, or is expected to possess a thorough acquaintance with the bibliographic apparatus of research libraries, or may need a highly specialized subject or linguistic background, or may be called upon to plan new programs in library technology. These illustrative criteria could be considerably extended to help determine the earmarks of the professional librarian as distinguished from the nonprofessional or subprofessional worker in libraries.

REFERENCES


Appleby, J. W. "Professionalism and Counter Duty," Assistant Librarian, LIII (June 1960), 123-24. Recommends that contacts with public be through professional personnel, even "despised counter duty."

Barcus, T. R. "Incidental Duties of the College Librarian," CRL, VII (January 1946), 14-23. Deals in particular with the librarian's participation in general college and university affairs and duties to his community and profession.


Hart, E. D. and Griffith, W. J. "Professional (Continued on page 69)
The Library Services Branch and Its Services to Libraries

USOE's Library Services Branch administers the Library Services and Construction Act, although not the Higher Education Facilities Act, and sponsors investigation, collects statistics, and renders advisory services of use to libraries. Recent examples of each of these activities are cited, and the provisions of the Higher Education Facilities Act as it pertains to libraries are explained in detail.

The Library Services Branch of the Office of Education is responsible for (1) administering the Library Services and Construction Act, which applies to public libraries, and (2) study, research, statistical, and advisory services on all types of libraries.

The staff of the Library Services Branch represents all fields of librarianship. There are specialists for public libraries, school libraries, special libraries, college and university libraries, and library education.

Among the several Branch services is the identification of major problems and trends in American librarianship. Examples would include (1) the administration and organization of libraries; (2) the resources, services, and expenditures of libraries; (3) the education, certification, and economic status of library personnel; and (4) the social and economic issues which directly affect libraries—such as the antipoverty program.

The Library Services Branch also studies and disseminates information regarding the physical plant and equipment of all types of libraries, and bibliographies in special fields. One of the most recent instances is Nathan Cohen's Library Science Dissertations, 1925-60.

The library education specialist is responsible for collecting and making available nationwide information on professional and semiprofessional programs of education for librarianship. The latest report in this field is the Library Education Directory, 1962-63, which lists library science programs offered throughout the country.

One of the principal responsibilities of the college and university library specialist is the collection, analysis, and preparation for publication and distribution of basic statistical data on academic libraries. The most recent survey, covering 1962/63, was published in January 1964.1

This survey gives basic data on collections, personnel, and expenditures of each of 1,463 college and university libraries, grouped by state. It includes li-

---

brary expenditure per student and the ratio of library expenditures to total institutional expenditures for educational and general purposes, as well as providing high and low salaries of specified full-time staff in almost one thousand institutions as of September 1.

Copies of this report are available without charge. It is sent automatically from the Office of Education to the head librarians of all academic institutions.

A supplement to the January report was compiled by the college and university library specialist and published by the American Library Association; a copy sells for 75¢. This publication contains management data of 419 libraries, or 20 per cent of the total number of academic libraries, i.e. those which returned their completed questionnaires after the deadline of September 30. With the original publication and this supplement, administrators and librarians now have management data for 90 per cent of all college and university libraries. Approximately 70 per cent of libraries reporting gave permission to release information on salary data.

The analytical report of the same data, which will be published in early 1965, will group the information by (1) type of institution and control and by (2) size of enrollment and control. Each category of data is analyzed to show the lowest, 10th percentile, median, mean, 90th percentile, and highest figures. Special emphasis is placed on relating the analytical findings in three critical areas—collections, professional staff, and institutional support—since these can be measured against appropriate ALA standards for academic libraries.

In August 1964, the Branch once more sent out questionnaires. As was the case last year, most state library agencies operated in distributing and collecting the questionnaires. This cooperation is the key part of a national data flow scheme which aims to avoid duplication in the collection of data, share the data that are collected, fill any gaps in the compilation of data, collect comparable and uniform data, and—last—expedite the entire process. The results of such cooperation have been a greater quantity and better quality of returns.

Many library associations are also assisting with these statistical studies. The Association of College and Research Libraries, the Association of Research Libraries, the College and University Library Statistics Committee of LAD-ALA, the Catholic Library Association, the American Theological Library Association, and the American Association of Junior Colleges assisted in various phases of last year’s survey. They have also participated in the planning for this year.

All of these data are designed for the use of all institutions furnishing information.

This statistical information is useful in a variety of ways:

1. It furnishes factual bases for comparing library resources and services with ALA Standards.
2. It furnishes information which assists in budget planning and self-studies.
3. It provides guidelines to accrediting associations and academic library consultants.
4. It yields an accurate picture of academic library progress and development.
5. It provides a reliable source of salary information for various levels of library positions.

The Branch offers consultant service on college and university libraries which is available on request as time and travel funds permit.

Every effort is made to identify authoritative sources of information to meet the requests of inquirers, and,
whenever possible, to provide them with answers or to refer them directly to these sources and agencies. Statistical information can be supplied directly by the Branch either in IBM punched-card form or as a printout. There is no charge for this service.

Here are a few examples: Warren Haas of Columbia University will compare the resources and services of Negro college libraries with all other college libraries on the basis of data furnished by the Branch. The Reverend Charles Banet published in _Catholic Library World_ a detailed article on library statistics of Catholic colleges and universities, and James T. McDonough of St. Joseph's College, Philadelphia, is preparing a comparative study on the libraries in liberal arts colleges based on information secured from the Branch.

None of these services would be available without the cooperation of every college and university. Every year each institution provides the data on statistical questionnaires. The Branch, in return, endeavors to make tabulated data quickly and easily accessible to all institutions.

The Branch has had many questions about the Higher Education Facilities Act of 1963, which includes provision for the construction of libraries. The act will be administered by the Bureau of Higher Education Facilities of the United States Office of Education, not by the Library Services Branch.

**TITLE I**

1. This title establishes a five-year program of grants to institutions of higher education for the construction of academic facilities. The appropriation authorization for each of the first three fiscal years, commencing with the fiscal year ending June 30, 1964, is specified in the statute as two hundred thirty million dollars.

2. The appropriation for any fiscal year is divided into two parts for allotment among the states (including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, and American Samoa):

   a. Twenty-two per cent of the appropriation is allotted on the basis of a state's relative per capita income and number of high school graduates. A state's allotment from this fund can be used only for public community colleges and public technical institutes.

   b. The remaining 78 per cent of the appropriation is allotted as follows: one half on the basis of the relative number of students enrolled in grades 9 through 12 in the state and one half on the basis of the relative number of students enrolled in institutions of higher education in such state. The allotment from this fund is available for grants to institutions of higher education, public and private, in the state (other than public community colleges and public technical institutes).

3. Institutions of higher education other than public community colleges and public technical institutes are eligible for construction grants only if the construction is limited to structures (or portions thereof) especially designed for instruction or research in the natural or physical sciences, mathematics, or modern foreign languages, engineering, or for use as a library; and all institutions of higher education (including public community colleges and public technical institutes) are eligible for a grant for construction only if the particular construction will, either alone or together with other construction to be undertaken within reasonable time, result in an urgently needed substantial expansion of the institution's student enrollment capacity, or in the case of a new institution of higher education, result in creating urgently needed enrollment capacity.

4. A state desiring to participate in
the grant program under this title must designate, as the “state commission,” an existing state agency which is broadly representative of the public and of institutions of higher education (including junior colleges and technical institutes) in that state, or if no such state agency exists, establish such a state agency, and submit to the Office of Education through such commission a state plan for participation under title I.

5. Among the provisions required in a state plan is the setting forth of objective standards and methods, consistent with basic criteria prescribed by the Commissioner of Education, for determining (a) relative priorities of eligible projects for the construction of academic facilities submitted by institutions of higher education in the state and (b) the federal share of the cost of each such project (other than a project for a public community college or public technical institute).

6. While the federal share of a project for an institution of higher education, other than a public community college or a public technical institute, may vary up to a maximum of one-third of the cost, the federal share of a project for a public community college or a public technical institute is fixed by the law at 40 per cent.

**TITLE II**

1. This title establishes a five-year program of construction grants (covering up to 33⅓ per cent of the costs) to assist public and private institutions of higher education to improve existing graduate schools and cooperative graduate centers and to assist in the establishment of graduate schools and cooperative graduate centers of excellence. Appropriation authorizations for the first three years are specified in the statute; i.e., twenty-five million dollars for fiscal year 1964 and sixty million dollars for each of the next two succeeding fiscal years.

2. In approving applications the Commissioner is required to consider the extent to which a particular project will contribute to achieving the objective of this title—which is to increase the supply of highly qualified personnel urgently needed by the community, industry, government research, and teaching—and also the extent to which the grant will aid in attaining a wider geographical distribution of graduate schools and cooperative graduate centers.

3. This title also establishes in the Office of Education an advisory committee on graduate education to advise the Commissioner on the administration of the program, including the action to be taken on applications for grants under this title.

**TITLE III**

1. This title authorizes a five-year program of loans for the construction of academic facilities at institutions of higher education. The appropriation authorized for each of the first three fiscal years commencing with the fiscal year ending June 30, 1964, is specified in the act as one hundred twenty million dollars.

2. The loans will bear an interest rate, determined by the Commissioner, which cannot be less than one-quarter of 1 per cent above the average annual interest rate on all federal obligations. The maximum period for repayment of a loan is fifty years.

3. An institution applying for a loan will have to show that not less than one-fourth of the development cost of the project will be financed from non-federal sources and that it cannot borrow from other sources on equally favorable terms.

**Exclusions**

The following are not considered academic facilities for which grants or loans for construction may be made under the act:

1. Any facility intended primarily for events for which admission is charged to the public.

2. Any gymnasium or other facility specially designed for athletic or recreational activities, other than a course in physical education.

3. Any facility used or to be used for sectarian instruction or religious worship.

4. Any facility used or to be used primarily for any part of the program of a school or department of divinity.

5. Any facility used or to be used by a school of medicine, dentistry, osteopathy, pharmacy, optometry, podiatry, nursing, or public health.

Appropriations to implement the Act for fiscal year 1965 have been requested by the Administration. In April 1964 the House approved the following amounts:

<table>
<thead>
<tr>
<th>Title</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title I</td>
<td>$230,000,000</td>
</tr>
<tr>
<td>Title II</td>
<td>60,000,000</td>
</tr>
<tr>
<td>Title III</td>
<td>169,250,000</td>
</tr>
</tbody>
</table>

This is just a beginning. In his speech before the First General Session of the American Library Association conference in St. Louis, Mr. Keppel remarked that: "The Higher Education Facilities Act, with its help to academic library construction, comes none too soon . . . but the unfinished job—the hardest job—still remains. It is to build adequate collections of books and other materials needed by college students and faculty for their study and research. This is both an immediate and a long term, continuing task. A library without books, of course, is about as useful to learning as an empty warehouse."

AUTOMATED OPERATIONS IN A UNIVERSITY LIBRARY

(Continued from page 29)

and dealers' prices and discounts, and it can compare the time required by various dealers to fill orders. It can compare the items on an invoice with the acquisitions and serials units' receipt records stored in the computer catalog to determine whether or not the items on the invoice have been received. Supply inventory control with automatic ordering is an obvious routine for such a system, as is equipment inventory control.

LIBRARY OFFICE ROUTINES

Among the uses for computers in library office routines that readily come to mind is a KWIC index of library correspondence, minutes of meetings, library reports, memoranda, and other papers that might inform the left hand about the doings of the other hands.

Needless to point out would be the value of lists of personnel and their assignments, telephone numbers, etc., updated whenever changes occur.

There is also no reason why the library's important correspondence, minutes, reports, etc., could not be stored in microform and tied into the technical reports retrieval system previously described, with or without the KWIC index.

If the library is responsible for its own personnel records, there could be many possibilities for further useful data collection and evaluation. Beyond the usual personnel data maintained by any organization, information can be listed as to special training or talents, foreign languages studied, travel experiences, hobbies or any other data that may be useful to reference librarians looking for answers to questions.

There are, of course, other ways in which automation can be of service to librarians and their patrons. Each librarian, as he becomes familiar with the advantages and limitations of computers and as he learns the theories and techniques of data processing, will find his own uses for this new medium.
Both the new quarters of the NLM and the legal basis upon which it operates facilitate interlibrary lending. NLM’s liberal lending policies were formulated in 1957, and use of the service has grown very rapidly since that time. In order to speed up the furnishing of photocopies in lieu of loans, cameras are now moved throughout the stack rather than the materials brought to a filming center. Through these activities, NLM is attempting to fulfill the role of “a national backstop to local library resources” in medical and related fields.

The National Library of Medicine is known in the United States and throughout the world as the institution preeminently concerned with the acquisition, organization, storage, retrieval, and dissemination of the published literature of the medical sciences.

The administrative history of the library is inscribed on the verso of an imposing, dark green granite wall at the entrance of the new building. It reads as follows:

“Founded in 1836 as the Library of the Surgeon General’s Office, United States Army; developed as a national resource under the leadership of John Shaw Billings, Librarian from 1865 to 1895; named Army Medical Library in 1922 and Armed Forces Medical Library in 1952; made a part of the Public Health Service of the Department of Health, Education, and Welfare in 1956; established on this site in 1961; the one hundred and twenty-fifth anniversary of its founding.”

In April of 1962 the library moved into its new home at the southeastern corner of the Bethesda, Maryland, campus of the National Institutes of Health. During two extremely busy years of suburban bibliometamorphosis the library has sought to strengthen and expand its various services. The services of the library range from conventional reference and bibliographic work to the new computer based MEDLARS program, which will not only automate the publication of Index Medicus but will provide customized units of bibliographic information on recurring and demand bases. This paper, however, will be limited to a detailed review of the interlibrary loan program, since college libraries use this service more than any other offered by the library.
LEGISLATIVE AUTHORITY

Under Section 372 ("Functions of the Library") of Public Law 941 (84th Congress), the National Library of Medicine Act, the following legal base for the library's interlibrary loan program is provided:

"Sec. 372. (a) The Surgeon General, through the Library . . . shall . . . make available, through loans, photographic or other copying procedures or otherwise, such materials in the library as he deems appropriate. . . ."

On August 3, 1956, the President signed into law the National Library of Medicine Act. Following this action the library began an internal review of various activities, including those of the interlibrary loan and photoduplication services.

LOAN POLICY

In September 1957 the National Library of Medicine initiated a new loan policy.1 This new program included four important features:

1. The National Library of Medicine lent material only to other libraries. Individuals could use library materials on the premises, but could neither remove them from the library nor borrow them in any form by direct request. The operation thereby became an interlibrary loan service in name and in fact.

2. Although all printed literature in the library's collection was available for loan, the decision to lend depended on a number of factors. It was felt that NLM should provide only supplementary service to local and regional libraries. Ordinary, current, in-trade publications considered to be of widespread accessibility were not subject to loan in any form.

3. The NLM reserved the right to determine whether the loan was made in the original or as a photoduplicate (microfilm or photoprint). This determination was based on the photocopying costs, copyright restrictions, rarity and physical condition of the item requested, shipping costs, and any other pertinent factors.

4. Photoduplicates sent instead of original material were supplied free of charge to requesting libraries. Such photocopy could be retained permanently by the borrowing library.

It was felt that the introduction of an interlibrary loan program in accordance with these new policies would not only be more effective but would also be less expensive to maintain and enlarge. Experience to date has confirmed these assumptions. Accordingly, the basic features of the loan policy of 1957 remain in effect at this time (see appendix).

INTERNAL OPERATIONS

The processing routines of the interlibrary loan operation have been streamlined. The microforms and photostats provided prior to 1957 have been largely replaced by Xerox photoprints. With the move to a new building in April 1962, came the opportunity to introduce a unique photoloan procedure. This operation had to be geared to handle efficiently an average of seven hundred loans per day with midweek peaks as high as one thousand loans per day.

Under the old system books had been carried from the shelves to a centralized group of microfilm cameras. This involved temporary loss of material while it was in the pipeline and required multiple sorting and reshelving operations. Under the new plan roving cameras were designed for use in the stack aisles. Electric feedrails were installed in the aisle ceiling, permitting five mobile cameras to negotiate the aisles like trol-

---

ley cars. Books are now brought to specially designated shelves at the end of each range. They are then photographed, returned to the special shelf, and finally replaced at their proper position in the range. Exposed microfilm is developed overnight and processed the next day by a Copyflo printer capable of replicating thirty-two pages of text per minute. These new procedures have introduced greater efficiency and economy into the loan operation, permitting an orderly adjustment of the service to rapidly expanding processing loads.

COLLEGE AND UNIVERSITY LOANS

A recent survey of the NLM interlibrary loan operation included an analysis of various types of borrowing libraries. The general, nonmedical libraries of colleges and universities (including departmental libraries as well as libraries serving nonmedical graduate schools) accounted for only 4.12 per cent of total loans in the United States and 6.75 per cent of all loans to foreign countries. Application of these percentages to the fiscal year 1963 photocopy interlibrary loan rates yields a college and university library rate of approximately six thousand such loans.

Though the bulk figure is more impressive than the percentage, these statistics suggest that the demands of college and university libraries for NLM loan service are reasonable. It is possible that the biomedical loan requirements of colleges are being met by local and regional resources, such as those of medical school, medical society, and public libraries. Or perhaps some college librarians are not yet fully aware of NLM services or do not realize that these services are extended to libraries other than medical. Medicine is a broad field and the collection is an inclusive one, with materials on such subjects as—and this is only a sampling—psychology, anthropology, artistic anatomy, and sanitary engineering. So it may be that this paper will open for some a so-far-unrealized source for legitimate loan activity.

THE NLM AS A NATIONAL BACKSTOP

As Windsor lecturer for 1963 at the University of Illinois, Verner W. Clapp dealt with the theme, "The Future of the Research Library." He characterized the National Library of Medicine as "the most conspicuous example of a national backstop to local library resources in a specific subject." The three essential elements of a national member of the research library system are considered to be "comprehensive acquisition within a conspicuous subject field; publication of the principal current bibliography of that field; and the obligation to backstop local resources in that field." Mr. Clapp considers that the NLM is an outstanding example of such a library.

STATISTICS

A review of the interlibrary loan statistics for fiscal year 1963 provides quantitative confirmation of the magnitude of the NLM backstopping operation. Requests for interlibrary loans totaled one hundred fifty-eight thousand, an increase of 22.5 per cent over the previous year. One hundred thirty-five thousand or 86 per cent of these requests were filled by either photocopy (one hundred twenty-eight thousand) or original materials (sixty-five hundred). In the case of photocopy orders alone this amounted to filling such requests at a rate of over one per minute of every working day throughout the year. Through this mechanism, some two thousand libraries around the world received approximately two million three hundred thousand

---


pages of photocopy. One in eight of these photoloans was sent to a foreign library to whom the NLM represents a primary international resource.

A NATIONAL PROBLEM
In spite of this impressive evidence of the sharing efforts of NLM, there must be equally strong efforts to develop programs of local self-sufficiency. Recognition that the NLM collections, consisting mainly of single original copies, cannot meet the multiple needs of reader service, interlibrary loan, and resource development on a national and international basis is becoming painfully apparent. In a recent editorial4 the editor of the Bulletin of the Medical Library Association stated, "With fine medical research collections in almost every region of this country, it seems ludicrous that medical libraries of every size in every part of the nation should think of borrowing any journal directly from the National Library of Medicine instead of seeking it first within their own areas. . . . Let us use the services of our NLM correctly and in perspective, so as to assure everyone better service in obtaining unique material or receiving reference aid that cannot be supplied locally."

Planning for appropriate measures of regional and local self-sufficiency is the next task to which the National Library of Medicine and the medical library profession must address themselves. Provision of medical library service adequate to meet the needs of burgeoning medical investigation—and adequate to the requirements of related disciplines which come through nonmedical libraries—requires the reinforcement of the national network of library services through which local resources are supplemented by regional libraries. To such a network, the National Library of Medicine can truly, to use Mr. Clapp's term, act as a "national backstop."

MUSIC MANUSCRIPT
(Continued from page 16)

For the Burgundians: Bodl. Li. MS Can. Misc. 213, "Canonic."57

For late fourteenth and early fifteenth-century English sacred music: Catholic College of St. Edmund, Old Hall, England, "Old Hall MS."

The most important single source of fifteenth-century music are the Trent Codices from the library at Trent. They contain more than sixteen hundred pieces, dated between ca. 1420 and ca. 1480.


by about seventy-five British and continental composers.59

Contemporary Literature on Music. The chief writings are the "Ars Nova" of Vitry,60 the pro-Vitry "Ars Novae Musicae" and other works by Jean de Muris (d. ca. 1351);61 the "Speculum Musicae" by Jacob of Liège, a virtual encyclopedia of medieval musical learning, ending with an attack on the new music of Vitry and Muris and a defense (Continued on page 60)


61 Treatises printed in Gerbert, op. cit., III, 189-318; partial translation into English in Strunk, op. cit., pp.172-79; discussion by H. Besseler in Archiv für Musikwissenschaft, VIII (1926), 207-09, centering on text collations.
A Librarian's Participation in the Conference on the African University and National Educational Development

The author reports upon his role in a recent conference on African higher education held at Lake Mohonk, New York. He operated a reference library there and describes the uses that were made of it by the delegations. He participated in discussions, served as reporter for selected sessions, and encouraged the adoption by the conference of a strong statement in support of libraries which became "the only conclusive recommendation formally accepted by" it.

There are comments upon the implications of future participation of librarians in such conferences.

When Karl W. Bigelow, who serves in the dual capacity of executive officer of the Institute for Education in Africa at Teachers College (Columbia University) and executive officer of the Afro-Anglo-American Program in Teacher Education, announced that he was responsible for organizing an international conference to explore the problems of teacher education primarily in the English-speaking sections of Africa, the author called to his attention the merit of considering the role of the library in the educational structure. In educational planning, it was pointed out, the library all too frequently is treated as a peripheral appendage to the educational process. Educators thereby fail to make use of an important tool which could help them achieve their own goals. Furthermore, of course, the library is central to the work of universities and colleges. In due course, the author received a formal invitation to attend the Conference on the African University and National Educational Development at Lake Mohonk, New York, September 8-18, sponsored by the organizations with which Professor Bigelow is associated.

The conference brought together personalities representing academic institutions, foundations, and governmental agencies from the United States, Great Britain, and thirteen countries of Africa in which English is used as a medium of instruction. The delegations examined the problems of education by listening to panel discussions and to papers read by experts and by exchanging experience and comment. There was no intent to arrive at recommendations and decisions. It was the purpose of the conference to reproduce papers and recorded discussions in a conference document which

Dr. Forman is Professor of Education and Librarian at Teachers College, Columbia University.
would form the basis for a book and, it is hoped, to serve the interests and informational needs of those concerned with this most important subject. The conference organizers also felt that the meeting of delegates, the establishment of personal contacts, and the exchange of information and opinion would be of sufficient value to merit the energies and resources expended to make the meeting possible. The main American educational group present represented Teachers College; the main British representation came from the University of London; the African delegation represented people from universities, institutes of education, teacher training institutions, and ministries of education.

Teachers College library supported the conference by establishing a small reference library at Lake Mohonk. The reference library project was begun by compiling a bibliographical list. This was undertaken by Wayne Gossage. Titles were selected with an eye toward bringing together a collection for exhibit, reference, and use by the conference participants. The list was fairly representative of the Teachers College collection of books and periodical materials on African higher education. An atlas, dictionaries, biographical dictionaries, encyclopedias, and other general references were included. The bibliography served as a guide to the selection of materials for the conference library, and it was published as part of the conference document.

The library materials were arranged in an attractive room in a fairly central position at the hotel, with hand-lettered signs to describe their purpose. The attention of the conference delegates was called to the collection by an information bulletin. The library attendant designated to look after the collection was a Teachers College library page, Master Philip Forman, aged fourteen and one-half. He, however, was called away for clerical duties at Lake Mohonk, and the collection was left largely unattended. Nevertheless, the borrowers' cards show that active use was made of the collection. The borrowed items were easily categorized as: (1) directly related to subjects under discussion; (2) publications which were mentioned at conference discussion; or (3) publications associated with personalities at the conference. Some patrons reported that they could not find the books, articles, or references for which they were looking.

The library served other useful purposes. One delegate from Nigeria reported that he examined the collection to identify categories of materials important for the library of the institution he represented and that examination of the collection would enable him to make recommendations to his librarian. Some of the delegates deposited relevant documents in the library for use by delegates from other countries. After the close of the conference these documents were added to the Teachers College library.

There were many other experiences at Lake Mohonk which had bearing on librarianship. For example, useful personal relationships were established with representatives of a variety of African nations and institutions. A chief education officer from one African country offered to supply Teachers College library with full documentation dealing with the development of education in his country.

Of particular importance were the personal relationships established with fellow faculty members present. Surely as an outcome of living together, the formal communication and telephone calls of the past will take on a new warmth and a new meaning.

The presence of a librarian also evoked many questions as to libraries. One was the present status of computerization and information retrieval; another dealt with
plans for setting up bookmobiles; a third dealt with the philosophy behind open-shelf collections and the percentage of allowable losses. It must be kept in mind that a librarian was not a conference delegate in any special capacity but simply as one among equals to bring to bear his experience and training on the subjects under discussion. He was also involved in the administrative mechanics of the conference, as were others, as a rapporteur; his duties required that he attend designated group meetings, record the discussions, and submit them for typing and eventual incorporation into the conference document.

At the conference the papers read, and particularly the varied experiences represented by the conference delegates, led to a consideration of many facets of the central problem of the conference. Papers were read dealing with preservice and in-service education of teachers, the advanced training of educational specialists, the expansion of educational research and experimentation, and cooperative procedures designed to facilitate advance along these lines. But no matter what the subject under discussion, the delegates spoke—again and again—of the pressing need for the dissemination of research, the need for sharing ideas and information. This concept was an important one in a major paper read by John Lewis, professor of education and head of the department of education in tropical areas at the University of London. Professor Lewis opened his discussion of “Educational Research and National Development” with the statement that “... provision must be made for the immediate and continuing application of the research findings to the development of education. ...” A. G. Joselin, head of the department of education at Ahmadu Bello University in Northern Nigeria, touched on the same theme when he dealt with the need for university institutes of education “to develop and main-
tain a professional library service available to all teachers in the institute’s area.” Other conference participants also spoke of the pressing need for the publication and distribution of reports, abstracts, and bibliographical guides. The question of dissemination of research findings, although not initially treated as a major subject of discussion for the conference, became central in the deliberation of many of the discussion groups. One of the groups recorded the proposal “that the conference go on record as recommending that there be established various types of libraries, information centers, educational materials centers, documentation centers or clearing houses—national, regional or international—with archival and distributive functions, dealing with education in Africa. Such institutions should minimize duplication of efforts and make known research projects and their findings, collect and distribute the reports of governments and other interested agencies as well as all types of bibliographical information.” This was incorporated in the group report and at the final session was presented for consideration of the entire delegation. This proposal became the only conclusive recommendation formally accepted by the conference.

Experience at the conference, the deliberations of the delegates, and the resultant conference document strongly support several implications for librarianship as well as for organizers of future similarly structured conferences.

1. A librarian should have been involved in conference planning.
2. A librarian capable of providing information services should have been available during the hours when the conference library was open. Such a service might have contributed to an even higher level of discussion.
3. The role of the library in national ed-

(Continued on page 69)
**Selected Reference Books of 1963-1964**

**INTRODUCTION**

This article continues the semi-annual series originally edited by Constance M. Winchell. Though it appears under a byline, the list is actually a project of the reference department of the Columbia University libraries, and notes are signed with the initials of individual staff members.

Since the purpose of the list is to present a selection of recent scholarly and foreign works of interest to reference workers in university libraries, it does not pretend to be either well balanced or comprehensive. Code numbers (such as A11, 1A26, 2S22) have been used to refer to titles in the Guide and its supplements.

**BIBLIOGRAPHY**


"To provide librarians, booksellers, and other book purchasers, at regular intervals throughout the year with the most current information on forthcoming books," Bowker now publishes this index which expands and updates the latest quarterly PW announcement number. Titles of books published since the previous announcement number appeared are deleted (except where major changes have occurred) and fuller information for books to be released in the coming months is listed. There are two separate listings, one by author, the other by title. Each gives author, title, publisher, publication date and price. To date, "at regular intervals" appears to mean quarterly.—R.K.

**LIBRARY CATALOG**


Contents: v.1-8, Authors; v.9-13, Titles; v.14-21, Subjects; v.22, Manuscripts and Microfilms; v.23-24, Chinese Titles; v.25-26, Chinese Authors; v.27, Chinese Subjects; v.28, Japanese.

As an index to one of the great collections of materials for Oriental and African studies, this catalog should be among the most useful of the many recent reproductions of card catalogs in book form. The library contains over a quarter-million items in the fields of language and literature, history, religion, law, art, anthropology and ethnology, "and a start has been made on building up collections in the social sciences." (Pref.)

The main catalog is in three sections (v.1-21 as published): authors, titles, and subjects. The author section includes all main entries (except those in Chinese and Japanese), with some analytics for series, periodical articles, and parts of books. The title section merely provides references to the author part. In the subject section cards are grouped chiefly by region, country or language, appropriately subdivided; these categories in turn are grouped by larger region as follows: v.14, General; v.15, Africa; v.16-17, Middle East; v.18-19, South Asia; v.20, Southeast Asia and Pacific Islands; v.21, Far East. Since there are few cross references, a list of subject headings or an index to the larger subject categories would have been helpful. In the language sections, for example, material is grouped by language family, subdivided by
individual language, but with no cross reference from the individual name to the parent group. Libraries not interested in the complete catalog may purchase separately the volume or volumes covering specific subject sections.—E.S.

INTERNATIONAL MEETINGS


First of a series, this volume lists published official reports and working papers, or refers to summary reports in periodicals, of conferences, congresses, symposia, round tables, etc., of international governmental and nongovernmental organizations (including the UN) and international meetings organized by national groups. Organizations are arranged by date of meeting in the body of the work, followed by an author-subject index. Among the information given is formal title (usually in the language of the published volume), paging, form of publication, UDC number and, sometimes, brief notes on contents and number of participants. The bibliography supplements the monthly Bibliographical Current List of Papers, Reports and Proceedings of International Meetings (1961- ); were it to be issued more promptly, it would be an even more useful aid.—E.J.R.

PERIODICALS


To appear thrice yearly, this is the first issue of "a bibliographic review of (1) articles on the history of the United States and Canada published throughout the world, and (2) articles dealing with current American life and times [on] all phases of American studies." (Introd.) This issue classifies 1059 articles on North America in general and the United States appearing in periodicals and serials of 1963, primarily in the humanities and social sciences. Each article is cited fully, with inclusive pagination and an abstract. Articles on Canada will appear in the second issue (December); a list of periodicals surveyed and an annual index in the third (March). Subscribers to America may utilize its periodicals information service, and obtain from it, at cost, reprints or photocopies. The quality of its advisory and editorial boards, its format and scope, are such as to make America a promising addition to reference collections. —E.J.R.


This annotated bibliography of radical periodicals (defined by the compiler as those periodicals of an anarchist, communist, or socialist nature) includes periodicals in the English language published in the United States. With some exceptions, daily newspapers, purely trade union publications, local publications, literary magazines, and periodicals appealing to special groups are excluded. This is the first issue of the book. The book contains a list and "genealogy" of radical parties and groups.—A.C.

RELIGION


Despite the recent appearance of several English language Bible dictionaries, these two foreign titles merit mention here. The Reicke and Rost work is the more ambitious of the two and, as the title suggests, emphasis is on understanding Biblical and related terms, including personal and place names, in their historical context and in the light of recent scholarship and archaeological research. It is designed to fill the gap between highly specialized works for theologians and the very general works. Articles are signed, many are of considerable length,
and nearly all carry bibliographical references. Numerous maps, plates, and line drawings illuminate the text. Volumes 1-2 cover through the letter "O"; a third will follow.

The Dheilly volume is a relatively modest work with entries ranging from single-line statements to articles of several pages, and dealing with people and institutions, the books of the Bible, biblical themes, and the history and geography of biblical places. Findings of archaeological research, development of theological concepts, use of specific texts in the Catholic liturgy, and applications to art and literature are noted when pertinent.—E.S.

**SOCIAL SCIENCES**


Although the foreword states that the work "contains no information of pure propaganda nature," this first yearbook is primarily a compilation of reprints from Chinese newspapers and journals—editorials, speeches, official statements, etc.—on a variety of current affairs as they existed in 1961 and early 1962. The first section, "Major meetings and statements," is followed by such categories as political, military, people's communes, economic, cultural and diplomatic relations, the last subdivided by country. Included as a part of the section on political affairs is an eighty-page directory of national and party officials. There is no index.—J.N.W.


This first volume in Unesco's projected series of unilingual dictionaries in the social sciences was prepared by a joint committee of British and United States scholars. Its aim is "to define the key concepts most widely employed in the various social science disciplines . . . in a fuller and more comprehensive treatment than has proved possible in other works styled as dictionaries." (Foreword.) It defines and describes in the form of incisive essays some two thousand terms and concepts in the fields of anthropology, economics, political science, social psychology and sociology. No one field predominates although social psychology would appear to be given stronger emphasis than in most previous works of this nature.

While the essays, written and signed by internationally recognized experts, are more extensive than the mere defining of terms, the material is selective. Unduly technical terms or ones with only minor or local interest are omitted. Also excluded are terms about which there is little dispute or which would appear in a standard dictionary. Common usages are given as well as the most accepted scientific usages. Illustrations are made by quotations from the standard literature in the fields, thus providing useful bibliographic references.—C.S.


Designed primarily for graduate library school students, this work should be useful as well to many librarians and research workers in a wide range of the social sciences. Eight principal chapters treat, respectively, social science in general, history, economics and business, sociology, anthropology, psychology, education, and political science. Each consists of two main sections: first, a bibliographic essay written by a specialist to explain the history and the methodology of the discipline, and to cite, as applicable, a substantial number of pertinent, significant monographs. The second part is devoted to annotated lists of reference sources, grouped by form, type, or specialized aspect, e.g., guides to the literature, abstracts, current bibliographies, retrospective bibliographies, encyclopedias, handbooks, etc. Periodical sources are generously cited as well as monographs and multivolume sets. The index includes authors and titles, but not subjects.—J.N.W.

**DICTIONARIES**

Erdsieck, Gerhard and Dietl, Clara-Erika. *Wörterbuch für Recht, Wirtschaft und Politik, mit erläuternden und rechtswis-
Selected Reference Books of 1963-1964 / 55


Recognizing the differences between continental and Anglo-American legal systems and their respective historical backgrounds and development, the editors offer this aid to interpreters and translators. Legal, economic, and political terms are included, with "particular attention . . . to commerce and industry, banking, insurance and shipping, stock exchange practice, taxation, advertising, and public opinion research." (Intro.) For most entries the English term is followed by the equivalent German term or terms, with illustrations of idiomatic use when appropriate. Explanatory notes are provided in cases where the British or American term differs in meaning from the closest German equivalent; differences in British and American usage are also indicated.—E.S.


This is the first volume of a wholly new dictionary, intended as "a German counterpart to Harrap's Standard French and English Dictionary."

Science


With a view to providing "American scientists with (1) background knowledge of the administration of science and technology in the USSR and (2) an acquaintance with selected Soviet institutions and . . . important members of their staffs" (Intro.), the directory lists for each institution the name (translated and in transliteration), address, director, administrative affiliation, selected staff members, and brief description of the institution. The list is heavily oriented toward the physical sciences, omission being made of biological and medical institutions. Information is relatively current, only literature published since 1957 being used as sources. There are indexes of transliterated titles of institutes, subjects, and staff members, and a keyword index of titles.—C.S.


This list, which "identifies and describes briefly the editorial requirements" of 320 of the major technical periodicals which accept and publish English language articles, is addressed to "scientific and technical personnel, students, writers, and librarians." (Intro.) Titles are arranged alphabetically within large classes, subdivided where necessary. In addition to long sections for pure and applied sciences, there is a short list of social science journals included. The work is comparable to the Byrd and Goldsmith Publication Guide (Guide 4R3) and the Gerstenberger and Hendrick Directory of Periodicals (Guide 4R4) for literary and linguistic scholars.—R.K.

In view of the relatively limited period of coverage, it is somewhat staggering to find more than twenty-eight hundred items in this bibliography of "unilingual defining glossaries, dictionaries, encyclopedias and bi- or multilingual dictionaries in the physical sciences and technology." (Intro.) Since usefulness of the work cited to the English speaking scientific community was the principal selection criterion, a majority of the works have English as one of the languages employed, though nearly fifty foreign languages are represented. The bibliography is arranged by language within 49 subject classes; author, language and detailed subject indexes are provided.—E.S.

ANTHROPOLOGY


So comprehensive a work as this one should be especially welcome since there is no other recent bibliography of the Australian aborigines. Working in Australian, European, and American libraries, the compiler has assembled 10,283 entries, almost exclusively books and periodical articles. A few government documents, newspaper articles and book reviews have been included, but these chiefly for writings of outstanding anthropologists. There is a separate alphabetical listing of the aboriginal tribes as well as a map giving their locations, and the somewhat unconventional index provides a good subject approach. The work does for Australian ethnology what Murdock's Ethnographic Bibliography of North America (Guide N312) does for the American Indian.—C.S.

MUSIC


Seven volumes are planned in this series which aims to provide an annotated list of the "significant" popular songs of the twentieth century. Included are "those musical works which (1) achieved a substantial degree of popular acceptance, (2) were exposed to the public in especially notable circumstances, or (3) were accepted and given important performances by influential dramatic artists." (Pref.) This first volume lists songs of the fifties, arranged by year, then alphabetically by song title. Information given includes lyricist, composer, publisher, notes about best selling records, title of film or stage show in which a song was introduced, and performers associated with it. An index of titles provides references to the appropriate year; cross references are made from some, but not all, variant titles. Other volumes will deal with earlier decades of this century.—E.S.

LITERATURE


Like the well-known Guide bleu for France, this work is arranged in geographical sections, beginning with Paris, which in turn are broken down into itineraries. This correspondence permits complementary use of the two guides, although the present book's chief value may well be for armchair travelers and for reference work. There are, for example, interesting literary maps such as those showing Parisian salons in the eighteenth century or LaFontaine's trip to Limousin in 1663. All kinds of literary associations are given, whether with an author's life or with his work. The scope is not limited to French literature and the concept of "author" is broadly interpreted, although no living persons are included. Not only writers of belles-lettres and philosophy are represented, but also artists, politicians, and scientists whose work was important to literature. The section on Paris is necessarily sketchy since the literary associations here alone would fill many books. There are three indexes: the streets of...
Paris, other place names, and authors' names. The book received official sponsorship from several sources, including the Service des Lettres of the Ministère des Affaires Culturelles. This is a useful and pleasant guide which may well serve as a model for other countries.—S.T.


Students and scholars specializing in Victorian literature are particularly fortunate in having such good bibliographic coverage for their period. This newest aid is a companion to Faverty's *Victorian Poets* (Supplement 3R52). Following the plan of that volume (a general section followed by individual chapters on the principal novelists, each done by an outstanding scholar) and, like it, sponsored by the Victorian Literature Group of the Modern Language Association, the work provides a readable survey of research and a critical evaluation of writings in the field. Gaps in scholarship and areas for further research are frequently pointed out. Emphasis is on publications of the last quarter-century, with coverage through 1962 plus some 1963 items.—E.S.

**BIOGRAPHY**


Contents: v.1, Introductory survey, constituencies, appendices; v.2, Members, A-J; v.3, Members, K-Y.

The long planned, long awaited History of Parliament formally commences with these monumental volumes, products of great scholarship and industry. The "basic elements," the biographical sketches in v.2-3 (1300p.), list every member returned at the general election of 1754 and subsequent elections to 1790; they range from a few lines to eight or ten pages. It must be remembered that the plan of the History is such that each biography treats only of the part of the member's career which falls between 1754-1790, and extra-House activities are only touched on. Earlier or later sections of the History will deal with other periods when a member's term was of longer duration. The "Introductory Survey" in v.1 is a mine of information on political, social, and constitutional developments, discussing the character and development of the House and individual constituencies, groupings of members, elections, growth of party, and so on. Constituencies are then alphabetically listed and discussed, with each member and date of service noted. Manuscript sources are often indicated. Appendices give some tabular information. This is a very specialized but very valuable work.—E.J.R.


Biographies of leading Soviet scientists are here arranged alphabetically and range in length from a few lines to several pages. In addition to date of birth, institution of higher education, date of graduation, dates and places of employment, most biographies give some details concerning the field of research, any inventions, theories or designs, bibliographical references, biographical references, office and residential addresses, and even telephone numbers. Information for the biographies was obtained from sources in Soviet literature and individual scientists were given an opportunity (which many took) to correct their biographies.—A.C.

**ATLAS**


Second in a projected series of regional atlases (the first was *Atlas of the Arab World and Middle East; Supplement 4V164*), this work offers attractive colored maps showing various aspects of the following characteristics: political divisions, climate, vegetation, population, mineral resources, and communications. There are also "town plan" maps for major cities, and historical maps of the entire area for different periods appear on the endpapers.
Southeast Asia as a whole is covered first, followed by more detailed maps for each country in the area: Philippines, Indonesia, Singapore, Malaya, Thailand, Burma, with North and South Vietnam, Cambodia, and Laos grouped under "Indochina." The main section of maps is followed by a brief illustrated history and description of the area. An index to political and geographic place names is provided.—A.C.

**HISTORY**


Combining history and bibliography, Beers "presents an historical account of the acquisition, preservation, and publication . . . of the original records created by French and British officials in the Old Northwest" (the area south of the Great Lakes from western New York to the Dakotas). The general history and governmental organization of the area under the two regimes in the eighteenth century is outlined first, followed by a description of the administrative, legal, notarial, land, and ecclesiastical records, and how and where they have been preserved in manuscript collections and public archives. The concluding section is an extensive list of primary and secondary bibliographical sources.

—S.R.


Some forty-nine hundred items on the general and physical characteristics, history, archaeology, social and economic aspects of the area which is now the state of Mali are here listed in subject arrangement. Both books and periodical articles are included, but a certain selectivity was exercised. Many entries are annotated, and there is an author-subject index. Joucla's *Bibliographie de l'Afrique Occidentale Française* (Guide V132) provided the basis for listings to 1937, care being taken to correct errors and omissions from that volume. The year 1960, the date of total independence for Mali, was chosen as the cutoff date.—E.S.


Disclaiming completeness, the editor offers this listing of some fifteen hundred items as the first substantial bibliography on the Nazi concentration camp. Books and periodical articles in many languages are arranged in four main sections with appropriate subdivisions: (1) general aspects of the camps (with subdivisions for atrocities, Jewish persecution, medical aspects, etc.), (2) the principal concentration camps, (3) "secondary" or less well known camps, and (4) writings on camps not identified by name, and on the camps of the early years 1933-34. There is an author index.—E.S.


Following the general format of the 1910 *Diccionario de geografía, historia y biografías Mexicanas*, Porrúa now presents a modern encyclopedia of Mexico. The biographies are generally limited to men no longer living or who are retired from active public life, and include a list of authors' works. The articles are quite brief (100-150 words) except in the case of major historical figures, events, and geographical areas. An especially valuable feature is the inclusion of entries for Mexican periodicals and organizations, giving names connected with each and a brief historical sketch. Ten colored maps illustrate various resources and communications systems.—S.R.


There are almost too many books about Paris; fortunately, this one is of more than usual interest. Although it contains no bibliographies, it does present a large amount of material in an easily usable form. The book consists of detailed articles on the physical and social institutions of Paris,
from the beginning to present times, arranged alphabetically. Articles are entertainingly written by identified specialists, including several museum curators. The historical viewpoint is stressed, but not at the expense of amusing or picturesque detail. The wealth of excellent illustrations—photographs, engravings, colored plates of paintings, etc.—is an important feature. Although names of people are not indexed, there is an index to Paris place names which covers whole articles, references in other articles, and illustrations. For libraries or individuals interested in the history of Paris, the dictionary should prove a valuable compendium of out-of-the-way information.—S.T.


To help compensate for the lack of a national bibliography of Ireland, this "exploratory" volume, "basically a bibliographical index covering the hitherto unexplored field of Irish enumerative bibliography . . . aims to serve as a quick reference guide . . . for Irish studies and research work." (Intro.) Included are catalogs, bibliographies—both separately published and those appended to books and articles—periodicals, indexes, unpublished work, and other primary sources. Even individual journal articles of a bibliographical character fall under the author's "sources of information." Material is arranged roughly by Dewey classification with appropriate subdivision. Entries with full information are numbered serially and listed alphabetically by author. Subject and author indexes make for ease of reference.—R.K.


More than twenty-one hundred items on the 1956 Hungarian Revolution and its consequences are listed in this bibliography which covers the period from October 1956 to December 1960. Arrangement is by the thirteen languages included, and within each language section items are grouped as books and pamphlets or as periodical articles. Titles are given in the original language, with some exceptions: Hungarian and Slavic book titles are followed by English translations, but article titles in those languages are given only in English. Appendices include lists of motion pictures, monitored broadcasts, periodicals cited, and bibliographical sources. There is an author-title index.—A.C.


By stringent selection of some seventy-six hundred references the editors have attempted to organize basic materials for research on East Germany and German nationals in East Central Europe (including the Baltic countries), and thus lessen problems arising from either a profusion of unselective bibliographies or none at all, and from the present-day political division of Germany and its consequences. A general section on East Central Europe precedes individual groupings for East and West Prussia, Pomerania, the Sudetenland, Posen, etc. Within each section are grouped bibliographical aids, journals and series, and references to books, articles, and dissertations on the political, social, economic, cultural, and religious history of these areas. The preponderant language of materials cited is German; science is excluded. Format is clear, and indexes of three hundred columns will prove most useful for quick reference and verifications.—E.J.R.


Although somewhat different in scope, this work is largely a continuation of A. W. Cardinal's A Bibliography of the Gold Coast (published 1932; Guide V267). Coverage here includes scientific, technical, and
purely literary works, as well as items relating to the historical, political, geographical, etc., aspects of Ghana and the Gold Coast as treated in Cardinali. Again a subject listing with author index, the new volume offers a somewhat more detailed subject breakdown than the older work. The aim was to include all book publications (except vernacular texts), with a selective listing of periodical articles. Libraries serving newly initiated African studies programs may find the sections on bibliographies, periodicals, newspapers, and directories useful as checklists.—E.S.


Intended as a kind of “Harvard Guide” for students and teachers of Spanish American history, this bibliography lists more than twenty-seven hundred items, mostly in Spanish. Books predominate, but some periodical articles are included. There is an extensive general section (with appropriate subdivisions for social and economic history, cultural history, diplomatic history, etc.) followed by chapters for individual countries with period subdivisions where applicable. The country sections (Brazil is omitted) usually include subsections on the general history of the country, historiography, bibliography, collections of documents, and a list of historical reviews and periodicals. Many entries are annotated or provide contents notes; unfortunately, references to the latter have not been included in the index. United States scholars and students should find the Guía an extremely useful complement to R. A. Humphreys’ Latin American History (Supplement 3V133) and the Handbook of Latin American Studies.—E.S.

**MUSIC MANUSCRIPT**

(Continued from page 48)

of earlier styles, and several items by Johannes Tinctoris (ca. 1435-1511): “Terminorum Diffinitorium Musices,” “Liber de Arte Contrapuncti,” “Proporcionale Musices.” The first named is the earliest dictionary of musical terms to be printed, though not the first written (MS dates from 1476 or earlier; printed ca. 1494). The other two treatises are less known than the dictionary, but more important; their titles give indication of their contents.

---

**CONCLUSION**

Strictly speaking, printing did not put an end to the music manuscript period. Because of the relatively small output of new compositions by music publishers, a handwritten score must often form the only link between a composer and his audience. The scribe of the middle ages is personified today in the music copyist, who by arduous manual duplication of the composer’s original makes possible performance and promulgation of the work. But now there is at least the hope of ultimate publication, and it is probably true that the best work of the best composers does get into print eventually.

So, for practical purposes, we may say that the sixteenth century saw the close of the manuscript period. The study of later music revolves around the printed score.

---

the body of theory up to his time, are discussed in Reese, Renaissance, 189-49.
Harvard’s president would be among those who discount as a literary form the presidential address, a kind of Gebrauchsmusik of the calling. Born of occasions as distant as the dedication of a children’s hospital and a University of Delhi convocation, these addresses offer, in graceful, elegant language, an index to the major concerns of the universities of the times: complexity, size, the impact of the practical and of government, the relation of research to teaching, the competition of sciences with the humanities.

Although, like his colleagues, President Pusey hints at an apprehensiveness about the size, complexity, and expense of maintaining libraries, his description of the values of reading and books will comfort librarians and reinforce their belief in their vocation:

Basic to all but the most elementary learning is reading. This is undoubtedly why it is properly a matter of concern to teachers from the first grade throughout the whole of formal education. But what is not so widely recognized is that in most cases the quality or lack of quality in a mental life perhaps owes as much to what one customarily reads as to any other one thing. It is for this reason that, though the simplest kind of reading may be acceptable fare for children at certain stages of their development, it is certainly not a sufficient staple for the intellectual fare of adults. Nor are newspapers or the average run of magazines sufficient by themselves—that is, apart from the supplementary influence of major books. Despite all our antipathy to “bookishness,” there is a disturbing truth here which we shall overlook at our peril.

What we are depends in a very considerable measure on the intellectual experiences we have had, or have not had—on the meaning we have found in life or have not found. Such experiences do not necessarily have to be found in books, but it is chiefly in books, in the best books, that the most illuminating human experiences are apt to be found...

If this be true, then to live apart from books is not to turn toward life but deliberately to cut one’s self off from significant understanding of it. And this is what will happen if we turn too far from the verbal, that is, from languages and literature, in our educational practices. Books, as another has said, are men thinking. They are also at their best the work of the men whose thoughts are most worth knowing. For their thoughts are the kind of thoughts that can both engender in us joy in new awareness and stretch our thinking (p. 36-37).—Donald Coney, University of California, Berkeley.


Any major encyclopedia is impressive in the sheer weight of statistics it can muster in its self-description, and Collier’s is no exception. A fact sheet distributed by the publishers, for example, reveals that the present revision contains more than eighteen thousand pages, twenty-one million words, and four hundred thousand entries in its index to twenty-six thousand articles. It presents more than seventeen thousand illustrations, sixteen hundred maps, and eleven thousand five hundred items in its bibliography. It was prepared by more than five thousand authors and editors. Without question, “monumental” is an appropriate adjective to apply to Collier’s Encyclopedia; not many of its competitors can top these figures.

More meaningful, however, in examining a particular edition of an encyclopedia are the numbers that can be used to describe its revision. No major encyclopedia, of course, can afford to prepare complete new editions more frequently than once in a lifetime, but a process of continuous updating goes on in all of their editorial offices. The 1964 “edition” of Collier’s, we are told, contains eighty-one new articles, three hundred new
illustrations, and eighty-four completely rewritten articles; more than thirteen hundred articles have been reviewed and updated, and more than three thousand pages have been changed. In applying these figures to Collier's, it must be borne in mind that this encyclopedia first appeared in 1950, so that even an article totally unrevised since its initial writing can be no more than fifteen or so years old. A sampling of the articles newly added or revised in the 1964 printing indicates that some of them occur where one would expect them to occur; such as the expanded article on "Space Science and Exploration." Other new pieces, however, could hardly have been expected; such as the new treatments of "American Literature," "Federalist Papers," and "Byzantine Empire."

Earlier editions of Collier's Encyclopedia are well known to readers of CRL, so its basic structure does not need extensive examination here. In summary, however, it could be pointed out that the articles—all but the most perfunctory of which are signed—have been prepared by recognized and unimpeachable authorities. Librarians have been much involved in the preparation of the encyclopedia. The names of no fewer than four ACRL members appear on the title and facing pages, and Dr. Louis Shores, of course, is editor-in-chief of the work.

The stated purpose of Collier's is to present "information accurately and authoritatively in a manner that is readily understandable by the general reader." It is obvious that great attention has been paid to this matter of the "general reader" and that family use as well as scholarly use has been much aspired to by its editors. In this reviewer's opinion, these aspirations will be attained, as the election of terms throughout has been admirably untechnical. Where it has been impossible to avoid technical terms, they have been clearly explained.

A subjectively determined impression of the relative simplicity of presentation among encyclopedias, however, is probably impossible to support on the basis of objective criteria. An attempt by this reviewer to develop statistics, for example, on the relative counts of one-, two-, and three-syllable words in articles on the same subjects in Collier's and in other major encyclopedias proved to be inconclusive; there was obviously greater variation on this yardstick from author to author within a single encyclopedia than between two different encyclopedias. It will probably not be questioned, however, that the larger type face, heavier leading, wider margins, and greater use of "white space" throughout Collier's than in many reference sets at least gives it the appearance of being easier for the "general reader" to attack and to overcome. The larger page size and somewhat longer line length, as well as the extensive use of illustrations—including line, tone, four-color, map, and chart illustrations, together with some effective transparent color overlays for certain special purposes and effects—all contribute to the impression it gives of being clear and readable and readily understandable.

The apparatus for utilizing the text is deserving of comment. Volume 24 contains the bibliography, a study guide, and an excellent index to the text, illustrations, maps, and bibliography. It is difficult for an academic librarian to judge intelligently the value of, or the need for, the study guide. It would be an interesting and perhaps even useful exercise for the publisher to poll a sampling of Collier's owners to determine the amount and kind of use being made of the study guide. To this reviewer the study guide appears shallow.

Almost any selective bibliography can be argued with, and the present one is not entirely an exception, although questions raised here must be of "exclusion" rather than of inclusion. The books listed are good books, leaving as the only allowable query: "Why include this title and not such-and-such another?" The bibliography is systematically arranged, and obvious efforts have been made to keep it current. Many purists, however, will continue to wish that the bibliographical notes appeared at the ends of the respective articles to which they pertain rather than presented as a completely separate corpus. This is, of course, a fundamental problem not possible of solution here.

In short, Collier's continues to be one of the major encyclopedic efforts available to the library community, and the revisions in the new printing make it clear that its producers intend that it remain so for a long time. As part of its responsibility to its home
and family purchasers, the publisher of course makes available its yearbook, but librarians will probably be more pleased to observe the sustained attempts being manifest to keep the basic work revised and updated. We wish Collier's all success in this effort.—D.K.


This slender volume contains the ten papers read at the Cornell dedication in the autumn of 1962. There are contributions by six librarians: Sir Frank Francis, Stephen A. McCarthy, Ralph E. Ellsworth, William S. Dix, Raymond C. Swank, George H. Healy; two professors: Lionel Trilling, and Steven Muller; one academic administrator: W. R. Keast; and one architect: Charles H. Warner, Jr. The papers vary in length, quality, and content but have a unifying theme which is libraries and graduate and undergraduate education, libraries and international affairs, and library development in the future—topics that are seasonable as well as perennial.

The paper by Sir Frank Francis, "Let the Past and Future Fire Thy Brain," is long, circuitous, and tranquilizing. Director McCarthy, in "The Cornell Library System," briefly described the development of the Cornell library system and revealed plans and hopes for the future. Mr. Warner concisely related the agony and ecstasy experienced in designing the Olin library and redesigning the Uris library. W. R. Keast, in "The True University of These Days Is a Collection of Books," explored the sweeping educational potential of the undergraduate library if use went beyond study hall and reserved reading functions. Professor Trilling, in "The Scholar's Caution and the Scholar's Courage," was critically concerned with the current quality of graduate studies in the humanities. Ellis Worth's "Libraries, Students, and Faculty," rebuked librarians for some current practices, universities for wasteful duplication of curriculums, and endorsed the humanities. Muller, in "Shrunken Globe, Swollen Curriculum," reviewed the internationalization of the American university curriculum and described the burdens and responsibilities this revolution has brought to the libraries. Dix, in "The Research Library and International Affairs Programs," spoke of library methods used to meet the challenge of the internationalized university. Swank, in "International Values in American Librarianship," defined librarianship as an "international affair in its own right" and discussed those aspects of American library practice which he considered valuable for export to developing nations. George Healey, in "Yes, But What Does a Curator Do?" gave answer to the question in a clever and delightful manner.

It is a significant event in the world of higher education when a most pressing educational problem is solved by large-scale investment in library buildings. It becomes more so when a private university with a strong tradition for academic excellence elects to demonstrate this evidence of long-range planning and faith in the value of quality education in this tangible manner. This book may be considered a memento of two pleasant days, or a reminder of the courage and foresight of the Cornell University administration.—Cecil K. Byrd, Indiana University.


This is a comprehensive work on library buildings. Since they are so richly documented, Anthony Thompson has successfully coordinated a large portion of the mass of available information and has presented it in a systematic and readable form. This reviewer agrees with the author when he says that he has tried to do the almost impossible—to illustrate with plans and photographs selected good examples of the main types of libraries, chiefly British, with a number from Europe, plus some notes on several outstanding exemplary buildings in the United States and British Commonwealth. He has produced "a systematic study of the whole subject, to serve not only as a reference book for students of librarianship, but also as a guide for librarians intending to build, and as a book on libraries for architects" (p. xi).
Anthony Thompson writes as a librarian who, after varied experience in university and special libraries and after much preliminary study of the planning and design of library buildings, spent five years at intensive documentation at the library of the Royal Institute of British Architects. From his point of view, Wheeler and Githens produced the only systematic, comprehensive, and well illustrated book on library buildings, *The American Public Library Buildings*, 1941. Mr. Thompson frequently refers to this volume and in his introduction he expresses regret that he did not have a full-time architect-collaborator.

In a brief review of this monumental work attention can best be called to the original form of documentation adopted by the author by giving an outline of the contents of the volume.

Part I is a summary of the problems and tasks of creating a library. It is a definite statement of nine subjects: (1) functions and services of libraries; (2) the planning process; (3) the site; (4) the plan; (5) exterior and construction; (6) interior finishes and decoration; (7) equipment and furniture; (8) accommodation and capacity; (9) cost. Selected general references are included.

Part II is devoted to an analysis of existing buildings. Section A contains a brief history of library buildings. It is introduced with summaries of libraries: in Classical Antiquity, in the Dark Ages, and in the Middle Ages. Then follow brief sketches of separate libraries in chronological order.

Section B consists of examples of modern buildings since about 1920. These are described systematically using the outline shown as Part I above. Many of these descriptions are in detail, with photographs and plans on two uniform scales, 1:300 or 1:600. They are divided into four types: (a) six national libraries and the Library of Congress Annex; (b) twenty-seven public libraries—seven branch, thirteen central, and seven county—including the Enoch Pratt free library and the public library of Cincinnati and Hamilton County; (c) twenty-six libraries of educational institutions—four school, six college, and sixteen university libraries. The college group includes the libraries of Georgia Institute of Technology, Massachusetts Institute of Technology, and Rice Institute. The group of university libraries includes Harvard’s Lamont library, the undergraduate library of the University of Michigan, and the libraries of the University of Iowa, Wayne State, and Maryland; (d) five storage libraries are described, one of which is the Midwest Inter-Library Center.

Thus, Anthony Thompson has made an original contribution to knowledge in perfecting a new form of documentation for libraries. He has produced a truly systematic, comprehensive, and well illustrated work with international coverage. His work merits intensive study by every type of library building consultant, by librarians who are to plan a building, and by architects who are interested in qualifying as library architects.—A. F. Kuhlman, Joint University Libraries.


H. R. Verry is a well known British consultant on documentation and reproduction and the writer of a column on the subject in the *Revue Internationale de Documentation*, but his latest book is a disappointingly shoddy production. Billed (in Verry’s own column) as “a comprehensive survey,” it is incomprehensive, incomprehensible in spots, seriously out-of-date, and carelessly edited. The chapter called “The History of Microfilm,” for example, is devoted almost exclusively to a retelling of the familiar story of René Dagron and the pigeons; the section on “Tests for Permanence” makes no mention of the widely used ASA standard test; and the only consideration given to copyright problems is a reprinting (as Appendix II) of the Royal Society Declaration of 1949. The publication date is July 1964, but much of the material has not been updated since 1961 or 1962. No mention is made in the chapter on “Rapid Selector Devices” of systems developed since 1961, such as Walnut, CRIS or Miracode, and the chapter on “Microfiche” describes it as “a sheet of film generally 7.5 cm. x 12.5 cm. (3 x 5 inches) in size.” The section on “Standards” lists ASA standard Z38.7.17-1946 (which was replaced in 1961 by PH5.6-1961), and PH5.2-1957 (which has been replaced by PH5.2-1963), and it omits entirely a number of other pertinent stan-
dards in the PH1 and PH4 series. Editorial faults are in places gravely misleading. Xerox Copyflo is described by reference to a "figure 29," but what this figure actually shows is the Electrofax method; nowhere is there a drawing illustrating Copyflo, nor a reference to an illustration of Electrofax. Worse, no mention is made of the essential fact that the paper used in the Electrofax process must be specially coated and that ordinary paper cannot be used.

But by all means the most remarkable part of this unfortunate production is the "full bibliography." It contains nothing later than June 1962, and it is riddled with errors. An article from American Documentation is listed as 1957 when it was actually October 1959, and another from the same journal is given as "Americ. Doc. 1, 3" when it was actually volume II, pages 167-70. The same page mentions a publication by "Rutgers" and cites another article negligently as "Office, 1961." R. W. Hale's Guide to Photocopied Historical Materials is listed under "Bale," and an article by Charles G. La-Hood is listed under "Hood." Included in a list of sixteen "Recommended Books" at the end is a novel by Georges Blond and a book by Rider, Fremont called (believe it or not) "Scholar of the Future Research Library."

The final fillip is a one-page "Subject Index" filled with useless headings such as "Accommodation" and "Activity" (to take the first two) and, to top it all off, an entry for "Fremount Rider" under the F's!

Recommended only for the most comprehensive collections.—Stephen R. Salmon, Washington University.


This study, which was prepared for "an ad hoc committee of leading librarians of New York City and State," was obviously designed to set the groundwork so that the research libraries of New York City might participate at the outset in any program of state support to research and reference libraries. It is, therefore, a testament to the foresight and acumen of the ad hoc committee and particularly to the organizers of that committee. The sponsoring group and the nature of the study guarantee the importance of the work, and it is disheartening that in such circumstances the report itself is so poor an achievement.

The city study is interwoven in recent history of library efforts in regard to research and reference libraries in the state, and it cannot be understood fully apart from that record. It is unnecessary to rehearse the multitudinous problems which have beset the larger reference and research libraries in recent years. However, in March 1960 the New York State Commissioner of Education appointed a committee to examine and recommend some solutions to these growing difficulties. In December 1961 the committee's findings were published in The Report of the Commissioner's Committee on Reference and Research Library Resources, which soon came to be known as "the 3 R's"—how significantly the 3 R's have changed.

The Report called for a state-supported system of regional library associations which by utilizing large libraries within each region, could provide for the reference and research needs of the student and research personnel of that area. It recommended the creation of a central state board which at the outset would aid in the development of regional associations and later would provide the administrative corps to carry on the work of coordinating the seven regional associations into a flexible cooperative network.

In 1962 the State Education department hired Nelson Associates, Inc., to do a pilot study "to determine how the proposed legislation . . . could be implemented in and how it would affect a specific area of the State." Their report of the seven-county area around Rochester was published as A Reference and Research Plan for the Rochester Area. The publication recommended a research center at the University of Rochester and a reference center at the Rochester public library. With generous support from the state and with true cooperation, not a one-way street, the plan was deemed practical and essential.

An area of specialized research needs of the state was studied in Ralph T. Esterquest's Strengthening Medical Library Resources in New York State (1963), and in
that same year Nelson Associates were called on again to analyze the requirements and effects of the implementation of the 3 R’s program on a statewide level (Strengthening and Coordinating Reference and Research Library Resources in New York State). The statewide report focused on the responsibilities of the proposed state board and the relationship of the regional associations to that board and to the state library. The report stressed again the need for ungrudging state subvention of the program and also recommended that the demands of special subject fields be met within the 3 R’s program.

Surveys allied to the 3 R’s in nature, but not a part of the state study, were going forward in the city. In August of 1963 Nelson Associates produced a study on the prospects for cooperation among eight educational institutions in Brooklyn (Brooklyn—A Center of Learning) and a month later the Council of Higher Educational Institutions published Rice Estes’ Study of Seven Academic Libraries in Brooklyn, which noted that these small libraries, all within a mile and a half of their most distant neighbor, could profit by planned cooperative measures. The Estes’ study was carried out for $3,750, a grant from the Fund for the Advancement of Education.

Legislative bills to implement the 3 R’s have been introduced and defeated twice in the Legislature, but since the original report of 1961 the 3 R’s have gained adherents steadily; and as each new study recognizes the need for state support if New York is to serve its citizens and to keep and attract research industry, passage of the bill is foreseen in the near future. In this context, the New York City committee of librarians decided to have a program ready for implementation at the drop of a gavel, and Nelson Associates were hired “to examine the ways in which the proposed 3 R’s legislation would affect library use in New York City.”

Working under a deadline and beginning their study at the end of the university and school year, the Nelson group decided to eliminate from their investigation any survey of university graduate and undergraduate use of libraries, and though they do not mention it, also of faculty use of libraries. Since this college-university group probably constitutes the single most important segment in advanced reference and research use, Nelson relied on two previous studies on student use, Cooperative Library Service for Higher Education (1960), and A Study of the Use of Metropolitan New York Libraries by Higher Education Students, both by Warren Haas. They relied also for their statistics on the Office of Health, Education, and Welfare figures for 1961/62, and made no effort to update, verify, or interpret these figures.

Nelson Associates attacked the survey by an examination of the history of cooperative library efforts in New York City since World War II, a scrutiny of the relevant library literature, correspondence with other institutions which had faced similar problems, interviews with library staff members, and an analysis of the information garnered from forty-five hundred questionnaires completed by reference users in twelve public libraries in the city. The use of the plural terms “correspondence” and “interviews” indicates that more than one of each took place, but exactly how many is left unnoted. Perhaps Nelson Associates felt it was immaterial since the great bulk of the report is based on the replies to the questionnaire.

In the introduction to the first appendix, Nelson Associates list some of the material reasons for approaching the questionnaires with caution, but with little else to guide them, their report is almost wholly an inflated analysis of the responses to the canvas. The findings are unexceptional, much as one would anticipate. The fact that all of the responses could have been foretold is not necessarily a fault, for documentation of an argument, particularly for the purpose of proposed legislation, is extremely important. In this report, however, the documentation, despite the charts and maps, is meager. The most significant replies concern the volume and purpose of the use the respondents made of the library they were then using and of other libraries in the city. Associated with these questions were such queries as the occupation of the respondent and suggested improvements in service.

The recommendations which then follow in sequence do not necessarily follow in consequence. They could have resulted from the finding of this study, of almost any other study, or from no study at all.
The recommendations in order are:

1. The establishment of a New York library service authority.
2. The construction of an undergraduate college-oriented reference library at 42nd Street.
3. A program for interinstitutional library use for undergraduates and doctoral students and faculties.
4. A program of research into library activities in the area.
5. Improved utilization of paperback publications in connection with reserve collections at college libraries.
6. Identification of special subject advanced research level holdings and their designation as the advanced research centers under the 3 R program.
7. A site location study to select the optimum site or sites for the establishment of future college-oriented reference libraries.

Of these, the hortation for the use of paperbacks must be regarded as fatuous. The recommendation on interinstitutional use is idealistic but impractical and could be turned to use by those irresponsible administrations who have always regarded library cooperation as a device to let George and the New York public library handle their problems. The other recommendations are secondary to the prime suggestion for the establishment of a New York library service authority—on which recommendation the value of this report ultimately hangs.

This recommendation, to develop a private legal body, supported apart from any other institution in the city, headed by influential members of the community is the pièce-de-résistance of the report. Such an organization could provide the manpower and the facilities to implement decisions and recommendations made in concert by the libraries of the city, an element lacking in the history of previous cooperative efforts since no one institution could afford to carry on the involved time-absorbing operations which would be required in any situation as large and as complex as the library problems besetting the city. Such an establishment could also perform the necessary research and provide the leadership to develop needed cooperative programs on a pay-as-you-go basis, and could be devised so as to conform to the proposed 3 R legislation so that city libraries would be prepared to step into the state-supported program. When the legislation is enacted, the authority could either dissolve into a regional body or help to bring such a body into existence and continue to work alongside it, each with different responsibilities. This recommendation is naturally the one which has fired the interest of the New York City librarians.

The Nelson Associates report was financed by two equal grants from the Old Dominion Foundation and the Council on Library Resources, $32,000—a goodly sum.

—Bernard Kreissman, City College, New York.


The results of the Purdue survey are both revealing and disappointing. Undergraduates, the group surveyed, possessed strongly favorable attitudes toward the Purdue University libraries, the university in general, and also toward the American library system—evidence of intellectual gerrymandering, or at least as the survey puts it “a social-culturally induced predisposition of the student to regard the institution favorably.” Furthermore, the strongly favorable attitude toward the Purdue libraries was independent of frequency of use and scholastic achievement and class in the university. Unfortunately, knowing a student’s attitude score toward one institution helped but little in inferring his attitude toward another specified institution.

On the basis of median values students ranked the card catalog first and the reference librarian fourth in a list of nine facilities. Readers are reminded that these are relative rankings and do not suggest the intrinsic worth of the facilities. Interestingly enough, the rankings of the nonfrequent users of the libraries paralleled the ranking of the frequent users.

Both the students and the Remmers-Kelly scale for measuring attitudes toward institutions seem insensitive. That the latter is true might have been expected by the surveyors since the scale has not been altogether well received. It is, however, a simple and
inexpensive technique for measuring attitude. The survey methodology is good and well applied. The students’ insensitivity must have been bitterly received by the staff of the Purdue libraries. The library gets neither the credit nor the blame from frequent or infrequent, voluntary or forced use by good or poor students, which does not say much for the teaching function of the library or the librarian. It is hard to believe, however, that there is no meaningful variety in the attitude of students when faced with the problems of negotiating their way through four years of the academic enterprise, including the library. Apparently it will take a measuring instrument of higher powers of resolution than the Remmers-Kelly scale to define the variety.

In spite of the long delay prior to publication the survey is worth knowing about. At least, as the director of the Purdue libraries has pointed out, we know some of the independent variables which are not as important determinants of attitudes as we might expect. We might next check the correlation between students’ attitude toward the library and the institutions of bureaucracy, regimentation, and source of student income. Indeed, librarians might extract much more meaning from a study of the complete student and why he behaves as he does than from a study of his attitude towards a particular institutional agency. Purdue is on the right track: concentration on student attitude will provide better long range guidance for the development of academic libraries than does attention to local opinion.—Russell Shank, Columbia University.


At the 1933 conference in Chicago an ALA subcommittee reported that 43 per cent of the library school graduates on its registration list were unemployed. Shortly before the 1933 conference an academic librarian, in an article typical of the professional literature of the period, wrote of his none-too-successful efforts to entice students into the college library. A few months later two public librarians came out in opposition to the recent movement for “a library in every school in the country” and argued that school libraries should be abolished and their functions assumed by public libraries.

The wheel turns. By 1963 there were too few libraries of all kinds, too many students of all ages pressing upon inadequate resources, and four thousand overemployed librarians gathered in the famous Conference Within a Conference to inquire into the resulting “dilemma.” Student Use of Libraries presents the results of this most massive brainstorming session in library history.

Readers will be familiar with the development of the CWC, and many will have attended, or read the background papers which were widely distributed beforehand. Therefore no detailed assessment of the speeches, papers, and comments printed here will be attempted. Over-all, one has the impression of a rather strange buffet table, with lush bowls of caviar (Mason Gross’ opening and Samuel Gould’s closing speeches) at each end, and with five plates of meat and potatoes (the background papers and comments) in between.

The significance of the CWC, it seems to this reviewer, does not lie in this published record, as welcome as it is. There are no bright new ideas about how to solve the student-use problem, except for the suggestion of a school superintendent that “the entire library operation be made a part of the public school system,” which was ignored. (In justice, it should be noted that President Bryan’s list of conference objectives did not specify a search for such ideas.) Except for the contribution by the Library Services Division staff, there is little hard information or data “as to the extent of the problem of student need and student use,” which Mr. Bryan did call for.

The primary purpose of the CWC, however, was not to offer ready-made solutions but to break through the barriers between public, academic, and school librarians and focus their attention on a common interest, to obtain appropriate publicity, and—presumably most important—to set a climate of concern and establish a momentum which would result in some substantive improvements.
As for the first of these, this reviewer is frankly skeptical. After seven hours of low-level communication in one of the 123 discussion groups, he voted vehemently against all recommendations requiring further communication among librarians or between them and others. Perhaps his was an atypical group, or perhaps he is a misanthrope; other participants reported more fruitful experiences. As for the publicity objective, it is possible that the CWC contributed something to the national library legislative victories which followed within six months. Its success, however, will rest ultimately upon substantive results directly related to the student use problem. The ten major recommendations coming out of the conference have been referred into the ALA structure, and President Wagman reported recently that "many are well on the way to implementation." So far the most tangible result is another conference, scheduled for March 1965, with representatives of other national organizations.—Clifton Brock, University of North Carolina.

PROFESSIONAL DUTIES

(Continued from page 39)

or Clerical?" Library Journal, LXXXVI (September 1, 1961), 2758-59. Used one hundred professional and clerical duties selected from ALA List to check actual practices in twenty-one public libraries.

Houlridge, D. L. "Division of Staff: A Canadian Example," Assistant Librarian, LVII (October 1958), 201-203. List of duties drawn from Toronto public library practices.


Lochhead, D. G. "I Am a University Librarian," Canadian Library Association Bulletin, XIII (December 1956), 100-105. Description of a "typical" day in the life of a university librarian, showing how his time is spent.


McNeal, Archie L. "Ratio of Professional to Clerical Staff," CRL, XVII (May 1956), 219-23.

Skilling, B. C. "Restrictive Practices," Assistant Librarian, L (December 1957), 222-23. Author urges that professional librarians restrict themselves to professional tasks.

Smith, Eleanor T. "What's in a Name?—the Reference Librarian." NCLA, Odds and Book Ends, No. 36 (Fall 1960), 101. Analysis of work of reference librarian in a public library.


AFRICAN UNIVERSITY

(Continued from page 51)

...ucational development should have been one of the subjects for discussion at this conference.

4. The development of educational programs in Africa requires the establishment of a network of supporting regional, national, and international libraries to provide the necessary information services dealing with the problems of African education. **
lished in implementing the law. Too often, remedies which are available within these flexible provisions have not been used. At the same time, a considerable number of librarians have expressed their disappointment that a great many more detailed rules and regulations have not been promulgated covering almost every conceivable aspect of depository operation under provisions of the law.

During the current year, the Superintendent of Documents expects to distribute more than six million copies of publications to depository libraries. His staff is constantly refining breakdowns for selection, as far as possible, to provide librarians with the means of selecting specific material without the necessity of including also, other publications for which they do not have a need. This was formerly a much greater problem, particularly in the category of general publications. While emergency needs can still cause an agency to include diverse and unexpected issuances in such a category, there is a definite trend toward their separation of similar or recurring issuances into particular series.

As it becomes possible to identify, with the help of the issuing government agencies, their publications not printed by the Government Printing Office that also come within the depository program for the first time under the 1962 depository law, and as the agencies are able to make available these publications in sufficient quantity, the Superintendent of Documents will begin including them among those offered to depository libraries for their selection. There have been many conflicting accounts of the efforts necessary to implement this far reaching and new provision of the depository distribution program. The concern at the Government Printing Office has been whether it would be possible to carry out this provision of the law, since there is absolutely no control over the publications involved. A tremendous problem of initial screening is necessary. Everyone admits that, of some $100,000,000 worth of printing done each year by United States government agencies outside the Government Printing Office, only a relatively small percentage will be needed by the depositories. After that portion is identified, many government agencies will face the problems imposed by limitations of their resources which may affect their ability to produce the additional copies that would be required for distribution, as well as to transport them to the Government Printing Office in quantity from production points located all over the world. We are attempting to make a modest beginning in the forthcoming fiscal year,
with the publications of two agencies, the Department of the Interior and Bureau of the Census. From the experience of this effort we hope to secure data which will help both our office and the issuing government agencies as this monumental task continues and expands in the years ahead.

College libraries which are federal depositories have a joint responsibility with the office of the Superintendent of Documents for making available the essential information provided by publications of the United States government. The new depository law provides for an expanded number of collections to be used by those who need them; an improved administrative structure and opportunity for better service, through the provision for regional depositories; and a future which offers interesting possibilities, despite the serious problems involved, for an extension of the type of government material that these libraries can offer to their students and other scholars who may need them.

Committee on Library Surveys Conference

The ACRL Committee on Library Surveys and Columbia University will have a conference on June 14-17 at Columbia. Tentative conference topics include types and purposes of surveys, sources of information, and applications to types of libraries; and some practical problems.

NOTE

Address Change

The editorial, advertising, and production offices of CHOICE: Books for College Libraries moved to larger quarters on December 31. The new address is 42 Broad Street, Middletown, Conn. 06458. The new telephone number is (203) 347-6933.

ACRL MEMBERSHIP
December 31, 1964

Total .................. 8,874
Subject Specialists .... 1,468
Junior College ........ 699
Teacher Education .... 506
University ............ 3,035
College ................ 2,345
Rare Books ............ 726
Institutional Memberships .......... 1,662

Please note that many members do not select membership in sections although two section memberships are available without extra charge.
Association of Southeastern Research Libraries

The Association of Southeastern Research Libraries was called to order at 8 P.M. on October 28 at the Golden Triangle Hotel in Norfolk, Virginia, by W. Porter Kellam (Georgia), chairman.

David Kaser (JUL) reported that the list of serials needed in the region had been winnowed to some fifty entries. It was decided that the list would be distributed to the membership with invitations that libraries select from it titles that they would be willing to acquire.

Stanley West (Florida) reported upon a study of research strengths in libraries of the region. A preliminary report had been recently distributed, and ways were discussed of refining it. Two additional actions appear warranted:
1. Supplemental rating sheets would be distributed in library science, mining engineering, Italian history, and other overlooked areas.
2. Members would check the preliminary report carefully, making whatever revision in their self-ratings appear necessary, and notify Mr. West.

T. N. McMullan (LSU) reported 100 per cent response to a questionnaire circulated to members concerning photocopying in the interlibrary loan process. Copies of his report had been distributed. It was decided that ASERL would urge its members to adopt a policy of charging 10 cents per print for Xerox copies, with a minimum charge per order of no more that $1.00, and of supplying Xerox copies automatically in lieu of loan when the charge for the order does not exceed $1.00. It was further decided that since the Air University cannot charge for photoprints, ASERL members be urged to reciprocate by not charging the Air University for such prints.

John Gribbin (North Carolina) then reported upon a project to acquire in his institution back files of selected domestic newspapers. Thus far efforts to obtain outside funding for the project have failed, but North Carolina is purchasing into the list as far as possible with institutional funds. It was pointed out that the Midwest Interlibrary Center anticipates proposing to the Association of Research Libraries a domestic newspaper project similar to the ARL–MILC foreign newspaper project.

Harlan Brown (North Carolina–Raleigh) pointed out the need to film the early years of the Progressive Farmer because of the bad paper upon which the original was published. He reported that he had obtained funds for making a negative of the years 1886–1901 of the periodical and may also be able to fund 1901–1909. The paper during these years is at its worst. Considerable interest was expressed in the project. He will continue to push the project and will consult with the editor of the Microfilm Clearing House Bulletin for possible interest outside of the Southeast.

Mr. Kellam reported that there is $3,353.33 in the association treasury. Mr. West reported for the nominating committee that it was proposing Guy Lyle (Emory) for chairman of the association. Nominations were closed, and Mr. Lyle was declared chairman by acclamation.

After discussing possible schedules and sites for future meetings and inviting program suggestions, Mr. Lyle adjourned the meeting at 11:15 p.m.—D.K.
Forty-four college and university libraries were awarded funds by the ACRL Grants Committee at its meetings in Coral Gables, Florida, November 29–December 1. Five grants were also made to individuals for research projects and thirteen grants were made to libraries specifically for equipment. In addition, one hundred libraries were selected to receive from the Microcard Foundation a Mark VII reader and selected microcards. The total value of these grants is approximately $138,500. Selections were made by the committee from over three hundred applications and a list of 247 institutions eligible for the Microcard Foundation awards. Although geographical spread is not considered in the committee’s decisions, it is interesting that forty-one states and Puerto Rico are represented in the list of 162 awards to institutions and individuals.

Two hundred and fifty-five applications from libraries and individuals were for aid under the "subgrants" program. Support of this for the current year came from Bell and Howell, McGraw-Hill, Olin, Pitney-Bowes, Time, H. W. Wilson, and U. S. Steel. The awards from these funds to libraries total $26,400; $4,560 was assigned to individuals for research projects.

The institutional awards represent a wide variety of projects. Seven grants will meet needs for various categories of reference materials. Area studies are represented by two grants for African materials, two for Russian and four for Asian. Three grants were made for back files of journals, four for the literature of history, two for books on the Negro; other grants were made for purchases in chemistry, biological sciences, psychology, government documents, sociology, music, education and English literature. Several grants are impossible to categorize because of their general nature as for example, a modest award to a library which had suffered a disastrous fire. Although these funds are seldom available for equipment, one grant was made for a microfilm reader. Needless to say, the situation at this institution was unusual.

It is perhaps rash to attempt an explanation of the criteria used by the committee in selecting one in five applications for these awards, but a few should be mentioned. As the ACRL form states, an important consideration is the application to undergraduate needs and uses. For example, a request for South East Asian, African, or American literature carries little weight unless the reason for the special need is stated in terms of a new program of instruction, an honors program, or some special emphasis in the curriculum. The committee is definitely interested in the undergraduate use to which will be put those books and journals bought with the grant. A surprising number of applications do not include a statement to this effect.

A few relatively well-to-do institutions were passed over largely because of their "affluence" and a few at the other end of the spectrum were treated likewise because they were considered too weak. Some good applications were rejected solely because the program had made grants to these libraries in several recent years. Poor library support by the administration counts negatively, as does a request for equipment. Grants for salaries or binding are almost never made. A few applications always omit mention of the sum needed, and a few others request sums well above the rather arbitrary $1,500 which will be the practical ceiling until this grants activity wins far greater support from foundations and industry.

The applications inevitably turn up unexpected problems. One dear Sister librarian presented a moral issue which is best stated in her own words "While it may be unwise to request more... it is tempting—and I am yielding!—to ask also for..." This particular temptation was convincing. The committee took a firm policy decision against the encouragement of all temptation, or sin in any form, especially on the part of those in clerical orders. It then approved the additional request.

The thirteen grants made for equipment totaled $7,500, made available by the Rem-
ingston Rand division of Sperry Rand Corporation. These were selected from fifty-one applications. The smallest assignment was $265 and the largest $1,100. Most were in the $500 to $800 range. These grants represent credit for Remington Rand equipment, including shelving (3), card catalogs (4), listening tables but not record players (2), periodical racks (1), study tables (1), and two requests for an assortment of wood furnishings.

Grants from the Microcard Foundation represent an approximate value of $1,000 each for the Mark VII reader and a collection of scholarly material on microcards. The committee made their selection from a list of larger institutions which did not presently own a reader. No applications were involved. The readers and material are being shipped directly from the Foundation to recipients. In making these awards the committee had to depend on criteria of size, budget, known program, and probable need for research materials in this form.

All applications for funds are carefully studied by each member of the committee before the group meets. The discussion of promising applications is exhaustive and almost completely devoid of personal interest and prejudice. Decisions are unanimous. A full day of this work is an exhausting experience.

The ACRL grants program was initiated in 1955 with a grant of $30,000 from the U. S. Steel Foundation, which has continued its supporting grants throughout the years. A principal objective of the committee has been to raise and distribute money to assist libraries in privately supported institutions for the purpose of meeting the needs of undergraduate instruction. While grants have necessarily been small, it is believed that over the years they have been of material assistance in improving the level of instruction in many hundreds of institutions.

Members of the ACRL Grants Committee for 1964/65 are: George M. Bailey, ACRL executive secretary (ex-officio); Humphrey G. Bousfield, librarian, Brooklyn College; Helen M. Brown, librarian, Wellesley College; Wen Chao Chen, librarian, Kalamazoo College; Miss Johnnie Givens, librarian, Austin Peay State College (Tenn.); Mark M. Gormley, librarian, University of Wisconsin, Milwaukee; Archie L. McNeal, di-rector of libraries, the University of Miami, and ACRL president (ex-officio); Arthur T. Hamlin, university librarian, University of Cincinnati (chairman).—Arthur T. Hamlin.

1964/65 ACRL GRANTS AWARDS

Augustana College, Sioux Falls, S.D., $625.
Barry College, Miami, Fla., $500.
Bellarmine College, Louisville, Ky., $1,500.
Brescia College, Owensboro, Ky., $700.
Chatham College, Pittsburgh, Pa., $1,000.
Church College of Hawaii, Laie, Oahu, Hawaii, $900.
College Misericordia, Dallas, Pa., $400.
College of Mount Saint Vincent, Riverdale, N.Y., $500.
College of the Ozarks, Clarksville, Ark., $500.
College of Sacred Heart, Antwerp, P.R., $350.
College of St. Mary, Omaha, Neb., $500.
College of St. Teresa, Winona, Minn., $1,000.
College of Steubenville, Steubenville, Ohio, $400.
Dominican College, Racine, Wis., $200.
Earlham College, Richmond, Ind., $500.
Elmira College, Elmira, N.Y., $900.
Grinnell College, Grinnell, Iowa, $500.
Hampton Institute, Hampton, Va., $800.
Hastings College, Hastings, Neb., $500.
Heidelberg College, Tiffin, Ohio, $400.
Hood College, Frederick, Md., $600.
Huntington College, Montgomery, Ala., $900.
Iona College, New Rochelle, N.Y., $700.
Keuka College, Keuka Park, N.Y., $600.
LaGrange College, LaGrange, Ga., $750.
LeMoyne College, Memphis, Tenn., $500.
Lynchburg College, Lynchburg, Va., $1,000.
Mary College, Bismarck, N.D., $275.
Marymount Manhattan College, New York City, $500.
Monmouth College, West Long Branch, N.J., $850.
North Carolina Wesleyan College, Rocky Mount, N.C., $1,000.
Park College, Parkville, Mo., $500.
Rio Grande College, Rio Grande, Ohio, $900.
St. Joseph's College for Women, Brooklyn, N.Y., $500.
San Diego College for Women, San Diego, Calif., $500.
Sarah Lawrence College, Bronxville, N.Y., $300.
Seattle Pacific College, Seattle, Wash., $500.
Tennessee Wesleyan College, Athens, Tenn., $500.
Trevceca Nazarene College, Nashville, Tenn., $450.
University of Dubuque, Dubuque, Iowa, $400.
Upsala College, East Orange, N.J., $350.
Wabash College, Crawfordsville, Ind., $400.
Wheeling College, Wheeling, W.Va., $600.
Research Grants for Individual Studies were made to:

Frank J. Anderson, librarian of Kansas Wesleyan University, Salina, for a guide to research materials in the field of naval, maritime, and nautical history ($635).

Rita Benton, music librarian, the State University of Iowa, Iowa City, for an historical and bibliographical study of Ignace Pleyel ($1,000).

William Katz, associate professor, department of library science, University of Kentucky, Lexington, for a supplementary checklist of Washington imprints including investigation of new sources for such studies ($635).

Robert O. Lindsay, chief of social studies, and John Neu, bibliographer, the University of Wisconsin library, Madison, for a union list of French political pamphlets in the United States, 1550-1653 ($1,000).

Joseph Spring, librarian, Loretto Heights College, Loretto, Colo., for an index to the works of G. K. Chesterton ($925).

1964/65 EQUIPMENT GRANTS

Chaminade College of Honolulu, Honolulu (Brother Vincent Steele), bookcases with locking glass doors.

College of St. Mary of the Springs, Columbus, Ohio (Sister Joseph Damien), wood shelving.

Erskine College, Due West, S.C. (Mrs. Marie S. Boyce), card catalog.

Hiram College, Hiram, Ohio (Thelma R. Bumbaugh), listening table.

Loyola College, Baltimore, Md. (Rev. William Davish, S.J.), magazine holder.

Maryville College of the Sacred Heart, St. Louis, Mo. (Mother Mary Elizabeth Dowling), bookstacks.

Mt. Mary College, Milwaukee, Wis. (Sister M. Angela Merici), card catalog.

Notre Dame College, St. Louis, Mo. (Sister Mary Celia), book trucks and book bin.

Notre Dame College, Cleveland, Ohio (Sister Mary Genevieve), listening table.

Sacred Heart College, Wichita, Kan. (Sister Mary Dolores), book display racks, bulletin board, and magazine rack.

Salen College, Clarksburg, W.Va. (Elizabeth Sloan), card catalog.

Siena Heights College, Adrian, Mich. (Sister Miriam Patricia), reading tables.

Transylvania College, Lexington, Ky. (Roemol Henry), card catalog.

MICROCARD FOUNDATION GRANTS

Howard College, Birmingham, Ala.

Florence State College, Florence, Ala.

Jacksonville State College, Jacksonville, Ala.

Arkansas State College, State College, Ark.

California Western University, San Diego, Calif.

Pacific Union College, Angwin, Calif.

Colorado Womans College, Denver, Colo.

Regis College, Denver, Colo.

Central Connecticut State College, New Britain, Conn.

Fairfield University, Fairfield, Conn.

Barry College, Miami, Fla.

Jacksonville University, Jacksonville, Fla.

Florida Presbyterian College, St. Petersburg, Fla.

University of Tampa, Tampa, Fla.

Agnes Scott College, Decatur, Ga.

Savannah State College, Savannah, Ga.

West Georgia College, Carrollton, Ga.

College of Idaho, Caldwell, Idaho

Illinois Wesleyan University, Bloomington, Ill.

MacMurray College, Jacksonville, Ill.

Goshen College, Goshen, Ind.

Manchester College, North Manchester, Ind.

St. Ambrose College, Davenport, Iowa

Georgetown College, Georgetown, Ky.

Dillard University, New Orleans, La.

Bates College, Lewiston, Me.

Nasson College, Springvale, Me.

Goucher College, Baltimore, Md.

Hood College, Frederick, Md.

Morgan State College, Baltimore, Md.

University of Baltimore, Baltimore, Md.

State College at Bridgewater, Bridgewater, Mass.

Alma College, Alma, Mich.


Hope College, Holland, Mich.

Marygrove College, Detroit, Mich.

College of St. Catherine, St. Paul, Minn.

College of St. Teresa, Winona, Minn.

Alcorn A. & M. College, Lorman, Miss.

Eastern Montana College of Education, Billings, Mont.

Bloomfield College, Bloomfield, N.J.

Jersey City State College, Jersey City, N.J.

Newark State College, Union, N.J.

Paterson State College, Wayne, N.J.

Upsala College, East Orange, N.J.

Hamilton College, Clinton, N.Y.

Manhattanville, College-Sacred Heart, Purchase, N.Y.

Nazareth College of Rochester, Rochester, N.Y.

New York Institute of Technology, New York, N.Y.

St. Bonaventure University, St. Bonaventure, N.Y.

State University of New York, College of Education at Brockport, N.Y.

(Continued on page 78)
College and University Librarians—

"KNOW WHAT YOU'RE TALKING ABOUT—READ,"

Is Good Advice for Everyone

Make It the Key
Of Your Program for
NATIONAL LIBRARY WEEK
April 25—May 1, 1965

Robert K. Johnson, Chairman; Dorothy M. Drake, Lorena A. Garloch, Katheryne Mallino, Fleming Bennett, Grace Farrior, Sarah D. Jones, N. Orwin Rush.
Conference of Eastern College Librarians

Some three hundred academic librarians gathered in Butler library's Harkness theater at Columbia University on November 28 to celebrate the fiftieth Conference of Eastern College Librarians. The meeting was chaired by Jean H. McFarland of Vassar.

The first speaker was Harold McL. Turner of the school of library service whose paper on “CECL's First Fifty Years” was both witty and informative. Beginning his presentation with the forty-some charter members of the group who first met in 1912, he traced the group's activities, both formal and informal, during its venerable history. Especially interesting was his discussion of the dynamic stewardship of the group over many years by C. C. Williamson, and the annual unofficial preconference stag dinners over which he presided. He told of the unsuccessful efforts about halfway through the life of the CECL to bring it into forced kinship with ACRL. He attributed much of CECL's success to its loose organization, its informality, and its small size. He enumerated many matters that have commanded the attention of academic librarians during the past half-century but which have had their first public airing in the CECL framework. Mr. Turner also prepared a “keepsake” volume for the occasion entitled Fifty Candles for Eastern College Librarians which was made available to conference registrants.

Mildred L. Campbell, professor emeritus of history at Vassar, was the second speaker; her talk was entitled “Research and the Librarian.” She described in some detail her lifetime of experiences utilizing libraries—primarily local libraries and archives in England—and told of some of the personalities she had encountered in her quest for library service. Especially timely were her comments upon the responses she had received during some three decades from librarians whom she had faced with special problems born of developing technology, such as her requests for permission to employ an early version of a scholars' microfilm camera and for accommodations for utilizing a tape recorder in exploiting a library's book and manuscript collections. She closed with a plea for academic librarians to spend more time orienting students to the proper use of libraries and less time handing them information, for when the former is done, the librarian is entering into the basic task of the institution—truly educating the student.

The session was then adjourned to lunch in the John Jay dining hall where discussion continued in small informal groups. It was reconvened for an afternoon agenda at 1:30 P.M.

The first speaker of the afternoon was Douglas Bryant, university librarian of Harvard, whose topic was “University Libraries and the Future.” Radical and rapid changes in the information requirements of society, he pointed out, are precipitating broad problems for research libraries. Teaching methods have changed; interdisciplinary research has increased; information exchange has speeded up; the university library has had to assume greater involvement in current, vibrant social problems; a microphotographic revolution is underway; automation now faces the library industry. These and other similar new problems demand new solutions, but these solutions will have to be accomplished by people. Thus, he felt, the place to begin is at the point of educating librarians to fulfill new and changing roles.

Mr. Bryant was followed by Jack Dalton, dean of the school of library service at Co-
lumbia, whose talk was appropriately entitled, "Library Education and the Future." Much of the future orientation of library education, he contended, was adequately determined in outline years ago. The ALA standards for library education are still valid, and the general education of young librarians is still the most important part of their professional preparation. Although automation, for example, is clearly the most consuming present concern of the profession, it is less clear that new departures are needed in library education to accommodate it. Greater communication between library educators and librarians in the field, he observed, would serve both groups well. There is confusion which needs to be eliminated between the specialist and the librarian as to what society needs in the way of an information exchange system; when this situation is clarified the preparation of librarians can perhaps be made more appropriate to the task. Meanwhile librarians should do all they can to recruit to the profession the caliber of person they feel will be able to do what the future will require of librarianship.

Following a brief period of spirited discussion the golden anniversary Conference of Eastern College Librarians was adjourned to the school of library service where registrants enjoyed a pleasant reception as guests of the school and of the Columbia University libraries.—D.K.

ACRL GRANTS COMMITTEE AWARDS

(Continued from page 75)

State University of New York, College of Education at Buffalo, N.Y.
State University of New York, College of Education at Fredonia, N.Y.
State University of New York, College of Education at Geneseo, N.Y.
State University of New York, College of Education at New Paltz, N.Y.
Appalachian State Teachers College, Boone, N.C.
High Point College, High Point, N.C.
Western Carolina College, Cullowhee, N.C.
Central State College, Wilberforce, Ohio
Otterbein College, Westerville, Ohio
Central State College, Edmond, Okla.
Northeastern State College, Alva, Okla.
Oregon College of Education, Monmouth, Ore.
Southern Oregon College, Ashland, Ore.
Cheyney State College, Cheyney, Pa.
Clarion State College, Clarion, Pa.
Edinboro State College, Edinboro, Pa.
Kings College, Wilkes-Barre, Pa.
Lock Haven State College, Lock Haven, Pa.
Millersville State College, Millersville, Pa.
Muhlenberg College, Allentown, Pa.
Susquehanna University, Selinsgrove, Pa.
University of Scranton, Scranton, Pa.
Westminster College, New Wilmington, Pa.
Wilkes College, Wilkes-Barre, Pa.

Catholic University of Puerto Rico, P.R.
Rhode Island College, Providence, R.I.
The Citadel, Military College of South Carolina, Charleston, S.C.
Austin Peay State College, Clarksville, Tenn.
Carson-Newman College, Jefferson City, Tenn.
East Tennessee State College, Johnson City, Tenn.
Middle Tennessee State College, Murfreesboro, Tenn.
David Lipscomb College, Nashville, Tenn.
University of the South, Sewanee, Tenn.
McMurray College, Abilene, Tex.
Stephen F. Austin State College, Nacogdoches, Tex.
Sul Ross State College, Alpine, Tex.
Tarleton State College, Stephenville, Tex.
Texas Southern University, Houston, Tex.
Texas Wesleyan College, Fort Worth, Tex.
Trinity University, San Antonio, Tex.
Middlebury College, Middlebury, Vt.
Madison College, Harrisonburg, Va.
Old Dominion College, Norfolk, Va.
Virginia Military Institute, Lexington, Va.
University of Pudget Sound, Tacoma, Wash.
Concord College, Athens, W.Va.
Carroll College, Waukesha, Wis.
Wisconsin State College, Oshkosh, Wis.
Wisconsin State College and Institute of Technology, Platteville, Wis.
ACQUISITIONS

LOMA LINDA UNIVERSITY has accepted a general library collection of some sixty thousand new and used volumes on permanent loan from Stanley S. Slotkin.

SAN DIEGO STATE COLLEGE library has acquired a collection of more than two hundred items concerning Franklin D. Roosevelt.

STANFORD archive of recorded sound has received a gift of some seventeen hundred 78-rpm discs of classics from the Middle Ages to the present, and folk and national music from Anatole Mazour. Five hundred discs were given to the archive by David Allen, including items of folk music and early jazz.

BELLARMINE COLLEGE library has acquired a collection of papers, manuscripts and writings of Thomas Merton.

The AMERICAN ANTIQUARIAN SOCIETY has received more than thirteen hundred works concerning French-Canadian history from Dr. Gabriel Nadeau.

SYRACUSE UNIVERSITY has been given a private collection of works of nineteenth and twentieth century English and American writers which includes forty-eight thousand first editions, privately printed works, manuscripts, letters and documents, autographed works, and books with unusual bindings. Donor is John S. Mayfield, curator of manuscripts and rare books at the university.

OHIO STATE UNIVERSITY libraries has acquired books and literary materials owned by the late Hans Sperber. The collection includes French and German works from the seventeenth century and later on philosophy, history, and culture; American and English political history, literature, and humor; and German and Scandinavian literature, cultural history, folklore and linguistic theory.

The FREE LIBRARY OF PHILADELPHIA has been given the original manuscript of Charles Dickens' Life of Our Lord.

The papers of the late Senator Estes Kefauver have been given to the UNIVERSITY OF TENNESSEE and are available to scholars in the main library at Knoxville.

Bailey library of the UNIVERSITY OF VERMONT has acquired two collections of Canadiana—about fourteen hundred volumes—in support of the university's new Canadian studies program.

AWARDS, GIFTS, SCHOLARSHIPS

THE MEDICAL LIBRARY ASSOCIATION will award four scholarships in 1965—the Mildred M. Jordan scholarship of $150; the MLA Midwest Regional group's two scholarships of $50 each, and the J. Alan McWatt scholarship of $1,000 presented to the association by Lederle Laboratories. Deadline for applications is March 1. The Marion Dondale scholarship was awarded this year by MLA to Dorothy Eakin, Columbia University school of library science.

THE SPECIAL LIBRARIES ASSOCIATION offers seven scholarships for 1965/66, each for $1,000. A student loan fund is also available from SLA. Applications are due on February 1, and should be directed to the Chairman, Scholarship and Student Loan Fund Committee, Special Libraries Association, 31 East 10th St., New York 10003.

UNIVERSITY OF SOUTHERN CALIFORNIA's department of cinema has received a grant of $112,586 from the U.S. Office of Education, for a two-year study of the feasibility of cataloging audio-visual materials in eight southern California counties by automation.

The UNIVERSITY OF CHICAGO graduate library school offers fifteen fellowships and scholarships for 1965/66, in amounts up to
$4,000. In addition, predoctoral and postdoctoral training stipends for medical librarianship may be offered. Interested applicants should write to the Dean of Students, Graduate Library School, University of Chicago, Chicago 60637. Deadline is February 1.

A gift in excess of $1,000,000 has been announced by Boston University for its new central library. The new facility will be named Mugar library, in honor of the parents of the donor, Stephen P. Mugar.

St. John’s Abbey and University, Collegeville, Minn., will begin the first phase of a long-range program to microfilm manuscripts of European and Near-East monasteries as a pilot project, financed by a $40,000 grant from the Lewis W. and Maud Hill Foundation of St. Paul.

Syracuse University has been awarded a grant of $249,120 from the Department of Health, Education, and Welfare to set up a model information center for adult education. Core of the program will be the university’s library of professional materials.

The Center for Documentation and Communication Research, at Western Reserve’s school of library science, has received $111,908 to further its development of a documentation research facility for the health sciences, supported by the National Institutes of Health, for testing and evaluating information retrieval systems.

BUILDINGS

The University of California, Santa Barbara, is developing working drawings for the third unit of the library, examining working drawings for the arts branch, and writing a program for the sciences-engineering branch. Unit 3 is expected to be completed in 1967, and also will house sciences-engineering operations until that building is completed. The arts branch is scheduled for completion in 1968.

Grossmont Junior College (Calif.) occupied a new library building in October. Shelving for thirty thousand volumes is immediately available, and expansion to seventy thousand volumes is possible. Five hundred students can be accommodated in reading and study areas, and in a listening library with 115 stations for headphone listening.

Oceanside-Carlsbad College (Calif.) library scheduled its new library building for occupancy in November. Present volume capacity is eighteen thousand with later expansion for twenty-five thousand. Seating is provided for 150 students.

Palomar College (Calif.) started construction in December on a library addition to provide 2,300 sq. ft. for stacks and 2,700 sq. ft. for seating. Study carrels are planned for the reading area, and the new stacks will house a periodical department.

San Diego Mesa County College (Calif.) opened a new library building in May. Fifty thousand volumes may eventually be shelved in the library; 252 seats in the reading room and 23 study carrels are provided.

Southwestern College (Calif.) has provided 22,000 sq. ft. for its library, plus a mezzanine with an additional 7,100 sq. ft. There is shelving for twenty-five thousand volumes, which may be expanded to accommodate eighty thousand. The reading area seats 210 students, and extra seating is available in the reference room; there is a listening room with fifty stations, and individual study carrels.

Stanford University planned to break ground for its new undergraduate library in November to provide reading and working areas for seventeen hundred students and shelving for nearly one hundred fifty thousand volumes. Major financing for the structure will be provided by anonymous donors.

An addition to the Wilbur Cross library at University of Connecticut was dedicated on October 16. Capacity of the expanded building is now a half-million volumes, and it will seat twelve hundred readers. Working space for sixty staff members has been provided.

Illinois Wesleyan University has started campaigning for a new library building to house the current collection and provide for future expansion of some 50 per cent; seat about seven hundred students; and house A-V materials and archives. Cost of the projected divisionally-arranged library is estimated at $1,000,000.
Bemidji State College (Minn.) broke ground for a new library building to accommodate 750 students and one hundred thousand volumes on October 8. The $937,000 structure will triple the present library facilities of the college.

St. John's University, Collegeville, Minn., broke ground in July for a library building to house four hundred fifty thousand volumes, seating for 620 students, and 150 study carrels. The $1,772,000 structure is planned for completion in September 1965.

Plymouth State College of the University of New Hampshire has opened a new $600,000 library to house a book collection of some sixty-five thousand volumes.

Eastern Baptist College, St. Davids, Pa., dedicated its new library on October 3.

Brown University, Providence, R.I., dedicated its John D. Rockefeller, Jr., library on November 16.

University of Houston (Tex.) has approved preliminary plans for an addition to more than double present library capacity. Construction will start early this year; cost is estimated at $2,500,000.

University of Toronto opened its college library on October 5. Approximately three hundred fifty readers can be accommodated by study carrels and seating in reading and reference rooms and seven small study rooms. Capacity of the stack is forty thousand volumes. Space has been provided for the college archives.

Miscellany

Evaluating Document Retrieval Systems will be the subject of a one-week course offered by the Center for Information Resources, Washington, D.C. during three successive weeks in March.

Florida State University has announced its second Library History Seminar in Tallahassee, March 4-6. Emphasis will be on sources and methods of historical study. The seminar is sponsored by Florida State's library school, history department, and Strozier library, and by the American Library History Round Table. Further information may be obtained from Dr. Louis Shores, Library School, Florida State University, Tallahassee, Fla.

The Translations Center of the Special Libraries Association has almost one hundred thousand scientific and technical translations on deposit, and information on the availability of many more. SLA suggests that when a translation is needed, a telephone call to 312-225-2520, or TWX 312-431-1758 may determine if and where the translation may be obtained. Contribution of translations, which makes possible the center's services, may be made as a deposit, a loan to be photocopied, or to advise of availability, for referral by the center. The SLA Translations Center, John Crerar Library, 35 West 33rd St., Chicago 61606 will be happy to receive deposits.

Vanderbilt University, Nashville, Tenn., has made a special appropriation of $200,000 to the Joint University libraries for the purchase of retrospective books and journals during 1965.

Queen's University, school of library studies, Belfast, Ireland, is one step nearer establishment with the appointment of two lecturers and an assistant lecturer as its full-time teaching staff. P. Havard-Williams is director of the school, and continues as university librarian.

University of California, San Diego, has published a report of its feasibility study of computer control of periodicals. Final Report of Serials Computer Project, May 1964, University Library and Computer Center (2091, processed) is available from the university library, La Jolla.

Medical Subject Headings (MeSH), the cross reference guide to Index Medicus, has been revised and will be published by the National Library of Medicine as Part II of the Index for January 1965. Single copies also are available at $2.50.

The Eighth Annual report of the Council on Library Resources outlines thirty-nine projects for which CLR appropriated $1,037,948 during 1963/64. Twenty-eight new projects and eleven continuing programs were supported by grants during the period covered by the report.

Proceedings of the Airlie Conference in May 1963, sponsored by the Library of
Congress, National Science Foundation, and Council on Library Resources has been published by LC. *Libraries and Automation* reviews technical developments, discusses them as they affect specific library problems, and attempts to bridge the communications barrier between libraries and technicians. The illustrated publication is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for $2.75 per copy.

LESLIE POSTE, coordinator of graduate library programs at State University College, Geneseo, and Major in the U.S. Army Reserve has completed a text for publication by the U.S. Army Civil Affairs School, Fort Gordon, Ga., covering the development of protection of libraries and archives in Europe during World War II.

A DIRECTORY of individual and institutional members of the Medical Library Association has just been published, and copies may be obtained from the association, 919 N. Michigan Ave., Chicago, Ill. 60611, for $5.

*Library Technology Reports* is a new publication to be issued six times a year, on a subscription basis, by ALA's Library Technology Project. First issue is January 1965. Standard three-ring looseleaf binder format has been used. William P. Cole, formerly administrative assistant to the director of libraries, Washington University, St. Louis, Mo., has been named editor-manager of the publication.

ENOCH PRATT FREE LIBRARY's annual tabulation of "Salary Statistics for Large Public Libraries" for 1964 has recently been published. The compilation lists 1964 salaries and 1963 operational expenditures for 43 larger public libraries in 27 states (including Hawaii) and the District of Columbia on a chart 32" x 37", which may be obtained for $1.15 a copy from Publications, Enoch Pratt Free Library, 400 Cathedral Street, Baltimore, Maryland 21201.

HARVARD UNIVERSITY LIBRARY has issued a preliminary edition of *Catalogue of Persian Books*, an author-title catalog of Persian texts, photographically produced from original cards, in paper covers and "perfect" binding. Some copies are available for sale by the Business Office, Harvard University Library, Cambridge 38, Mass., at $7. each.

*Biological and Agricultural Index*, successor to the *Agricultural Index* began publication this autumn. It is produced by H. W. Wilson Company monthly except September, with bound annual cumulations, and is available on a service basis. For quotation of service basis rate, write to the H. W. Wilson Company, 950 University Ave., Bronx, N.Y. 10452.

BARROW LABORATORY has issued two reports on findings on paper deterioration—*Test Data of Naturally Aged Papers* and *Spray Decidification*—the second and third of the Permanence/Durability of the Book series. They are available only from the W. J. Barrow Laboratory, Virginia Historical Society Building, Box 7311, Richmond, Va. 23221.
North Carolina State in Raleigh announced in September that Isaac T. Littleton has been appointed to the position of acting director of its D. H. Hill library. He succeeds Harlan C. Brown, who after serving in the post for twenty-five years requested that he be relieved. Mr. Brown will continue to serve the library as associate director.

Mr. Littleton originally came to North Carolina State in 1959 to establish the position of head of technical processes. His appointment to this new position was the first step in implementing a long range program of expansion and improvement of the services of the library, resulting from a comprehensive library survey made in 1958. During his first year, he reorganized and streamlined all areas of technical processing, including regrouping of functions and personnel, as well as the installation of improved methods in acquisitions and processing. He conducted professional surveys of the libraries of the Agricultural and Technical College at Greensboro, and of the Gaston Technical Institute, a branch of North Carolina State at Gastonia. In recognition of his skills as an organizer and his ability as administrator, he was appointed assistant director in 1960. Since that time he has completed all class and residence requirements at the University of Illinois for his doctorate in library science.

A native of Tennessee, Mr. Littleton received his AB at the University of North Carolina. Following his graduation he served in the Navy as Lieutenant (jg) in the Pacific area. Upon his release from military service he worked for two years with the Veterans Administration and also taught courses in general psychology at the University of Tennessee. In 1948 he decided to continue his education. Two years later he received his MA with a major in psychology from the University of Tennessee. His interest in library work dated from his undergraduate years at UNC, where he worked as a student assistant in the library. Following his graduation at Tennessee he entered the University of Illinois and completed his work for the MLS in 1951.

Prior to coming to North Carolina State, Mr. Littleton served in various departments of the University of North Carolina library in Chapel Hill, first as head of circulation and later as assistant to the librarian with responsibility for personnel. During his service in Chapel Hill, he established the Interlibrary Center, a statewide service. He has also served as a visiting instructor at the Peabody library school in Nashville, Tennessee.

Mr. Littleton’s interest in administrative planning for university libraries is reflected in several publications in professional journals. His creative approach to over-all administrative programs is evidenced in the development of an acquisitions policy in January 1962 at North Carolina State. He is presently editor of The Checklist of Scientific Journals which includes holdings of the libraries of UNC at Chapel Hill and Greensboro, Duke, North Carolina State, and Chemstrand Research Center, and which is now in process. Printed by computer, it will be kept current by data processing. Mr. Littleton has served as treasurer of the Southeastern Library Association and has held various committee assignments in the North Carolina Library Association and American Library Association. His interests extend to community, civic, and cultural affairs.

Mr. and Mrs. Littleton, the former Dorothy Young, have three children, Sally 12, Thomas 7, and Elizabeth 6.—Lodwick Hartley.
CARL H. SACHTLEBEN became director of libraries at Valparaiso University on September 1, returning to his alma mater after fourteen years of experience and solid accomplishment in other institutions. He returns as a mature and experienced administrator, capable of providing the leadership that will be needed in this progressive and growing institution.

Mr. Sachtleben received his AB degree from Valparaiso in 1941. He immediately entered service with the U.S. Army in which he attained the rank of captain. (He currently holds the rank of major in the U.S. army reserve.) After military service, he earned the BS in LS degree from Western Reserve University in 1947, and engaged in further study at the graduate library school, University of Chicago during 1948-50. Washington University in Saint Louis awarded him an MA in 1953.

Mr. Sachtleben's first library position was at Valparaiso where he served as assistant librarian from 1946 to 1950. He then came to Saint Louis to become librarian of the Lutheran high school which position he held through 1957. During this period he was able to give part-time assistance at the Saint Louis county library. In 1958 he became circulation librarian at Saint Louis University.

At this time the opening of the Pius XII memorial library was but a year away. Mr. Sachtleben quickly became invaluable in the planning for necessary staff reorganization, new and enlarged operations, and moving. After the building was open he was advanced to the new position of supervisor of readers services, where his abilities, imagination, and industry helped ease the hectic period in a new building. In 1962 he was promoted again to a new position, assistant to the director of libraries, where he worked on special studies and projects, as well as general administrative problems.

Carl Sachtleben has been a very active participant in local, state, regional, and national professional groups. He has served as president of the Greater Saint Louis Library Club, convention chairman for the Missouri-Illinois Library Association convention in 1960, editor of the Missouri Library Association Quarterly, 1959-1964, and as a committee member or program participant with several other groups. He has also found time to teach some library science courses at Washington University.

Missourians have already felt the loss of Mr. Sachtleben, but not nearly so much as we at Saint Louis University. Valparaiso University can with justification expect great things of its new Librarian.—James V. Jones.

APPOINTMENTS

G. T. ALLEY has been appointed national librarian of New Zealand.

ANDREW D. ARMITAGE was named reference librarian of University of Denver on July 1.

MARY ARMOUR is assistant cataloger in Brookings, S. Dak., College library.

CARROLL M. BAKER is now supervisor of technical services at San Diego State College library.

JAMES BARDIN is assistant reference librarian in charge of archives at Pratt Institute.

JOANNA W. BARSNESS is now in the cataloging department of Wisconsin State University library, Whitewater.

REXFORD BECKHAM has been named to the position of assistant director of libraries for technical services, Ohio State University, Columbus.

J. TERRY BENDER has been appointed rare book librarian at Syracuse University.

DONALD V. BLACK is head of technical processes for University of California library, Santa Cruz.

ANNE BLATT has joined the staff of the reserve room in City College library, New York.

WARREN N. BOES is the newly appointed assistant director of libraries, Syracuse University.

PAUL BONNET has been appointed to the staff of the college library, UCLA.

LOUISE BOWERS is the new head of circulation at Schaffner library, Northwestern University.
PATRICIA A. BRADDELL joined the staff of Boston University as circulation librarian, Education library.

JUDITH ANN BRANSCOM is curriculum materials cataloger and reference assistant in the education division, San Diego State College library.

HARLEY BROOKS is the new head of Ohio State University libraries' circulation department.

CATHERINE N. CARPENTER is an assistant catalog librarian at Sacramento State College.

Robert Chatfield is now order librarian in the acquisitions division of Boston University libraries.

MRS. BETTY C. CHEN rejoined the staff of Virginia Polytechnic Institute library on September 1.

TIEH-CHENG CHIN is the new head of the documents department at Arizona State University library.

RALPH J. COFFMAN, Jr., has been appointed librarian in Franklin Institute, Boston.

William L. Cohn has joined the Southern Illinois University library staff at Edwardsville campus, as humanities bibliographer.

WILLIAM P. COLE has been named editor-manager of Library Technology Reports, new publication of the Library Technology Project of ALA. Mr. Cole was administrative assistant to the director of libraries, Washington University, St. Louis.

MRS. KAZUKO M. DAILEY has been appointed to the central serials record division of the City College library, New York.

JOHN DEARDORFF is reference librarian at Ohio State University libraries, Columbus.

Isabelle Galbraith has been named head cataloger at University of Alaska libraries.

MRS. SHELACH GODSOE is a catalog librarian in Boston University libraries.

MARGARET GOOSTRAY has joined the staff of Chenery library, Boston University as reference librarian.

MRS. MARION HANSCOM has been appointed head of acquisitions in Pratt Institute library, Brooklyn.

MRS. GWENDOLYN HEARD is newly appointed to the staff of UCLA’s business administration library.

Sheila Herstein is now a member of the social science division staff of City College library, New York.

RICHARD W. Hlavac has accepted appointment as circulation librarian at University of Otago, Dunedin, New Zealand.

Anne Howard began her duties on September 14 as assistant order librarian at Southern Illinois University libraries, Carbondale.

Cecilia M. Hsi has been appointed cataloger in Northwestern University library.

John Iglar is circulation librarian in University of Chicago libraries.

Robert L. Jacobs is the manager of the center for documentation computer department, Western Reserve University school of library science.

MRS. BEVERLY M. JOHNSON is a bibliographer in the acquisitions department of San Diego State College library.

MRS. DIANA KOTTEN has joined the staff of Sacramento State College library as assistant humanities reference librarian.

Toyo Kawakami has been named associate education librarian in Ohio State University libraries.

Robert E. Kingery has been appointed special assistant to the director, New York public libraries.

MRS. FRANCES KIRSCHENBAUM has been appointed medieval and Renaissance bibliographer for UCLA library.

MRS. JANA KOVTUN has been appointed assistant in the catalog department of University of California general library, Berkeley.

Tillie Krieger became assistant acquisitions librarian at University of Nevada library, Reno.

Arlene Kupis rejoined the staff of MIT
libraries as special assistant for collections in October.

NELLIE G. LARSON has been named chief, special bibliographies section, National Agricultural library’s reference division.

RUTH E. LEEHBOFF has joined the San Diego State College library staff as an assistant catalog librarian.

NANCY Ru-Woei Lin has become a cataloger at City College library, New York.

Mrs. Ruth V. Lovelace has been appointed to the reference staff of University of Washington libraries, Seattle.

Ljubo Lulich has been assigned to coordinate the Department of Agriculture pesticide literature program as head of the pesticide information center, National Agricultural library.

Mrs. Lesley J. McAmis has been appointed documents librarian at San Diego State College library.

Paul McCarthy has been named assistant reader services librarian at University of Alaska libraries.

Mrs. Josephine I. MacLeod joined the Boston University medical library staff on October 1.

Harold R. Malinowsky was appointed science and engineering librarian at University of Denver on September 1.

Edward G. Mapp is now head librarian in New York City Community College, City University of New York, Brooklyn.

Thomas H. P. Marshall is science reference librarian at Arizona State University.

David C. Maslyn has been named assistant archivist at Syracuse University libraries.

Patricia Sue Mersman is working in the undergraduate library at University of Washington, Seattle.

Pauline F. Micciche is now an acquisitions division staff member at University of Washington, Seattle.

John F. Miller has been appointed assistant university librarian in charge of acquisitions at University of Massachusetts, Amherst.

Mrs. Tobi Milonadis has been named to the staff of the University of Notre Dame library.

Patricia J. Moore is assistant social sciences reference librarian at San Diego State College library.

Mrs. Nancy T. Musser is now in the catalog division of University of Washington, Seattle.

Jerold Nelson has been appointed to the position of interlibrary loan librarian at Arizona State University.

Taku Frank Nimura has been promoted to the position of circulation librarian at Sacramento State College.

Ann F. Painter has joined the National Agricultural library staff as assistant for technical services.

B. Blaine Pennington is now administrative assistant to the university librarian, Arizona State University.

Vincent Piccolo has been appointed to the faculty of the State College at Worcester, Mass., and to the staff of the college library.

Richard Ploch is curator of rare books and special collections at Ohio State University libraries.

Mrs. Elizabeth M. Rajec is with the catalog division of City College, New York.

Donald M. Rickerson was named supervisory data systems engineer in the office of the information systems specialist, Library of Congress, on October 26.

Frank Rodgers joins the Pennsylvania State University library on January 1.

Annelle Rosenberg has joined the staff of the biomedical library at UCLA.

Michael Rosenstock has rejoined the UCLA library acquisitions staff.

Joseph A. Rosenthal has been appointed chief of the preparation division in New York public library.

John S. Rundberg is now in the administrative offices, University of Washington, Seattle.

Eugene N. Salmon became humanities reference librarian at Sacramento State College on September 14.

John Sanders is head of the serials department, Arizona State University library.

Madhukara I. Sastri will work on simplification of linguistic structures at the Western Reserve University school of library science center for documentation and communication research.

Morris Schertz is associate university librarian in charge of technical processes at University of Massachusetts library, Amherst.

Mrs. Phyllis M. Simson has been named
to the catalog department staff at University of California general library, Berkeley.

WILLIAM H. SMITH is the new acquisitions librarian at University of Alaska libraries.

XENOPHON P. SMITH has been named head of the loan department, Arizona State University library.

HORIO SOCIANU has been appointed assistant catalog librarian in Pratt Institute library, Brooklyn.

SUSAN SONNET has been named a fellow in City College music library, New York.

MRS. RUTH E. SPEECKER has been promoted to science librarian at Northwestern University libraries.

JOSEPH SPRUG is the new librarian at Loretto Heights (Colo.) College.

MICHELE SULLIVAN joined the staff of Sacramento State College library on September 1 as circulation and interlibrary loan librarian.

WILLIAM THRASHER has been appointed assistant cataloger in the University of Illinois Chicago campus library.

MRS. MARGARET M. TULLEY has joined the cataloging staff of City College library, New York.

TIMOTHY T. S. TUNG is a member of the circulation staff at City College library, New York.

ALLEN B. VEANER has been named chief librarian of the acquisitions division, Stanford University libraries.

ORLIN PETKOW WASILEW has been named director of the Bulgarian National library.

JOHN W. WEIGEL II recently joined the University of Michigan library staff as head of the physics-astronomy and mathematics libraries.

CARL J. WENSCH is head of reader services division of the University of California library, Santa Cruz.

DONALD WILLIAMS was reappointed on Oct. 5 to the staff of University of California general library, Berkeley, in the catalog department.

ROBERT M. WILSON has been named to the newly created post of public information officer at National library of Medicine.

MRS. LINDA WOO is now in the catalog division, University of Washington, Seattle.

BARBARA J. WOOD is now a member of the acquisitions division staff at City College library, New York.

WEN-YU YEN is librarian of East Asian studies at Ohio State University, Columbus.

AI-HWA YOUNG has joined the catalog department of Arizona State University library.

JANET ZIEGLER has accepted appointment at UCLA library in the catalog department.

NECROLOGY

NINA ALMOND, first head librarian of Hoover Institution, Stanford University (from 1921 until she retired in 1947), died October 1.

HELEN FAIRBARN, head of the periodical department at University of Toronto library from 1923 until her retirement in 1936, died on September 7.

WILLIAM ALEXANDER JACKSON, librarian of the Houghton library and professor of bibliography of Harvard University, died on October 18.

MAX LANGHAM, for the past year librarian of Albion (Mich.) College, and from 1958 to 1963 associate librarian and then head librarian at Peru (Neb.) State College, died on September 4.

WILLIAM OWENS, associate librarian emeritus of Stanford University, died on August 25.

RETIREMENTS

MRS. MARJORIE B. AMIS, assistant chief of the serial record division of LC, retired on October 2.

MRS. IRMA BEATIE, circulation librarian at Sacramento State College since 1956, retired on August 25.

MRS. LUCIA BORSKI, for seven years assistant head of the Slavic languages section of LC’s descriptive cataloging division, retired on November 2.

RUDOLPH F. SCHAEFFER retired on October 27 after twelve years with the subject cataloging division of LC.

MRS. THEO SUTTON retired from her position at UCLA as head of the receiving section of the catalog department, on September 30.

FLORENCE TIEMAN, head of Northwestern University’s Schaffner library circulation department, retired at the end of September.
Classified Advertisements

Classified advertising orders and copy, and cancellations, for CRL should be addressed to the Publications Officer, ACRL, 50 East Huron Street, Chicago 60611, and should reach that office before the fifteenth of the month preceding publication of issue desired. Copy received after that time may be held for the next issue.

Rate for classified advertising in CRL is $1.00 per printed line. No additional charge is made for nonmember advertising.

POSITIONS OPEN

HEAD LIBRARIAN AND ASSISTANT LIBRARIAN wanted for Oral Roberts University which opens September 1965 with freshman class and the Graduate School of Theology. Head Librarian at least $10,000 for right person. Assistant Librarian also open from $8,000-$9,000. Master of Library Science required. Fringe benefits additional. Write: Provost, Oral Roberts University, 7777 South Lewis Avenue, Tulsa, Oklahoma 74105.

LYNCHBURG COLLEGE LIBRARY, Lynchburg, Va. Assistant Librarian for four-year, liberal arts, church-related college of 1,000 students and a professional library staff of three, to begin September 1, 1965. Library degree or its near completion required. Usual benefits. Write: Miss Mary H. Bassett, Librarian.

HAMILTON COLLEGE LIBRARY, Clinton, New York, needs an experienced Head Cataloguer. A varied and somewhat demanding job in one of the more pleasant parts of the country. German essential, other modern languages desirable. Usual fringe benefits gilt with faculty housing. Faculty rank equivalent: assistant professor. Write: Walter Pilkington, Hamilton College, Clinton, New York.

ANTIOCH COLLEGE LIBRARY seeks a cataloger to serve as assistant in a two-man department. Position includes some reference work and considerable contact with faculty and students. Relevant experience desirable but not required. Beginning salary range $5,600 to $7,500. Faculty status, extensive fringe benefits, lively academic community. Send letters of application to Paul Bixler, Librarian, Antioch College Library, Yellow Springs, Ohio.

GENERAL ASSISTANT LIBRARIAN—Varied duties include cataloging and reference. Salary depends on qualifications, range $6,500-$7,500, 11 months. Faculty status, tuition exchange, major medical, TIAA. Position open September 1, 1965. Apply: Harris Hauge, Librarian, Monmouth College Library, Mommouth, Illinois.

MEDIUM-SIZED UNIVERSITY in San Antonio requires experienced cataloger for reclassification of circulating collection and cataloging of special collections, particularly Texana. Position carries faculty rank, TIAA, Social Security and Blue Cross. Salary dependent on experience. Write Box 650, CRL, 50 E. Huron St., Chicago 60611.

UNIVERSITY OF NEW MEXICO library. Acquisition Librarian to begin February 1, 1965. Require graduate degree in librarianship and some college or university acquisitions experience. Will direct the department, which now has five assistants plus students. Salary open. Liberal benefits. Catalog Librarian to begin July 1, 1965. Experience as cataloger in college or university library required and graduate degree in librarianship. Will direct the department. Salary depends upon training and experience. Apply to David Otis Kelley, University Librarian, University of New Mexico, Albuquerque.

SPECIAL COLLECTIONS LIBRARIAN needed by Vassar College beginning July 1. Duties include organization, service and selection for very active college archives, rare books and manuscript collections. Salary open depending on experience; liberal fringe benefits including TIAA. Write: Jean H. McFarland, Librarian, Vassar College, Poughkeepsie, N.Y. 12601.

HUNTINGTON LIBRARY has opening for rare book cataloger with M.L.S. and knowledge of Romance languages. Apply to Miss M. J. Bragg, Huntington Library, San Marino, Calif. 91108.
UNIVERSITY OF MASSACHUSETTS LIBRARY. Positions immediately available. Fast growing State University. Tremendous library growth. Automation being studied. Stimulating cultural area with offerings of concerts, theatres, lectures, summer festivals. Salary determined by experience and background with range from $6,000 to $7,500 for (1)(2)(3). Library Science Degree essential. University experience desirable. Liberal fringe benefits including one month’s vacation. (1) Monographs Catalogers. Working knowledge of at least one foreign language (Spanish, Italian or Russian) essential. (2) Serials Cataloger. Working knowledge of at least one major European language essential. (3) Assistant Acquisition Librarian. University experience desirable. (4) Bibliographic searcher. Salary $5,600 to $6,200. Apply: Hugh Montgomery, University Librarian, University of Massachusetts Library, Amherst, Massachusetts 01003.


OHIO. REFERENCE LIBRARIAN. Fast growing, increasingly influential, state-assisted university under extraordinary leadership. Construction on new library building starts in 1965. Open now is a vacancy for a REFERENCE LIBRARIAN. This is one of three professional assistants under an experienced librarian. Preference is for someone with some university reference experience. Planned developments in the new building make supervisory reassignments probable for the right people. Salary is open but is expected to be between $6,000 and $7,200, plus university-paid insurance benefits. Applicants should be emotionally mature people who can get along with others. Write, sending information and references to: Walter W. Wright, Ohio University Library, Athens, Ohio 45701.

UCLA LIBRARY needs experienced cataloger of materials in Arabic, Persian, Turkish. Academic status, good fringe benefits. $7,800 up. Apply to: Miss Page Ackerman, Assistant University Librarian, UCLA, Los Angeles, Calif. 90024.

BOOKS

SEARCH SERVICE: Want Lists solicited and promptly reviewed from stock of over 200,000 scholarly OP’s. Books not on hand actively searched. Specializing in all standard lists. Ira J. Friedman, Inc., Main Street, Port Washington, L.I., N.Y.

BUILDING SPECIAL COLLECTIONS is one of our specialties. Foreign books and periodicals, current and out of print. Albert J. Phiebig, Box 352, White Plains, N.Y.

HARD TO FIND BOOKS located. Thousands on hand. Millions more available thru worldwide contacts. Book Landist, 410% N. Brand, Glendale 3, Calif.

BOOKS FROM USSR in Russian and English. Art, Biology, Chemistry, Education, Engineering, Foreign Relations, Geography, History, Law, Literature (classics and contemporary), Mathematics, Medicine, Music, Philosophy, Physics, Theatre, etc. Russian language study courses. Dictionaries. Records; Ballet, Opera, drama, folk songs, etc. Subs. to magazines accepted. Stop in and browse. Mail orders filled. Free catalogs. Phone CH 2-4500. Write Dept. 250, Four Continent Book Corp., 156 Fifth Ave., N.Y. 10, N.Y., Cor. 20 St.

STANLEY GILMAN, American History, Newspaper History and Out of Print Books. Box 131, Cooper Station, New York 3, N.Y.

OUT-OF-PRINT

COLONIAL BOOK SERVICE—Specialists in supplying the out-of-print books as listed in all library indices. (Granger poetry; Essay and General Literature; Shaw; Standard; Fiction; Biography; Lamont; Speech; etc.) Catalogues on request. Want lists invited. 23 East 4th St., New York 3, N.Y.

PERIODICALS

Expert Service on
MAGAZINE SUBSCRIPTIONS
for
ALL LIBRARIES
☆
Faxon’s Librarians Guide
Available on request
☆
For the very best subscription service ask about our Till Forbidden Automatic Renewal plan.
☆
F. W. FAXON CO., INC.
515-25 Hyde Park Ave., Boston, Mass. 02131
☆
Continuous Service to Libraries Since 1886

OTTO HARRASSOWITZ
Library Agency
WIESBADEN • GERMANY

Direct service
on all German language books and periodicals

Orders and inquiries are invited on both new and out-of-print material

Farmington Plan agent
for West and East Germany

For economy, speed, and accuracy you may rely upon your German agent

OTTO HARRASSOWITZ

THEODORE FRONT
successor to Ernest E. Gottlieb
MUSICAL LITERATURE

New
Out-of-print
Old
Music Editions
Books on Music
Domestic & Imported
Search Service

Catalogues 3 & 4 in preparation.
If not on my mailing list, please ask for copies.

1046 South Holt Avenue
Los Angeles, California 90035

SEE PAGES 4-5
Better Library Furniture?

Of course, it's

STANDARD
LIBRARY
FURNITURE

Whatever the academic level, Standard Library Furniture makes libraries uniquely more comfortable.

For free planning guides, write to Dept. B-13

Available to colleges and universities through E & I under contract No. 39.

STANDARD WOOD PRODUCTS CORP.
LIBRARY DIVISION 10 Columbus Circle, New York 19, N. Y.
New filing convenience for records, filmstrips, tapes and films

Discabinet for LP Records
Locate any album in seconds. Each album has its own pocket which is numbered to match the album. Albums are always protected in storage and slide out for easy removal from pocket. Two sets of gummed numbers included. Cabinet is 13½" wide, 15½" high, 14" deep. Made of 20 gauge steel with reinforced sides and partitions. Crackle gray baked enamel finish. Capacity: 60 12" L.P. Records and their jackets.
Write for prices.

Filmstrip Cabinet
Ideal for the growing Filmstrip Library. Equipped with 2 drawers. Each drawer has 49 individual filmstrip can compartments. Total capacity: 98 filmstrips (35mm). Two sets of gummed numbers for numbering cans and compartments included. Units interlock with themselves or with Discabinets so they can be added to as your collection increases. Sturdy steel cabinet is 13½" wide, 4½" high, 14" deep. Crackle gray baked enamel finish.
Write for prices.

Combination Disc and Tape Cabinet
First compartment holds 30 individual records. Second compartment holds 5 record albums or 25 records in LP jackets. Third compartment holds 6 tape boxes for 5" reels. Fourth compartment holds 6 tape boxes for 7" reels. Two sets of gummed numbers included for numbering record albums, records, pockets and tape boxes. Sturdy steel cabinet is 13½" wide, 15½" high, 14" deep.
Write for prices.

Get the facts about Audio-Visual filing efficiency. Write today for Demco's new 6 page Audio-Visual Equipment Folder. Contains photographs, prices and ordering information for:
- 6 Drawer Filmstrip Cabinet
- Combination Filmstrip and Record Storage Cabinet
- Discabinet with Door
- Double Door Tape Cabinets
- Audio-Visual "Reelmobiles"
- Mobile Audio-Visual Center
- Film Storage Cabinets
- Discmobile
- Microfilm Cabinet

DEMCO LIBRARY SUPPLIES • Box 1488 Madison, Wis. • Box 852 Fresno, Calif. • Box 4231 Hamden, Conn.
GAYLORD PLASTIC BOOK SUPPORTS make good libraries look even better...

As functional as they are handsome, Gaylord plastic book supports gracefully call attention to books on display. On the shelf, they have the added practical advantage of smooth molded lines, no sharp edges.

In two sizes and five attractive colors, they are remarkably sturdy yet light weight. From $4.25 a dozen plain base; cork or urethane base slightly higher.

Please write for full details and quantity prices.

Gaylord Bros., Inc.
SYRACUSE, N.Y.  STOCKTON, CALIF.  SCHOOL LIBRARY SUPPLIES
Close your eyes. Imagine you're creating a weekly current scientific awareness service to alert you to only those particular articles you are interested in. You think to yourself this is a good idea, but not possible.

Now open your eyes. There is such a service available, starting January 1965. It's called ASCA. It's custom designed for each individual scientist everywhere in the world and in every discipline. And it costs less than $2.00 per week for your own individual computer printout. Interested? Want details? Write for information. You'll be glad you did.

Please send information on ASCA.

Name_____________________________
Title____________________________
Organization_______________________
Address____________________________
City_______________________________
State_______________________________

INSTITUTE FOR SCIENTIFIC INFORMATION
325 Chestnut Street Philadelphia Pa 19106
THREE INDISPENSABLE REPRINTS

GRATIUS, Ortwin. Fasciculus rerum expetendarum et fugiendarum. Lon­
don, 1690.
With new introduction and bibliographical notes by Prof. V. Mudroch, 
Carleton University, Ottawa.
Indispensable for the history of the Reformation and unorthodox opinion. 
This second edition, last and best, much larger than first of 1535, was edited 
by Edward Browne and contains hundreds of texts of Hus, Wyclif, Widea­
ford, several Waldensians, Erasmus, Hütten, Marsilius of Padua, Heym­
borg, Ryd., etc.—a rich panorama of English and continental reform move­
ments. Wing G 1583.
Prof. Mudroch’s introduction and notes survey these sources and the 
latest literature.
Before March 15, 1965: $135.00
After: 155.00

Large folio. 840 pp. Cloth.
The most valuable bibliographical and reference tool for early English, 
Irish, Scottish and Norman authors and sources to 1700. Including his­
torical and literary works, it gives biographies, list of MSS and printed 
works, critical bibliographies and additional references, up to 1700. Es­
sential for medieval Renaissance and early modern periods. The only edi­
tion.
T. Hardy, Descriptive Cat. I, xli: “Still the highest authority to which 
the enquirer can refer. Invaluable.”
$65.00

DUPUY, P. Histoire du differend d’entre le Pape Boniface VIII et Philippes 
le Bel Roy de France. Paris, 1655.
Large folio. 788 pp. Cloth.
The largest collection of documents, most printed nowhere else, for the 
conflict between France and the Papacy—a quarrel which ended in the sep­
oration of power into two spheres and “a break in medieval ideas too pro­
found ever to repair.”
Molinier, Sources, no. 2958: “Recueil de premier ordre.”
Paetow (1931), p. 298.
$65.00

AUDAX PRESS, Dept. C
2039 E. Juanita St. Tucson, Arizona
A REQUISITE

for every library serving research chemists

ENCYCLOPAEDIA CHIMICA INTERNATIONALIS 1963

(Cumulative Index Chemicus)

extending ECI's coverage of the world chemical literature to December 1963

NO SEARCH IS COMPLETE WITHOUT CHECKING THE LATEST
ENCYCLOPAEDIA CHIMICA INTERNATIONALIS

ECI 1963 contains structural diagrams of over 77,000 newly synthesized or isolated chemical compounds. Compiled in 3 handsomely bound volumes. A RECENT STUDY SHOWS THAT ECI REPORTS HUNDREDS OF NEW CHEMICAL COMPOUNDS NOT INDEXED BY ANY OTHER CHEMICAL ABSTRACTING SERVICE. ECI 1963 provides graphic abstracts of 8,517 articles, proofed and verified by original authors to assure accuracy and completeness.

PLUS RAPID-SEARCH INDEXES prepared on high speed, electronic computers

- MOLECULAR FORMULA INDEX locates a specific formula quickly
- JOURNAL INDEX provides complete source publication data for all articles
- AUTHOR INDEX lists alphabetically all authors of every paper processed
- ROTAFORM INDEX offers a unique approach to the generic retrieval of chemical classes with entry points from every element

THERE IS NO COMPARABLE REFERENCE SOURCE OF CHEMICAL INFORMATION ANYWHERE

The complete 13-volume ECI now contains well over 325,000 chemical compounds. Bring your set up-to-date—add the 3-volume Encyclopaedia Chimica Internationalis 1963.

Please send me details on

☐ 3-volume ECI 1963
☐ 4-volume 1962-63 ECI
☐ 6-volume 1960-61-62 ECI

Name ____________________________ Organization ____________________________

Address ____________________________

City ____________________________ State ____________________________

INSTITUTE FOR SCIENTIFIC INFORMATION

825 Chestnut Street Philadelphia Pa. 19106
ATTENTION LIBRARIANS!!

Important Russian Instrumentation Journals

Available in Cover-to-Cover Translation

These four scientific and engineering journals have been judged by professionals in the instrumentation field to be the outstanding Soviet publications in instrumentation.

Automation and Remote Control
Monthly; mathematically oriented, emphasizing stability and optimization of automatic control systems.

Instruments and Experimental Techniques
Bi-monthly; devoted primarily to nuclear research and associated instrumentation.

Measurement Techniques
Monthly; covers measurement of physical variables plus test and calibration of measurement and recording instruments.

Industrial Laboratory
Monthly; devoted to methods of chemical analysis, physical investigation, and mechanical test.

Subscriptions:

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Other Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARC</td>
<td>$45.00</td>
<td>$60.00</td>
</tr>
<tr>
<td>IET</td>
<td>35.00</td>
<td>48.00</td>
</tr>
<tr>
<td>MT</td>
<td>25.00</td>
<td>35.00</td>
</tr>
<tr>
<td>IL</td>
<td>45.00</td>
<td>60.00</td>
</tr>
<tr>
<td>Combination</td>
<td>$135.00</td>
<td>$183.00</td>
</tr>
</tbody>
</table>

Back Issues:
ARC: from 1957, except 1960
IET: from 1958, except 1961
MT: from 1958
IL: from 1958

Complete volumes of back issues will be sold at the same price as current volumes.
Sample copies are available to librarians writing on organizational letterhead.

Instrument Society of America, Department R3
530 William Penn Place, Pittsburgh, Pennsylvania 15219
When you select your microfiche supplier compare...

**Experience**... only the Microcard® Corporation has the depth of experience you seek...serving as prime microfiche systems supplier to A.E.C., O.T.S., the Oak Ridge National Laboratory and the GE Apollo Program of N.A.S.A.

**Equipment**... only Microcard has developed the one “step and repeat”, high output camera to film your technical material fast, at lowest cost and highest quality, and at the U.S. Gov't. format and size of 105mm x 148mm.

And only Microcard gives you a special trial offer of 20 technical reports reproduced on microfiche* for only $100!

*You'll receive Microcard's "Master Camera Negative" allowing you to reproduce your own copies of these reports in any quantity.

Interested? Just drop us a line... no cost or obligation. We'll send you a complete Information Kit giving you all the facts.
A Primer on the HOLY SPIRIT . . .

THE HOLY SPIRIT AND YOU
$2.75

Basic Hymnody . . .

THE ANATOMY OF HYMNODY
Austin C. Lovelace. A study of poetic forms as they are related to the expression of feeling and mood in hymn texts. A simple and basic discussion which both the layman and the specialist in hymnology can understand. 112 pages.
$2.75

A Handbook for Teachers and Parents . . .

MUSIC ACTIVITIES FOR RETARDED CHILDREN
Paper, $2.95

How long-range Urban and Church Planning Interact . . .

PLANNING FOR PROTESTANTISM IN URBAN AMERICA
Lyle E. Schaller. A professional city-planner-turned-minister applies his experience to planning urban Protestant churches. He assesses the effect of forces such as government policies, population trends, and urban renewal. 224 pages.
$4.50

Practical Information for the Composer . . .

MUSIC COMPOSITION AND ARRANGING
Samuel Walter. Practical information and step-by-step instruction for the church and public school musician desiring to arrange and compose his own music. Includes over 60 specific examples of music, extensive bibliography. 144 pages.
$4.95

What Biblical Archaeology Is and Does . . .

ARCHAEOLOGY IN BIBLICAL RESEARCH
Walter G. Williams. Orientation in the fields of general and biblical archeology with specific application of archaeology to Bible study. Covers types of research, methods used, problems and challenges. 244 pages.
Illustrated, $4.75

ABINGDON PRESS
New York, N.Y. • Nashville, Tennessee
Now Available

1964 WESCON Technical Papers

Volume 8 Complete Set—7 Parts—71 Papers $38.50

Part 1 Antennas and Microwaves Sessions # 1, 6, 16 $6.50
Part 2 Circuit Theory Sessions # 2, 18 $4.00
Part 3 Electron Devices Component Parts Sessions # 7, 12, 17 $4.00
Part 4 Automatic Control Electronic Computers, Information Theory Sessions # 3, 4, 8, 13 $8.50
Part 5 Communications Space Electronic Sessions # 11, 19 $4.00
Part 6 Instrumentation Session # 14 $2.50
Part 7 Power Sessions C, 5, 9, 10, 15, 20 $9.00

Exclusive Distributor:

WESTERN PERIODICALS CO.
13000 Raymer Street, North Hollywood, California

Out-of-Print ECONOMICS BOOKS

Selection of books to be reprinted made from Series II of Economics Library Selections, quarterly bibliography published by Johns Hopkins University, 1954-1962. Dr. Mark Perlman, Professor of Economics, University of Pittsburgh, Head of the Project for Economics Library Selections, worked with us to make selections for this reprint program.

All books offered are out of print and not available through other sources.


MICRO PHOTO DIVISION
Bell & Howell Company
1700 SHAW AVENUE
CLEVELAND, OHIO 44112

New DUOPAGE* book reprinting program makes available important reference books necessary for basic economics collections.

*DUOPAGE system for reproducing out-of-print books described in catalog listing DUOPAGE books available. Write for copy.
NO STACK CLAUSTROPHOBIA HERE!

Aetnastak does not take all the credit for this airy, inviting library vista at Montclair State College. It's the result of intelligent planning by librarians and architects who selected Aetnastak.

Looking for library equipment appropriate to the best in contemporary interiors? Investigate Aetnastak, famous for the "Uniframe" principle of construction, which adds durability and convenient functioning to good looks.

Write for new color brochure, Department AL

AETNA STEEL PRODUCTS CORPORATION
730 Fifth Avenue, New York 19, N. Y.

AETNASTAK the new standard of excellence in library equipment.
Perhaps the most interesting aspect of the Harvard University Library today is that, in this largest university library, primary emphasis is placed upon a regard for the individual — an emphasis which extends alike to staff, faculty, students, and general users. As the library's director, Paul Buck was responsible for this attitude.

Analyzing the crucial challenges facing the university library — from its role in teaching and research to its relations with historians and businessmen, from the use of automation to Harvard's remarkably successful "library intern" plan — Paul Buck provides what is in effect a case history of how one major university library is meeting its responsibilities to its staff and its constituency. Belknap Press Book, $3.95

INTRODUCTORY BIBLIOGRAPHY TO THE STUDY OF HUNGARIAN LITERATURE

By Albert Tezla. A bibliography of 1295 sources, including a description of 72 relevant periodicals and the most useful English-Hungarian dictionaries. Gives locations of all cited works in 112 American and 28 European libraries. $10.00

Ask your bookseller.
NEW—on Microcard and microfiche

American Imprints Inventory, Nos. 1-20, 23-27, 31-32, 36, 38-42, 44-45, 52

American Imprints Inventory (Catholic University). Dissertations prepared by students at Catholic University which carry on the work begun by the American Imprints Inventory

Annalen der Physik. Series I-V (1790-1944)


Nature. Vols. 1-50 (1869-93)


* Price includes a Micro III Microcard Reader at no additional cost.
GUIDE TO RUSSIAN REFERENCE BOOKS
Volume II: History, Auxiliary Historical Sciences, Ethnography, and Geography

By Karol Maichel, edited by J. S. G. Simmons. Designed to save the scholar of Russian or Soviet history precious time formerly wasted in the process of identifying and locating wanted documentation, it lists and annotates 1560 reference tools relating to Soviet and Russian history in general as well as to the histories of various specific events or geographical areas. It also lists Russian writings on ancient, medieval, Byzantine, and modern world history as well as works on Africa, the Americas, Asia, and Europe. Under auxiliary historical sciences, some topics covered are archeology, archives, chronology, genealogy, heraldry, historiography, numismatics, paleology and epigraphy. There are also separate sections devoted to ethnography and geography. Volume I of this set (published in 1962) is devoted to general reference books. Volumes III–V will deal with political science, humanities, and science and technology, respectively, and Volume VI will be a cumulative index. Published by the Hoover Institution. $12.00

NSDAP HAUPTARCHIV
Guide to the Hoover Institution Microfilm Collection

Compiled by Grete Heinz and Agnes F. Peterson. The German Nazi Party-known to historians as the NSDAP (Nationalsozialistische Deutsche Arbeiterpartei)—established in 1934 a central archive to preserve for posterity the records of its own background, history, and organization, as well as to document the activities of its political opponents. The present work is a guide and index to this archive, the microfilms of which are held at the Hoover Institution in some 240,000 frames. Published by the Hoover Institution. $4.50

GERMAN AFRICA
A Select Annotated Bibliography

By Jon Bridgman and David E. Clarke. This bibliography forms part of a projected series which will also include Hoover Institution's holdings on Belgian, British, French, and Portuguese Africa. About one thousand titles are listed and annotated, covering, besides the general works, German East Africa, German Southwest Africa, Togo and Cameroon, the British Confidential Prints, serials, and newspapers. Published by the Hoover Institution. $3.00

An Annotated Bibliography

By Chun-tu Hsueh. Listing and annotating in detail 1222 items, these two volumes form an indispensable reference work to Chinese language sources on the history and development of the Chinese Communist Party. Arrangement is by subject and each volume is indexed by author and title. The first volume covers the embryonic period, Kuomintang and CCP relations, the reorientation period, the Kiangsi Soviet, the Long March, and the early Yenan period. The second volume lists works pertaining to Mao Tse-tung and the Sino-Japanese War and post-war periods. Published by the Hoover Institution. $2.50, $5.00

• Please order from Publications Department, Box 52, Hoover Institution, Stanford University, Stanford, California 94305 U.S.A.
BIBLIOGRAPHY and LIBRARY SCIENCE

ROBERT L. COLLISON

ENCYCLOPAEDIAS: THEIR HISTORY THROUGHOUT THE AGES

A BIBLIOGRAPHICAL GUIDE WITH EXTENSIVE HISTORICAL NOTES TO THE GENERAL ENCYCLOPEDIAS ISSUED THROUGHOUT THE WORLD FROM 350 B.C. TO THE PRESENT DAY

300 pages Illustrated with plates 1964 $7.50

A bibliographical history of general encyclopedias, written in narrative form, with an index of titles, and containing some 80,000 words.

D. J. FOSKETT

SCIENCE, HUMANISM AND LIBRARIES

246 pages Index 1964 $4.50

RAYMOND IRWIN

THE HERITAGE OF THE ENGLISH LIBRARY

296 pages Index 1964 $5.50

Stechert-Hafner, Inc.

FONDED IN NEW YORK 1872

LONDON / PARIS / STUTTGART / BOGOTA
31 East 10 Street / New York 3, N. Y.