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- Photograph Filing
- Map Cataloging
- On-Line User Survey
- Pakistani Special Libraries

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**LETTERS**

**NTIS Defended**

Perhaps I should welcome Irving M. Klempner’s grouping of Knox-NTIS with the *New York Times,* [“Commentary on Knox, NTIS and Special Libraries,” *Special Libraries* 67 (no. 8): 397–400 (Aug 1976)]. It suggests that the NTIS motto might be “all the technical information you need to know.”

Let me assure *Special Libraries* readers that there was a valid reason for omitting the phrase “and consistent with the objectives of this Act”—brevity. The Congress usually, by such phrases, provides for administrative flexibility in executing their laws in order to allow for the constant adjustment necessary for changing situations.

NTIS does make its basic catalogs, directories, and indexes available free of charge through some 700 U.S. depository libraries—thereby faithfully executing its charge with respect to information “issued primarily for the general benefit of the public.”

Most importantly, Klempner should refer to the past several years’ public hearings before the House Appropriations Subcommittee for Commerce, et al. The interest in and approval of Congress for the steady progress of NTIS towards self-sufficiency is evident. At no time has it been challenged.

None of us in NTIS believes that our acquisitions are as comprehensive as they should be, and we are constantly seeking new sources. However, this policy must be tempered with realism; e.g., it would make no sense to duplicate existing private and public collection efforts. NTIS resources will always be limited, and within those limits we focus on better service to our present customers and greater awareness of NTIS services among potential customers.

Finally, although Mr. Klempner wrongly detects a “note of wistfulness” in my “admission” that NTIS capital costs are still paid by appropriated funds, let me assure your readers that strong pressures are on NTIS to also pay its capital equipment costs from sales income.

William T. Knox  
NTIS  
Washington, D.C. 20004

**Reply**

As in the past, Mr. Knox continues to discover and publicize interpretations of the written word neither conveyed nor implied. I grouped not “Knox-NTIS with the *New York Times,*” but my reading of Knox’s article in *Special Libraries* and my reading of the *New York Times* in order to alert the SLA community to yet another instance of bureaucratic distortion and misinterpretation of federal statutes.

Knox gives “brevity” as the reason for omitting the phrase “and consistent with the objectives of this Act.” A major point of my comments, fully ignored, was that the management philosophy of NTIS disregards, indeed counteracts, the stated and implied congressional intent inherent in that phrase. From an administrative and systems point of view, it should have been obvious to Knox—but apparently is not—that losing sight of an agency’s objectives can have, and in the case of NTIS does have, most serious consequences not only for the SLA community, but for the nation at large.

While choosing to disregard the precise language of the NTIS statute included in my comments, the cited documentation from the Senate committee report and *Congressional Record,* Mr. Knox resorts instead to some unstated and patently nonexistent congressional mandate labeled “administrative flexibility” as license for his unique and personal interpretation of the meaning of the NTIS legislation.

NTIS’ de facto GPO depository library distribution was not questioned. What was questioned was grudging distribution, and past NTIS challenges of GPO distribution. A ruling of the Comptroller General was recently obtained to have GRA/GRI considered of sufficient widespread public interest to warrant distribution under the GPO Depository Library Act. The current attempt by NTIS to copyright selected government documents is a further indication of the overall agency pre-occupation with the pursuit of narrow, income-producing objectives rather than seeking to attain national dissemination of federally financed and generated information.

Noting NTIS’ progress toward self-sufficiency and that such progress has not been challenged in the past by congressional appropriations committees, Knox conveniently ignores the difference between progress toward self-sufficiency and the categorical and unequivocal demand that NTIS become, in very short order, a completely self-sustaining agency. Moreover, why should a congressional appropriations committee challenge NTIS’ quest for self-sufficiency? Is not a primary responsibility of the director of NTIS to be aware of the fundamental objectives of his agency and to resist “pressures,” con-
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Irving M. Klemperer
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20A SPECIAL LIBRARIES
Microfilm Generation and Polarity Terminology

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A review of the terminology used in producing and using duplicate and master microforms is provided. A system is described for identifying generation and polarity. Source document microfilming and computer output microfilming (COM) are discussed. Examples are given of four types of duplicating film and their polarity. A glossary is included.

ARE YOU confused by the terms "polarity," "generation," "positive-appearing," "negative-appearing," "direct duplicating," "image reversing," and the like? This article is an attempt to eliminate the confusion. It will confine itself to practices and technology in common use and will not cover advanced technology still under development or special laboratory processes.

Microfilm may be duplicated through several generations, and both the camera microfilm and duplicates may have either positive- or negative-appearing images in any generation. The polarity of microfilm is determined by its appearance and not by the material from which it was made. The user's system and application should determine the number of generations required and the polarity of the distribution and user copies.

A simple system for identifying generation and polarity is recommended. Use two characters: a number for generation, and the letters "P" and "N" for polarity. First generation negative-appearing microfilm is designated 1N, second generation positive-appearing microfilm is designated 2P, and so forth. Figures 1, 2, and 3 illustrate the system.

Original Material

Most business documents consist of dark text on a light background, exactly like this page. This is a positive-appearing image. A negative-appearing image is just the opposite—light text on a dark background. Microfilming of paper documents will be referred to as source document microfilming.

In most computer output microfilming (COM), character display is accomplished by energizing the phosphor of the cathode ray tube (CRT) in the shape of the desired characters. Therefore, illuminated or light characters appear against a dark background. This is a negative-appearing image. COM recorders using light-emitting diode (LED) systems operate similarly. In COM units employing electron beam recording (EBR) or laser beam recording (LBR) techniques, there is no original as such.

Camera Microfilm

Today there is mainly one type of microfilm used in the camera for source document microfilming, and that is silver halide, image reversing film, generally referred to as "silver" microfilm. Image reversing film produces, after normal processing, a negative-appearing image when the source document is positive-appearing. This microfilm is designated
1N since it is first generation and is negative-appearing.

In COM systems using CRT or LED recording techniques, the film used is also the silver halide type; however, depending on the specific emulsion and method of processing, the microfilm produced may be positive or negative-appearing even though the image on the CRT or LED is always negative-appearing. The microfilm should be designated 1N or 1P, whichever is appropriate.

COM systems using EBR and LBR techniques use dry silver microfilm. Dry silver microfilm is a non-gelatin film which is developed by application of heat. The EBR with dry silver film produces a positive-appearing image and should be designated 1P; the LBR system also with dry silver film produces a negative-appearing image and should be designated 1N.

Duplicating Films

There are four types of duplicating film available. Silver, image reversing film will change the polarity of the image from which it is duplicated. A negative-appearing image will be produced from a positive-appearing image, and a positive-appearing image will be produced from a negative-appearing image. Silver, direct duplicating film will retain the same polarity as the image from which it is duplicated. A negative-appearing image will be produced from a positive-appearing image, and a positive-appearing image will be produced from a negative-appearing image. Diazo film will retain the same polarity as the image from which it is duplicated, negative to negative and positive to positive. Vesicular film will change the polarity of the image from which it is duplicated, negative to positive and positive to negative.

By using these duplicating processes, duplicate microfilm may be made through several generations and the distribution copies may be positive- or negative-appearing as the system dictates. In some high volume systems, an intermediate or printing master may be used to make a
large number of distribution copies. The creation of the camera microfilm, intermediates, and distribution copies is done in a production shop. Reference copies are duplicates made from the distribution copy at the user's location and are considered non-returnable.

Glossary

**camera microfilm.** First generation microfilm; also called the “master film.”

**conventional processing.** Conventional processing of silver halide films denoting a processing sequence of development, fix (mobilath), wash, and dry. For diazo film, it denotes processing in an alkaline (ammonia) environment. For vesicular and dry silver films, it denotes processing by heat.

**diazo film.** A slow print film, sensitized by means of diazonium salts, which, subsequent to exposure to high intensity, radiant energy light in the blue to ultraviolet region of the spectrum, and development in an alkaline (ammonia) environment, forms a dye image. Some diazo films are developed by heat.
reversal processing of silver halide films using a processing sequence of development, bleach, clear, wash, and dry. This produces a direct image reproduction.

image reversing film. A film handled with conventional processing that will reverse the polarity and tonal scale of the previous generation or the original material; that is, whites from blacks, blacks from whites, negatives from positives, and positives from negatives.

intermediate. A microfilm or other reproducible used to make distribution copies; microfilm intermediates are usually made from camera microfilm.

N. The symbol for negative-appearing microfilm.

negative-appearing image. An image in which lines and characters appear light against a dark background.

odd generation. The first, third, fifth, etc., generations are odd.

P. The symbol for positive-appearing microfilm.

polarity. A word used to indicate the state or retention of the dark-to-light relationship of an image, i.e., a first generation negative to a second generation positive indicates a polarity change, while a first generation negative to a second generation negative indicates the polarity is retained.

positive-appearing image. An image in which lines and characters appear dark against a light background.

reference copies. Microfilm copies, usually of the second or higher generation, made from camera microfilm, intermediates, or distribution copies; reference copies are usually expendable and are sometimes called "non-returnable" or "throw-away" copies.

reversal film. A film which, after exposure, is specially processed to produce a polarity other than that which is normally obtained.

reversal processing. A photographic process used for silver halide film in which an image is produced by secondary development of the silver halide grains which remain after the latent image has been changed to silver by primary development and destroyed by chemical bleach. In this process the polarity and tonal scale of the previous generation or the original material is retained; that is, tone for tone, black for black, white for white, negative for negative, or positive for positive.

silver film. A film which is coated with a silver halide emulsion.

silver halide. A compound of silver and one of the following elements known as halogens: chlorine, bromine, iodine.

vesicular film. Film which has the light sensitive element suspended in a plastic layer and which, upon exposure, creates strains within the layer in the form of a latent image. The strains are released and the latent image made visible by heating the plastic layer. The image becomes fixed when the layer cools.

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A Classification Schedule for Photographs
By Process or Apparatus

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A classification schedule designed primarily for libraries that serve students
and teachers of photography—photography as a mechanical or chemical
process—is described. Headings designate photographic processes or apparatus, cor-
relate with the lesson plan of a course in
beginning photography, and are hierar-
chically structured. Notation is alphanu-
meric with decimal expansion.

Traditionally, classification
schedules or filing systems for
photographs attend to subject, pro-
venance, photographer, date, place, and, per-
haps, job assignment. These schedules
serve collections in archives or com-
mercial houses or art and architecture li-
braries (1).

Such schedules ignore the needs of li-
braries that serve instructors and students
of photography—photography as a
mechanical and chemical process. These
patrons wish to see photographs that
saliently illustrate the consequences of, or
the apparatus necessary for, the
photographic process at its most strategic
stages. Librarians serving these patrons
need a classification schedule that ad-
resses itself with simplicity to the
photographic process and to photographic
apparatus, uses language traditional to the
medium, proceeds according to a tradi-
tional plan, and facilitates efficient search-
ing through the collection.

This paper describes a classification
schedule that addresses these needs (2).
The schedule allows the filing of
photographs under headings that
designate photographic processes or appa-
ратус. The notational scheme permits
easy expansion of the schedule and
facilitates efficient searching through the
files of photographs.

Main headings in the schedule proceed
from Cameras to Camera accessories to
Camera lenses to Films, Black and white,
to Films, Color, to Exposure control to
Filters to Flash to Flood lighting to
Natural light to Development process, the
Negative, to Enlargers to Printing to Dry
mounting.

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This progression of headings correlates with the lesson plan of a course in beginning photography and in effect organizes a photographic collection into a visual textbook that complements such a course. A correlation between headings and a traditional course plan should be useful to libraries which support a curriculum in photography. The organization of the schedule easily allows patrons to see what material is available for illustrating most aspects of a photography course. Also, this organization minimizes the need for see references and an index to the schedule. If patrons are familiar with a traditional course plan, they should be able to locate a heading even if they do not know its exact wording. However, an index to the schedule may be necessary to assist patrons totally unfamiliar with photography or patrons not attuned to eccentric patterns of instruction.

**Hierarchical classification defines the broad areas within which the patron can fruitfully search for material appropriate to his or her needs.**

Structure and Notation

Headings are hierarchically structured. Photographs, unlike print material, can be perused very quickly, particularly by the trained eye. Hierarchical classification defines the broad areas within which the patron can fruitfully search for material appropriate to his or her needs. Also, hierarchical classification joins together similar aspects of the photographic process or similar kinds of apparatus. Coordinate indexing does not provide this advantage; it facilitates citation browsing, but impedes document browsing. For example, by consulting this hierarchically structured schedule, patrons, if they are interested in photographs or diagrams of focusing systems in cameras, can browse through the entire collection filed under Cameras-Focusing-Systems. With coordinate indexing the patron must first know all the permitted designations for focusing systems in cameras (3).

Unless otherwise indicated, headings in the schedule designate processes and denote photographs that illustrate the effects of these processes. For example, Enlargers-Illumination systems-Condenser denotes photographs processed through this kind of apparatus. So too, Camera lenses-Brands denotes photographs that illustrate the advantages of particular brand-name lenses. However, the schedule recognizes that students need to see photographs or diagrams of apparatus. When a heading leads to such photographs or diagrams, this is indicated in parentheses, e.g., "Cameras-Focusing-Systems (here are classed photographs and diagrams that show focusing systems in cameras)."

Notation is alphanumeric. Numerals appear in decimal order to allow for easy expansion of the schedule as new technological emphasis or patrons' interests direct. For example, this schedule does not include headings for color printing; this process, a textbook in itself, is rarely included in beginning or intermediate courses. If patrons do indicate a strong interest in color printing, then class numbers under Printing can be expanded to include subheadings for color printing. The notational scheme allows patrons to search through the files in the same order as the schedule unfolds and to locate easily all the files subsumed by a main heading or subheading.

Additional References

The schedule offers see and see also references. A see reference appears at the end of the schedule, under Subjects. As there are no files under Subjects, a see reference directs patrons to headings indicative of portraits, e.g., "For portraits, see G 1.4 Filters-Black and white films-Green." Should patrons request photographs for purposes not explicitly provided for in the schedule, the librarian must choose between adding a see reference or adding another heading. Thus, should requests for photographs of certain subject types not be satisfied by a see reference to portrait-productive head-
ings, then the librarian either must expand this reference, after combing the collection for appropriate subject types, or must add to the schedule a main heading, Subjects, and appropriate subheadings.

The schedule defines the emphasis of the collection. For example, if patrons request material to illustrate processes mainly of historical importance, like ambrotypes or platinum prints, the librarian must choose between adding a main heading that subsumes these processes or expanding, with subheadings, the scope of an already-existing heading. The decision should be based on the quantity and scope of the appropriate material in the collection.

Two formats are suggested for displaying the schedule—a card-file format and a book format. In the card file, each heading and each subheading appear on their own 3 in. × 5 in. card. This format permits changes in the schedule to be quickly and easily displayed. The book format is only a few pages long and permits patrons to easily scan the entire schedule. However, this format does not allow changes in the schedule to be displayed as quickly as can be done in a card file. Because the schedule is so short, a dual format can be prepared quickly.

Conclusions

The application of this kind of schedule demands that librarians be conversant with the language and products of photography. Photographs must be evaluated for their salient technical demonstrations, and this evaluation must be translated into the language of the schedule. Librarians must be able to revise or augment the schedule as use directs. They must keep abreast of new technological directions and accommodate patrons' requests within the limitations of the collection. In short, they must know photography as well as librarianship.

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For the organization of photographic collections in commercial houses, see Eastman Kodak / “Filing Prints and Negatives.” Rochester, N.Y., Eastman Kodak, 1960.
2. Copies of the schedule itself are available from the author, 1047 East 5th Street, Brooklyn, N.Y. 11230.
3. For descriptions of coordinate indexing systems for photographic collections, see:

Pieters, Donald L. / Handling Photograph Collections by Coordinate Indexing. Special Libraries 66 (No.11):541–542 (Nov 1975);

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Developments in Map Cataloging at the Library of Congress

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Limited experience in cataloging maps at the Library of Congress and elsewhere resulted in rules for cataloging which were in many instances inadequate or unworkable. With the inception of MARC map cataloging at the Library of Congress, and with increasing efforts at other institutions, these problems were brought into sharp focus resulting in major revisions on most of the cataloging tools for maps. These include the Anglo-American Cataloging Rules, the G classification schedule, and a special application of Library of Congress subject headings. In addition, the Geography and Map Division created its own manual, and an international standard [ISBD (CM)] is in progress.

In 1968, when the MARC (machine readable cataloging) map cataloging project at the Library of Congress began, there was relatively little accumulated experience in cataloging maps upon which to draw, either within the Library, or in the Anglo-American cataloging community as a whole. True, many libraries or map collections did catalog considerable numbers of maps, and many others cataloged a few. But for the most part, those institutions which cataloged the greatest numbers of maps did so according to unique systems. Judging from the literature of map cataloging, the approach chosen by the Library of Congress, that of cataloging maps in a system analogous to book cataloging, was not a particularly popular approach.

The Library's Geography and Map Division itself had limited experience. The map cataloging staff prior to the MARC project consisted of a single full-time professional cataloger, who, with some assistance from another staff member, managed to catalog less than one percent of the Library's yearly receipts (about 600 maps a year) for printed cards; an undetermined additional number of maps received abbreviated cataloging for shelflisting purposes.

It was from these beginnings that map cataloging first developed at the Geography and Map Division, and upon this small foundation that the present body of map cataloging practice began slowly to be built. An additional factor affecting map cataloging was introduced at the time of the inception of the MARC map project. It was the Library of Congress' policy of compatibility, in which the Library required that cataloging records produced in the Geography and Map Division for inclusion in the MARC map data base be completely compatible with, and as nearly identical as possible to, MARC monographs cataloging. It is on the basis of this requirement that all deci-
sions affecting MARC map cataloging have been and continue to be made.

Map Cataloging Tools

The policy of compatibility determined the various tools and sources of instruction which could be used for MARC map cataloging. The tools prescribed were those used by the Library's descriptive cataloging divisions and its Subject Cataloging Division, and were for descriptive aspects: the Anglo-American Cataloging Rules (AACR), supplemented by the Library's internal Rule Interpretations; the Descriptive Cataloging Manual, plus miscellaneous memoranda and notices; and the GPO Style Manual. For subject aspects there were: the Library of Congress classification schedule subclass G; the Library's subject headings; the Subject Cataloging Manual together with miscellaneous memoranda and decisions; and the minutes of Subject Cataloging Division's weekly editorial meetings.

It might seem that this assortment of manuals and rule books would have been adequate to answer any question about map cataloging that could possibly have been asked. Shortly after the MARC map project began, however, it became obvious that there were many problems and considerations related to cataloging maps which were either not treated in these sources, or which were treated inadequately or unclearly. Initially, the largely inexperienced catalogers who made up the MARC map cataloging staff sought guidance from the one among them who had been on the staff prior to the project, but subsequently, a more permanent solution to the joint problems of insufficient information and experience was begun in the compilation of an internal manual of map cataloging practice.

Of the manuals and other tools mentioned above, the Descriptive Cataloging Manual, Rule Interpretations, and miscellaneous memoranda, the Subject Cataloging Manual, memos and minutes, and the Geography and Map Division's own manual are internal documents. Except for the map manual, they are of little interest to map catalogers outside the Library of Congress. Of the external works, the GPO Style Manual has only a peripheral effect on map cataloging, and is, moreover, not a work over which the Library of Congress has any control.

The remaining works—the AACR, the classification schedule, the list of subject headings—and the Geography and Map Division's map cataloging manual, have been greatly affected by developments in map cataloging. An additional document tentatively scheduled for publication and implementation in 1977 is the International Standard Bibliographic Description (Cartographic Materials). The ISBD(CM) is itself partially a result of changes in map cataloging and has potential for enormous impact on the field.

Anglo-American Cataloging Rules

The AACR includes rules for choice and form of entry, and for the description of bibliographic materials. Most rules are applicable to most materials, and these make up the majority of the text. Special rules for the various non-book formats are outlined in separate chapters. Chapter 11 includes maps.

The Geography and Map Division cannot evaluate Chapter 11's suitability for the description of maps in a small or general collection, but in a large map cataloging effort it is inadequate. Its major faults seem to result from a too restricted view of the types of materials which may be encountered. As a result, there are too few examples for adequate elucidation, and the wording of some rules or examples seems to restrict application, or to imply that a particular situation occurs only with a certain sort of map. There are other difficulties as well, but by far the most aggravating aspect of Chapter 11 is the attempt to differentiate between works in which a "subject aspect" predominates, and those in which a "geographic aspect" is primary. The distinction, which influences choice of main entry, is both artificial and impossible to make, and the presence of this rule has confounded map catalogers for years.

It is impossible to tell if, or to what extent, full book-like cataloging of maps
has been deterred or delayed by the imperfections of Chapter 11. There is hope that whatever the deterrent may have been in the past, it will be lessened in the future, since the AACR is currently under revision. Publication of the second edition is now expected in 1978.

Proposed Changes. The Geography and Map Division and many other libraries and organizations in the U.S. and Canada were invited to suggest changes in the AACR; the Geography and Map Division alone proposed more than 50 changes. Its proposals, which were forwarded to the Joint Steering Committee for Revision of AACR in mid-November 1975, ranged from the purely editorial to the drastic. They included an expansion of both examples and text in the notes area, especially for notes related to cartographic information, and the eradication of the subject vs. geography distinction for choice of entry. Among its several suggestions, the Canadian Committee on Cataloguing has proposed that the option for area main entry, offered in the British text of the first edition of AACR, be incorporated into the second edition.

Few people would insist that changes in Chapter 11 were not necessary, but the timing of the revision is unfortunate, falling as it does so close to the projected publication of ISBD(CM). Ideally the standard would have preceded the development of rules. Every effort is being made to incorporate into the second edition of the AACR the projected provisions of international standards for bibliographic description currently in progress (in addition to ISBD(CM), standards for music, non-book material, early printed books, and serials are being developed). This may prove to be an imperfect enterprise if the AACR's deadline for completion antedates major last-minute changes in the standards. In an effort to include at least some of the provisions of ISBD(CM) in the revised rules, therefore, in January 1976 the Geography and Map Division altered certain of its preliminary proposals for revision of the AACR to conform with some expected provisions of ISBD(CM). The Canadian Committee on Cataloguing, whose deadline for proposals was somewhat later than the Geography and Map Division's, had time to submit all of its proposals in the probable ISBD(CM) form.

Even if it is not possible to incorporate the provisions of ISBD(CM) into the AACR second edition before it is published, and even if some of the proposals for change submitted by the Library of Congress, Canadian Committee on Cataloguing, or other interested bodies are not included in the new chapter, the revision of the Anglo-American Cataloging Rules will still constitute an improvement over the present edition.

Classification Schedule

The Library of Congress first published a G schedule with provision for classification of maps in 1954. From this first appearance two practices have remained constant: geographic coverage is given prime consideration, subject being treated as the subordinate aspect; and the final digit of a four-digit number for a given area constitutes a mnemonic device. Both concepts have proved valuable, but there were other elements in the schedule that were less satisfactory.

Awkwardness of the schedule is largely attributable to a combination of several factors. First, the Library of Congress classification schedules are not theoretical. Numbers are created only in response to specific needs (as on the basis of the collection) and not because of possible or anticipated future use. Second, the Geography and Map Division's collections at the time the map classification system was being devised were arranged in a general geographic way, with virtually no cataloging or shelflist representation. The resultant lack of bibliographic control, coupled as it was with limited cataloging experience, made it difficult to determine the needs of a classification system based on the collection. It was almost impossible to judge, for instance, how much detail might be required in a schedule, or whether or not certain proposed practices were either desirable or workable.

Although certain provisions of the G schedule were quickly recognized as in-
In early 1974, the Library's Subject Cataloging Division proposed a general revision of the entire G schedule.

Convenient, classification of materials was possible. With the accelerated cataloging effort of the MARC map project, however, the G schedule's problem areas became increasingly obvious and difficult to work with. Between 1972 and 1974 a number of changes were made in the schedule, but because of the press of other work, and the complexity of the editorial process involved, progress was slow.

In early 1974, the Library's Subject Cataloging Division proposed a general revision of the entire G schedule, and the staff of the Geography and Map Division was able to propose comprehensive changes, which, if made piecemeal, might have taken as much as a decade to complete.

Alterations to the schedule were of five types: correction, updating, expansion, revision, and the introduction of new devices.

Correction involved making certain that practice agreed with the printed schedule. Most changes made in this category involved cases in which a city or region Cutter had been printed as one number, but used as another. Other important corrections were made in the instructions for the Table of Area Subdivisions.

Updating the schedule included changing names to the current form (Zaire rather than Congo, Israel instead of Palestine, People's Republic of China and not China Proper); providing places for divided, expanded, or new governments (such as the partitions of Ireland, Germany, and Korea); listing new internal divisions of existing countries (Alaska and Hawaii became states); and reflecting internal reorganization of other countries (such as Great Britain, Denmark, and Italy).

Expansion involved printing Cutter numbers for sub-country level units not previously in the schedule. Included were new lists of administrative divisions, and the addition of printed Cutter numbers for many physical features in the United States. Significant expansion also took place in the Table of Subject Subdivisions, in the instructions for the Table of Area Subdivisions, and in the addition of a new table to explain the filing arrangement for map classification numbers.

Revision was the most complicated category. Major types of changes made were: deletion or relocation of unused, confusing, or incorrectly located numbers (G3235–3237 Water Hemisphere was deleted; G3310–3312 International Waters of North America was deleted and replaced with the Great Lakes Aggregation; G4400–4402 Latin America was deleted and reclassified as G3292.L3, a region of the Western Hemisphere); abandonment of the practice of dividing countries into arbitrary geographic regions under which regions and provinces were arranged alphabetically (as in India, Italy, Greece, and Spain); and a narrowing of the concept of “non-localized” maps. The underlying principle for classification of historical maps was also altered to agree with the rest of the schedule. The system for classifying these materials had probably been the most difficult to apply of all the G schedule's former provisions; the revision constitutes a reversal in that, in line with the rest of the schedule, geographic area is now given first consideration, and the historical aspect is treated secondarily.

Three new devices were introduced in the revision: the decimal, the colon, and maps. The decimal, which has been used in other Library of Congress classification schedules, but is new to G, allows for greater internal expansion while still retaining in subclass G the mnemonic final digit. The colon, a device unique to the G schedule, was approved for use in 1972, but the 1976 edition is the first in which it is printed. It allows classification, by means of an alpha-mnemonic Cutter, of regions or administrative divisions of cities, or administrative units of first order administrative divisions.

Finally, with this revision, G becomes the first Library of Congress classification schedule to make use of illustrations—in this case maps. They are included as classification aids, and were derived from
similar maps originally made by staff map catalogers for their own use.

The Geography and Map Division's revision of subclass G1000-G9999 (including atlases and globes) was published in mid-June 1976, though the Division has been using the new classification numbers since mid-1975.

Library of Congress Subject Headings

The eighth edition of Library of Congress Subject Headings, published in 1975, and complete through 1973, is a great improvement over its predecessor, both from the point of view of completeness, and in its expanded introduction and instructions. It should be noted that the subject heading list, perhaps more than any other tool of cataloging, is perpetually in a state of change. New headings are added as required, old headings without geographic subdivision are divided as works demand it, and, as a result of a policy shift, most old headings previously divided Direct are being changed to Indirect geographic subdivision. This policy has a great effect on map cataloging, since it collects subject works together in the catalog under country or state.

Even more far-reaching is a change proposed by the Geography and Map Division, and approved in principle by the Subject Cataloging Division. This proposal is for a system of “reversible subject headings” in which works classed in G1000-G9999 would receive, in addition to any subject heading divided geographically Direct or Indirect, an additional special subject heading in which the subject and geographic area were reversed. Thus, a geological map of Natrona County, Wyoming would receive both the presently prescribed heading of Geology—Wyoming—Natrona Co.—Maps, and the special reversed heading of Natrona Co., Wyo.—Geology—Maps. Subject heading reversal would not be applied to subjects which are already used as a subdivision under area (such as Road maps) in which the place already comes first.

Reversible subject headings have only been approved in principle. The details of application are presently being formulated, and there is at this time no definite schedule for implementation. Once the system has been put into practice, it should be of considerable assistance to the reader searching for materials through a dictionary catalog.

Map Cataloging Manual

The Geography and Map Division's internal map cataloging manual is formulated and maintained in regularly scheduled catalogers' meetings where problems are discussed and decisions recorded. Originally arranged in simple chronological order, the decisions included: interpretations or restatements of rules found in other cataloging sources, decisions affecting the catalog record itself, internal procedures, reminders, and news. As the decisions proliferated, much extraneous material had to be excluded, and a distinction made between Decisions and Procedures.

The manual is extremely detailed in the area of note construction, and collation. It also contains discussions of certain types of problem materials such as aerial views, facsimiles, photocopies, and tourist maps, which attempt to define concepts and to correlate the various types of materials with their classification, subject headings, notes, collation, and other elements of description.

In January 1976 work was begun in arranging the decisions systematically rather than chronologically, into three major divisions: “visible cataloging,” or what actually appears on a catalog card; internal procedures, including authority cards; and a glossary. To date the work is 50% complete. When the preliminary draft is ready, the Geography and Map Division will edit the manual for publication, which is anticipated some time in fiscal year 1978. It may be possible to incorporate into this Library of Congress publication the improved ISBD(CM)-influenced rules of the AACR second edition—depending on the rate of progress for the manual, the adoption timetable and strategies developed for the second edition of the AACR by the Joint Steering
Committee, and the degree of harmony achieved between these rules and the final version of ISBD(CM).

International Standard Bibliographic Description (Cartographic Materials)

Perhaps the most important influence on map cataloging rules will be ISBD(CM). The publication of this international standard can be regarded as an outgrowth of the maturation of map cataloging, and a culmination of map cataloging progress worldwide. In pertinent areas, rules based at least partially on ISBD(CM) will supersede all other rules for map cataloging. The standard itself, of course, would not suffice as a cataloger’s guide; its provisions are mainly general, providing a framework on which to construct detailed provisions of the type that is needed for cataloging rules.

The Geography and Map Division staff hopes that the second edition of the AACR will include as many of the ISBD(CM) provisions as possible. If this works out, the staff is prepared to urge the Library of Congress to adopt all of the provisions relating to optional areas: the general medium designator, coordinates, printer’s imprint, standard number and price information, as well as second level cataloging. The actual implementation of some of these practices will, however, be dependent on staff.

Summary

Sources of rules or instruction for cataloging maps have been relatively few and far from satisfactory, due in part to the small amount of direct experience in cataloging cartographic materials in the past. Within the last decade, however, increasing efforts in this area have brought the various inadequacies of cataloging sources into sharp focus, have impelled their improvement, and have given librarians the experience with which to effect useful change.

Map catalogers will soon have available to them the results of much of this development: a new AACR (in 1978?), the revised G schedule (1976), a system of reversible subject headings (1977?), a Library of Congress map cataloging manual (1978?), a Canadian map cataloging manual (1977) not mentioned previously, and an international standard for the description of cartographic materials (1977?).

There is no guarantee that these works will make the job of map cataloging simple, but they will certainly make it easier and considerably more consistent.

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On-Line Bibliographic Retrieval Systems Use

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On-line systems for bibliographic retrieval are becoming more widely used in special libraries. Yet, in spite of the convenience and speed of these systems, not all scientific users have shown enthusiasm. An evaluative survey conducted in one library implies a need for continued publicity and training to promote interest and familiarity among the user community.

ON-LINE bibliographic retrieval systems were introduced in March 1974 in the library at the National Bureau of Standards. They seemed to offer a means of continuing services that were rapidly becoming a luxury. Rising book, journal, and personnel costs were eating into the library’s budget, and personnel time could not be spared for the traditional manual bibliographic searches.

The staff of the National Bureau of Standards at Gaithersburg, Md. consists of about 3,000 people, less than half of whom are highly trained scientists and technologists. They engage in research and measurement studies ranging over a wide area of subjects, so that the library must be prepared to offer information in many fields.

As rapidly as possible in 1974 the library acquired on-line access to data bases as they became available through Lockheed Information Systems and the System Development Corporation. The library also became a user of the National Library of Medicine’s services. Seminars and workshops as well as announcements in in-house publications were used to alert users to the possibilities of computerized systems in finding information. Through special funds allotted to the library on a one-time basis, all searching was free to the user for the first four months. Thereafter, a first search was offered without charge, but the user was required to pay the library for subsequent searches. Charges were made only for actual on-line time and any off-line printing. Search analysts were instructed to suggest a computer search whenever it might prove relevant, but not to oversell the services by promising too much.

At that time there was much discussion as to whether the final user of the information should himself operate the terminal, or whether he should have an analyst intermediary. The library was willing to try every method to interest its clients in these systems. There was also the possibility that, confronted with large demand, neither library budget nor personnel could keep up with the need for searches. Training courses set up to instruct staff analysts in the use of the various systems were therefore opened to any interested personnel. Representatives of the different vendors taught other users at the same time as the librarians were learning. These
sessions as well as the original workshops and seminars were well attended.

At the end of the first year, some 25 different identification codes for entry into on-line systems were registered by users outside the library at the National Bureau of Standards. Some of these users had codes for several systems, as did the library. Any user in the bureau thus has a choice as to whether to do his own searching or to ask the library to do it. If the library runs a search, its analysts suggest that the requestor be present in order to judge the relevance of results and refine the strategy if necessary.

Use Statistics

From the beginning, the library has kept careful statistics of its own use and the cost of all on-line services (1). All inside-library users (those for whom the library’s analysts acted as intermediaries) have been asked to fill out evaluation forms.

Table 1 shows statistics for the number of searches run by the library and their costs for quarterly periods since the service began. The first four months include the free period, when library analysts were learning and when users paid no fees. In July 1974 charges began. In August an additional system was introduced, which caused a jump in number of searches for that month. Thereafter, there is a marked decline, which is followed by a slow and small but apparently steady increase, and then a leveling off.

Though the library has no means of monitoring outside-library searches, the amount of money spent on them is known. This amount would indicate that there has been no great expansion in the number or scope of the searches. Total cost of these searches for the year ending with July 1976 were $11,288; the preceding year’s costs were $11,014.

Improvement in skill of the analyst accounts for some of the reduction in in-library costs. Some of the systems have introduced changes in software which may have reduced search time. There have also been cost reductions on some data bases. Higher costs to the library may reveal large retrieval and high off-line expense rather than more on-line time, as seen in Table 2. The figures in this table show variations in many aspects of searching.

Table 1. Number of Searches Done by Library Analysts and Their Costs, Compiled by Quarter

<table>
<thead>
<tr>
<th></th>
<th>Searches</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar–Jun 1974</td>
<td>175</td>
<td>$3402</td>
</tr>
<tr>
<td>Jul–Sep</td>
<td>108</td>
<td>$3082</td>
</tr>
<tr>
<td>Oct–Dec</td>
<td>68</td>
<td>$1803</td>
</tr>
<tr>
<td>Jan–Mar 1975</td>
<td>105</td>
<td>$3977</td>
</tr>
<tr>
<td>Apr–Jun</td>
<td>85</td>
<td>$2562</td>
</tr>
<tr>
<td>Jul–Sep</td>
<td>94</td>
<td>$1811</td>
</tr>
<tr>
<td>Oct–Dec</td>
<td>118</td>
<td>$2107</td>
</tr>
<tr>
<td>Jan–Mar 1976</td>
<td>108</td>
<td>$2612</td>
</tr>
<tr>
<td>Apr–Jun</td>
<td>106</td>
<td>$2400</td>
</tr>
<tr>
<td>Jul–Sep</td>
<td>113</td>
<td>$2431</td>
</tr>
</tbody>
</table>

User Evaluations

User evaluation of library services in the beginning was understandably mixed. For the month of April 1974 only 42% of the responses were considered favorable; by September and October this figure had reached 100%. During the first year, with a return of 49% of the appraisal forms sent out, responses overall were considered 73% positive, 18% negative, and 9% no response (2).

In the second year of searching, it became increasingly difficult to get users to fill out the evaluation forms, which were sent out after a first search and thereafter only after each third search. This problem continued even after the form was shortened considerably. At the same time, the number of first-time users decreased and fell finally for two months to zero.

It was not known whether this meant that a saturation point had been reached of new users in the organization, or whether publicity, which had dropped off during a period of staff shortages, was indeed the only effective means of attracting the novice. It was hard to believe that all potential customers had been reached, since the users were only a small percentage of the organization staff. Renewed publicity did bring about the
Table 2. Time and Costs of Searches Performed by Library Analysts over One 12-Month Period

<table>
<thead>
<tr>
<th>No. of Searches</th>
<th>Total Cost</th>
<th>Avg. Cost (Overall &amp; Off-Line)</th>
<th>Total Time (minutes)</th>
<th>Avg. Search Time</th>
<th>Off-Line Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1975</td>
<td>29</td>
<td>$893.03</td>
<td>30.79</td>
<td>779</td>
<td>26.86</td>
</tr>
<tr>
<td>May</td>
<td>28</td>
<td>552.39</td>
<td>19.05</td>
<td>473</td>
<td>16.30</td>
</tr>
<tr>
<td>June</td>
<td>28</td>
<td>1116.80</td>
<td>39.89</td>
<td>663</td>
<td>23.70</td>
</tr>
<tr>
<td>July</td>
<td>26</td>
<td>456.58</td>
<td>17.56</td>
<td>562</td>
<td>21.60</td>
</tr>
<tr>
<td>August</td>
<td>28</td>
<td>497.92</td>
<td>17.78</td>
<td>482</td>
<td>17.20</td>
</tr>
<tr>
<td>September</td>
<td>40</td>
<td>856.36</td>
<td>21.41</td>
<td>570</td>
<td>14.25</td>
</tr>
<tr>
<td>October</td>
<td>60</td>
<td>1009.68</td>
<td>16.83</td>
<td>920</td>
<td>15.33</td>
</tr>
<tr>
<td>November</td>
<td>32</td>
<td>634.59</td>
<td>19.83</td>
<td>624</td>
<td>19.50</td>
</tr>
<tr>
<td>December</td>
<td>26</td>
<td>461.95</td>
<td>17.77</td>
<td>340</td>
<td>13.07</td>
</tr>
<tr>
<td>January 1976</td>
<td>31</td>
<td>457.38</td>
<td>14.75</td>
<td>571</td>
<td>18.40</td>
</tr>
<tr>
<td>February</td>
<td>21</td>
<td>1190.43</td>
<td>56.69</td>
<td>700</td>
<td>33.30</td>
</tr>
<tr>
<td>March</td>
<td>56</td>
<td>985.63</td>
<td>17.24</td>
<td>847</td>
<td>15.12</td>
</tr>
<tr>
<td>Totals</td>
<td>406</td>
<td>$9092.74</td>
<td>22.40</td>
<td>7531</td>
<td>18.54</td>
</tr>
</tbody>
</table>

Table 3. Frequency of User Use: How Often and Why?

<table>
<thead>
<tr>
<th>Inside Users (Based on 20 People)</th>
<th>Outside Users (Based on 10 People)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Frequency of Use in Estimated Times per Year</td>
<td></td>
</tr>
<tr>
<td>Once</td>
<td>9</td>
</tr>
<tr>
<td>Two to Four</td>
<td>8</td>
</tr>
<tr>
<td>Five to Fifteen</td>
<td>2</td>
</tr>
<tr>
<td>Sixteen or More</td>
<td>0</td>
</tr>
<tr>
<td>Undetermined</td>
<td>1</td>
</tr>
<tr>
<td>What Accounts For Use?</td>
<td></td>
</tr>
<tr>
<td>New Project</td>
<td>13</td>
</tr>
<tr>
<td>Free Search Offer</td>
<td>4</td>
</tr>
<tr>
<td>Relevance of Data Bases to Work</td>
<td>2</td>
</tr>
<tr>
<td>Too Much Material to Read</td>
<td>2</td>
</tr>
<tr>
<td>Too Few Personal Contacts in Field of Research</td>
<td>1</td>
</tr>
<tr>
<td>Time Constraints</td>
<td>1</td>
</tr>
<tr>
<td>Money</td>
<td>1</td>
</tr>
<tr>
<td>Requests from Others to Do a Search</td>
<td>1</td>
</tr>
<tr>
<td>Do Experiments with it</td>
<td>0</td>
</tr>
<tr>
<td>Need Information for Own Department</td>
<td>0</td>
</tr>
</tbody>
</table>

March 1976 increase in the number of searches.
Continuing evaluations of library-assisted searches were considered desirable, though search usefulness was evident from the number of repeat users.

Evaluation Through Interviews

It was decided in February 1976 to seek an outside appraisal of user use. The library engaged the services of an industrial psychologist, Dr. Benjamin Schneider of the University of Maryland, who, with two of his students, undertook a sampling of both users and nonusers of library on-line services.

Since relatively few requests for updates were received, one purpose was to find out how frequently the users expected to need on-line searches. Respondents were also asked what the immediate moti-
### Table 4. Why Users Say They Use the Systems

<table>
<thead>
<tr>
<th>General Use of Systems</th>
<th>Inside Users (Based on 20 People)</th>
<th>Outside Users (Based on 10 People)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Initial Search</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Updating</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Specific Reasons Mentioned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start a New Project</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Keeping Up-to-Date</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Check a Hand Search or Own Awareness</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Psychological Security</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Curiosity</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

The number of comments made may total more than the number of users because a person might have mentioned more than one use, e.g., for General Use of Systems, there appear to be 23 inside user comments; in fact only 20 inside users were interviewed.

### Table 5. Reasons for Outside Use

<table>
<thead>
<tr>
<th>Why did they switch?</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own terminal more convenient</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Own research assistant does search</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Too slow using the library</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>More flexible in terms of time</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Obtains more information</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>More fun</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

*One "outside" user was no longer an "outsider" but had switched to being an inside user "because the librarians are better at combining keywords."

The library also has acted as consultant in some cases where the searcher was aware of the fact that he did not know the data base and needed advice. In one unusual case, a searcher happily performs his own searches but comes to the library to get help in accessing the system, which he has forgotten how to do.

### Nonuser Survey

It was particularly interesting to survey nonusers, in order to discover whether there was some opposition or whether they were simply uninformed. The interviewers approached anyone who would agree to talk to them from the group of people using the library on one of two
Table 6. Nonuser Results

<table>
<thead>
<tr>
<th>Number</th>
<th>Familiar with on-line retrieval systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>11</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>For those familiar, why not use?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unnecessary in job</td>
<td>3</td>
</tr>
<tr>
<td>Would use if no charge</td>
<td>2</td>
</tr>
<tr>
<td>General personal reluctance</td>
<td>1</td>
</tr>
<tr>
<td>New employee unfamiliar with who does what</td>
<td>1</td>
</tr>
<tr>
<td>Heard the keywords were crummy</td>
<td>1</td>
</tr>
<tr>
<td>Unsatisfactory experience elsewhere</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Why use NBS Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodicals</td>
<td>14</td>
</tr>
<tr>
<td>Quiet</td>
<td>3</td>
</tr>
<tr>
<td>Good collection</td>
<td>5</td>
</tr>
<tr>
<td>Interlibrary loan</td>
<td>4</td>
</tr>
<tr>
<td>Lots of space</td>
<td>3</td>
</tr>
<tr>
<td>Librarians helpful</td>
<td>2</td>
</tr>
<tr>
<td>Get things quickly</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Overall evaluation of library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very satisfied</td>
<td>11</td>
</tr>
<tr>
<td>Satisfied</td>
<td>2</td>
</tr>
<tr>
<td>Neither</td>
<td>0</td>
</tr>
<tr>
<td>Unsatisfied</td>
<td>0</td>
</tr>
<tr>
<td>Very unsatisfied</td>
<td>0</td>
</tr>
<tr>
<td>No response</td>
<td>6</td>
</tr>
</tbody>
</table>

(days. By an oversight, the interviewers had not been instructed to question only members of the National Bureau of Standards staff; consequently, the answers include four people (retirees) who are not a part of the regular user public, and do not therefore constitute the random sample originally sought. The responses are revealing, nevertheless. Table 6 reports them.

Conclusion

Library managers and analysts who have converted to on-line systems are usually enthusiastic about them, and a few report that reception by patrons has overburdened the staff (3). In other cases, however, growth in usage has been slow and promotional measures have been necessary to assure continued use (4). The conclusions reached from this very limited study confirm some of the problems found in other studies (4, 5) and the expectations of analysts and staff. Cost does seem to be a factor in lack of enthusiastic acceptance, though not a large one. In the context of this library, where cost is a matter of transfer of funds, the problem of dealing with the paperwork may be a greater deterrent than the cost of the service itself. Complaints that not enough material is available on-line have been heard. In some cases, this is of course a genuine concern, since relevant research may have been conducted some years back and then discontinued; so it is not represented in the database. More commonly, citations found on-line will lead backward to related research.

The difficulties of negotiating a search are not staggering, unless the researcher simply does not wish to use an intermediary. He does have to explain the problem clearly to an analyst, but then is urged to sit with the analyst at the terminal while the search is run. Many fortunate discoveries have thus been made, exactly equivalent to those found on browsing the shelves of any library. The same discoveries are there for the user who will take the time and trouble to learn—even if minimally—a command language and something about a database. But the analysts can always spend more time updating their knowledge and maintaining skills.

On-line searching seems at present to be the only satisfactory way to keep up with the amount of new material published. Difficulties associated with its use (5), and the costs attached, have slowed widespread adoption. Though users generally indicate satisfaction with on-line services, they represent only a small proportion of those who could be reached. One can only conclude that innovation takes time. On-line searching sometimes conflicts with long-established habits, and will not replace them immediately. Reduced cost, continued publicity, and orientation are required to introduce users to the advantages of this new method of acquiring information.

April 1977
Note on Methodology: Dr. Schneider's team used standard methodologies developed for conducting evaluation research. They took a representative random sample of names from lists of library on-line systems users and of outside-library searchers with their own identification codes. The team interviewed these samples, usually in their own offices. They also interviewed nonusers, who were a selection of people sitting in the library on two separate days. Our previous compilation of statistics and evaluation forms established a background against which the evaluation could be assessed.

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Special Libraries in Pakistan

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Pakistan's 242 special libraries represent the youngest category of libraries in the country. Their potential strengths and weaknesses are identified and some hints are given on improving resources and services to readers. Since English is the main language used by the clientele in these libraries, collection building and the availability of major indexing and abstracting services should not present a major problem. The author calls for increased governmental financial support, for a more sophisticated system of cooperation among the existing libraries, and for an intensive program of library education and training. A list of major special libraries in Pakistan is included.

Pakistan as a developing country, together with other developing and developed countries, is fully aware of the urgency of effective information services in all fields and sources of science and technology for national development. A national awareness has evolved within Pakistan. This has led to a realization that she needs to develop industrially to keep up with other countries; thus a concerted effort at educational and economic reconstruction has begun. These have been, and still are, finding expression in progressively greater participation of the government in national life, as envisaged in the four Five-Year Development Plans and recent reforms. Emphasis on development and proper utilization of both the hitherto unharnessed natural resources and the pool of human intellect has characterized research in the fundamental and applied sciences. Hundreds of agencies and projects sponsored by them have been set up by the government for study and analysis of existing problems in all spheres. With these grew the special libraries.

At the time of partition, Pakistan had only 35 small special libraries, which were attached to various scientific and technological institutions and government departments. They were poorly stocked and had to start from scratch to develop their collections. After gaining independence (1947), particularly during the first two plan periods, Pakistan made rapid progress in almost all walks of life. A large number of educational institutions, including universities, were established. Several research and develop-
Table 1. Number of Special Libraries by Region and their Holdings as of 1974

<table>
<thead>
<tr>
<th>Region</th>
<th>Libraries</th>
<th>Holdings</th>
<th>Libraries</th>
<th>Holdings</th>
<th>Libraries</th>
<th>Holdings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punjab</td>
<td>42</td>
<td>292,035</td>
<td>46</td>
<td>455,890</td>
<td>88</td>
<td>747,925</td>
</tr>
<tr>
<td>Sind</td>
<td>45</td>
<td>244,871</td>
<td>61</td>
<td>415,788</td>
<td>106</td>
<td>665,659</td>
</tr>
<tr>
<td>Sarhad (NWFP)</td>
<td>11</td>
<td>155,820</td>
<td>8</td>
<td>44,286</td>
<td>19</td>
<td>199,906</td>
</tr>
<tr>
<td>Baluchistan</td>
<td>3</td>
<td>56,265</td>
<td>1</td>
<td>3,450</td>
<td>4</td>
<td>59,715</td>
</tr>
<tr>
<td>Islamabad</td>
<td>9</td>
<td>56,980</td>
<td>16</td>
<td>170,293</td>
<td>25</td>
<td>227,273</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>805,771</td>
<td>132</td>
<td>1,089,707</td>
<td>242</td>
<td>1,900,478</td>
</tr>
</tbody>
</table>

The political changes in the region after the past two wars with India (September 1965 and December 1971) and the growing population have accentuated the urgency of increasing efficiency and productivity of industries and agricultural output. The result has been an expanded program of scientific and technical education on the one hand, and scientific, industrial, and agricultural research on the other.

The establishment of various institutions and expanding research activities brought with them a demand for library services in their specific fields. Consequently, new special libraries were set up and the older ones—which were in a healthy state compared to public and other types of libraries—were reorganized.

Pakistan now has 242 special libraries, 110 in science and technology and 132 in social sciences and humanities. Approximately 80% of these libraries are maintained and financed by the government and semi-governmental autonomous bodies. Some industrial establishments in the private sector have also set up special libraries. Table 1 shows the number of libraries in different regions of the country and their holdings (1).

**Resources**

The effective use of a special library obviously depends to a large extent upon the size and quality of its collection. Excluding some good libraries, like those of atomic energy centers, scientific and industrial research centers, military colleges, and universities, only a remaining few may be termed good modern libraries, both qualitatively and quantitatively. Most of them are lacking in complete files of journals, abstracts, indexes, and bibliographical tools, which are essential for sustained research. This fact was noted by the Scientific Commission in 1960:

> We have a woeful lack of up-to-date scientific books in the libraries of scientific establishments. The importance of fostering the exchange of ideas and establishing contacts with scientific works in other countries cannot be overemphasized, but the most important way to achieve this is through books, periodicals and other scientific publications (2).

The Central Treaty Organization Study also observed:

> That generally speaking, library resources are not adequate to country's needs. The existing resources are poorly organized and little used (3).

Since English continues to be the medium of instruction for higher education and research, the collection is mostly in English. About 85 to 90% of the material is imported. The complicated customs regulations, inadequate foreign exchange allocations, and import policies are the main factors in retarding the steady growth of library resources.

**Services to Readers**

The services provided by most of the special libraries do not go beyond the circulation of library materials and a certain amount of reference work. Indexing, abstracting, bibliography compilation, and current awareness services are lacking.

The scope of service must be widened if the library is to fulfill its purpose of supplying information on request from all
available resources. Following are some suggestions for Pakistani special libraries.

Reproduction Facilities. Photocopying service in the library saves researchers time and should be provided free to them. The services of the Pakistan Scientific and Technical Information Center (PASTIC), Islamabad (formerly PANSDOC, Karachi) may be extended and used for local and foreign materials.

Translations. Translations of articles and references in foreign languages should be provided, either through PASTIC or with the help of persons fluent in foreign languages. A list of such names can easily be prepared. The Commonwealth Scientific Offices in London distributes translation cards in duplicate. An index file of these cards should be maintained in PASTIC library to facilitate the location of translations already available.

Cooperation. The need for greater access to literature, and thus, for cooperation among special libraries in similar subject fields, should logically lead to closer ties to the planned Pakistan Science Foundation Library, Islamabad (4).

Conclusion

The development of special libraries in Pakistan has been slow, although some progress has been made in certain of the government agencies, organizations, private enterprises, and universities. Libraries go unrecognized by key government officials, a majority of whom overlook the unique ability of the special library to provide pertinent services to their institutions. Development of these libraries is hindered by inadequate resources. Pakistani special libraries, like all special libraries, need adequate financial support for library materials, better working conditions, and higher salaries to attract professional librarians and subject specialists with advanced degrees in library and information sciences. The revival of the Pakistani Special Libraries Association is also needed, along with cooperation among libraries, in setting up minimum standards for library organization, library education and training, book selection tools, and bibliographical services.

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Received for review Sep 2, 1976. Manuscript accepted for publication Feb 17, 1977.

Appendix A

Selected List of Special Libraries in Pakistan

<table>
<thead>
<tr>
<th>Institution</th>
<th>City</th>
<th>Province</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Research Institute Library</td>
<td>Lyallpur</td>
<td>Punjab</td>
</tr>
<tr>
<td>Atomic Energy Center Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Civil Services Academy Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Geological Survey of Pakistan Library</td>
<td>Quetta</td>
<td>Baluchistan</td>
</tr>
<tr>
<td>Institute of Biochemistry Library:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University of Karachi</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>Institute of Chemical Engineering</td>
<td></td>
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<tr>
<td>&amp; Technology: University of the Punjab</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Institution</td>
<td>City</td>
<td>Province</td>
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</tr>
<tr>
<td>*Institute of Hygiene and Preventive Medicines Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>†Institute of Physics Library: University of Islamabad</td>
<td>Islamabad</td>
<td>Federal</td>
</tr>
<tr>
<td>Institute of Radiotherapy and Nuclear Medicine Library</td>
<td>Peshawar</td>
<td>Sarhad</td>
</tr>
<tr>
<td>Jinnah Postgraduate Medical College Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>King Edward Medical College Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Military Staff College Library</td>
<td>Quetta</td>
<td>Baluchistan</td>
</tr>
<tr>
<td>National Commission on Historical and Cultural Research Library</td>
<td>Islamabad</td>
<td>Federal</td>
</tr>
<tr>
<td>National Defense College Library</td>
<td>Rawalpindi</td>
<td>Punjab</td>
</tr>
<tr>
<td>National Institute of Public Administration Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>National Institute of Public Administration Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Naval Defense College Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>Packages Ltd. Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Pakistan Administrative Staff College Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Pakistan Industrial Development Corporation Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>Pakistan Insurance Corporation Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>Pakistan Institute of Development Economics Library</td>
<td>Islamabad</td>
<td>Federal</td>
</tr>
<tr>
<td>Pakistan Institute of Nuclear Technology</td>
<td>Islamabad</td>
<td>Federal</td>
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<tr>
<td>Punjab Textbook Board’s Reference Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Rural Academy Library</td>
<td>Peshawar</td>
<td>Sarhad</td>
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<tr>
<td>State Bank of Pakistan Library</td>
<td>Karachi</td>
<td>Sind</td>
</tr>
<tr>
<td>Veterinary Research Institute Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>Water and Power Development Authority’s Central Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>West Regional Laboratories Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>*Institute of Education &amp; Research Library</td>
<td>Lahore</td>
<td>Punjab</td>
</tr>
<tr>
<td>†Institute of Islamic Research Library</td>
<td>Islamabad</td>
<td>Federal</td>
</tr>
</tbody>
</table>

Muhammad Aslam is special librarian, Punjab Textbook Board, Lahore, Pakistan.
Actions of the Board and Cabinets
Jan 27–29, 1977

The SLA Board of Directors and Chapter and Division Cabinets met Jan 27–29, 1977, in Seattle, Wash.

Canadian Copyright—The Toronto Chapter president requested, on behalf of SLA members in Canada, assistance in the distribution of information concerning the revision of the Canadian Copyright Law. The Board agreed to provide such assistance. To this end the Association Office will acquire and distribute to SLA members in Canada, copies of the Working Paper [on the Canadian Copyright Law] when it is available. Other information on this topic will also be distributed during the process of revision of the Canadian Copyright Law.

1980 Winter Meeting—Houston, Texas, has been approved as the site for the 1980 Winter Meeting. The dates have been set for Wed/Jan 30 through Fri/Feb 1, 1980. The change to scheduling Winter Meetings for Wed to Fri was made in response to a suggestion by Chapter Cabinet members.

Future Winter Meetings

1978 Wed/Feb 1–Fri/Feb 3
Indianapolis Indianapolis Hilton
1979 Thu/Feb 1–Sat/Feb 3
Tucson Marriott Tucson
1980 Wed/Jan 30–Fri/Feb 1
Houston Rice-Rittenhouse Hotel

Guidelines for Papers—A Special Committee has been appointed by the President, with the approval of the Board, to recommend Guidelines for the Presentation of Papers at SLA Conferences. The committee consists of Judy Field, chairman; Rod Casper and George Barlow.

1978 Conference Theme—The 1978 Conference Program Chairman for Kansas City submitted the theme “Managing for Change.” It was heartily approved by the Board.

Professional Development Coordinator—A Special Board Committee recommended that the possible new staff position be designated as Professional Development Coordinator rather than Education Coordinator. It is proposed that the duties include education, research, professional growth, salary surveys, preparation of proposals for grants, and study of the financing for education and research functions.

The recommendations of the Special Board Committee were supported by both the Chapter and Division Cabinets. The Committee suggested that unused funds donated for the Government Information Services Committee (GISC) Survey and contributions to the Research Grants-in-Aid Fund be used as “seed money” for the initial employment of a part-time Coordinator.

Conference Papers—The Board decided to require that all Divisions, Committees, or other Association units sponsoring papers at an Annual Conference distribute a copy of the “Call for Papers” to each invited speaker. This action was taken to insure that all authors understand that the right for first refusal belongs to Special Libraries.

Idle Money in Chapters and Divisions—The Chapter Cabinet recommended that the pooling of unused funds for resolving the accumulation of large reserves by some Chapters without an expressed purpose not be implemented until the Chapters had an opportunity to identify the purposes of their reserve or project funds.

The Division Cabinet recommended that the Association continue the yearly allotment for those Chapters and Divisions which have reserves of $5,000 or $10 per member, whichever is lower, but that the allotment be paid only on request. If an allotment is not requested and used during the year, the amount allotted would revert to the General Fund. The Division Cabinet further recommended, however, that no action be taken on this proposal until June 1977.
The Board referred the entire matter of Chapter and Division finances, as well as the recommendations of the Chapter and Division Cabinets to the Finance Committee for a report in June 1977.

Chapter Activity—The revised boundaries for the Heart of America Chapter were approved. The Chapter area includes the States of Kansas and Nebraska, and a number of adjacent counties in the State of Missouri.

The boundaries for the Cincinnati and Dayton Chapters were also established.

Two Chapters wished to have their names amended. Since there was no objection to this from neighboring Chapters, the Dayton Chapter has become the Central Ohio Chapter. The Greater St. Louis Chapter is now, more precisely, the St. Louis Metropolitan Area Chapter.

A petition for the formation of a Rhode Island Chapter was approved by the Board dependent on a more precise statement of its boundaries.

Division Activity—The “Guidelines for the Formation of Provisional Divisions” has been revised. The minimum number of signatures on a petition has increased from 5 to 15.

The Natural Resources Division has affiliated with the ASIS SIG/BC (Biological-Chemical Information). The report of this action fulfills the requirements of the SLA Bylaws for affiliation of a Division with a related group.

Positive Action Liaisons—On the recommendation of the Chapter Cabinet, the Board approved in principle “Guidelines for Chapter Level Positive Action Liaisons.” Among the suggestions in the Guidelines are: “Present local programs emphasizing Positive Action . . . Serve as a resource person for minority recruitment efforts of nearby graduate library schools and other institutions of higher education . . . Recruit minority special librarians and information specialists into active participation in SLA.”

Committees—The name of the SLA Special Committee on Copyright Law Revision has been changed to the SLA Special Committee on Copyright Law Practice and Implementation. The change is effective immediately.

The Association Office Operations Committee definition has been amended by adding: “The Committee shall be the Trustees of all SLA Benefit Plans.” Such a definition of trustees is required by federal law (ERISA, The Employee Retirement Income Security Act).

A recommendation was accepted by the Board that the Membership Committee be dissolved effective June 1977, because the work of this Committee is being handled by the Membership Department.

Role of Chapter Members at Conference—The revised report of the Chapter Cabinet Task Force on the Role of Chapter Members in the No-Host Chapter Conference was accepted by the Cabinet. The thrust of the report concerned the continued involvement of all SLA members in Conferences and Conference Program planning.

IFLA—The Board agreed to the recommendations of the 7 U.S. Member-Associations of IFLA that a “U.S. IFLA Committee” be authorized with a representative from each Member Association.

The Board approved the payment of $1,000 as 1977 SLA dues to IFLA. The dues to be paid by each U.S. association are to be proportional to its own dues income.

The Board also approved the recommendation of the apportionment of the 20 votes assigned as a block to the U.S.A. by IFLA: ALA-9; ARL-4, SLA-3, Medical LA-1; AALL-1; Music LA-1; ARLIS/NA-1. The number of votes is proportional to the annual dues paid to IFLA by each Association.

The SLA Board approved the concept of payment of a proportional part of the travel expenses of a U.S. member of the IFLA Executive Board, if one is elected. (The Boards of the other U.S. Member-Associations also approved the above matters.)

Representative Appointed—The Council of National Library Associations (CNLA) has formed the CNLA Ad Hoc Committee on Copyright Law Practice and Implementation. This broadens the base of input on law to the entire library community in the U.S. The CNLA committee will prepare statements on library concerns about the implementation of the new U.S. Copyright Law for consideration by CONTU. Dr. F. E. McKenna has been designated by the Board as the SLA member of this committee, Richard E. Griffin was designated as the alternate member. Earlier, the CNLA had appointed McKenna as the chairman of the CNLA Committee.

Documentation Abstracts, Inc.—In 1966 SLA, the American Society for Information Science, and the Division of Chemical Information of
the American Chemical Society, each contributed seed money for the establishment of *Documentation Abstracts* (now *Information Science Abstracts*). Because the only subsequent involvement of the Association has been the nomination of two members for the Documentation Abstracts, Inc., board, the SLA Board has terminated this relationship with *Information Science Abstracts* effective Apr 1, 1977.

### Scholarship Fund

**Contributions Received Jan – Dec 1976**

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<tr>
<th>Contribution</th>
<th>Amount</th>
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<td>H. W. Wilson Foundation</td>
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<tr>
<td>Anonymous Trust Income</td>
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<td>Southern California Chapter</td>
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<tr>
<td>Science-Technology Division</td>
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<tr>
<td>San Francisco Bay Region Chapter</td>
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<td>ICI United States, Inc.</td>
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<td>Heart of America Chapter</td>
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<td>Standard Oil Company of California</td>
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<td>In Memory of Mary Louise Alexander (Advertising &amp; Marketing Division)</td>
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<tr>
<td>Biosciences Information Service (BIOSIS)</td>
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<tr>
<td>In Memory of Deceased Division Members (Business &amp; Finance Division)</td>
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<tr>
<td>Connecticut Valley Chapter</td>
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<td>E. I. du Pont de Nemours &amp; Company</td>
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<td>Elizabeth T. Hinkle</td>
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<tr>
<td>In Memory of Deceased Chapter Members (Illinois Chapter)</td>
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<td>Helen E. Iseminger</td>
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<tr>
<td>In Memory of Donald Wasson (New York Chapter)</td>
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<td>Texas Chapter</td>
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<td>In Memory of Philip S. Ogilvie (North Carolina Chapter)</td>
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<td>South Atlantic Chapter</td>
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<td>In Memory of Alice Rankin (Bergen-Passaic Special Librarians)</td>
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<td>Carolyn S. Kirby</td>
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<td>Xerox Corporation</td>
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<tr>
<td>Barbara J. Armstrong</td>
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<td>In Memory of Alice Rankin (Marguerite Bebbington)</td>
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<tr>
<td>In Memory of Ann Mijnlieff (Cleveland Chapter)</td>
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<tr>
<td>Joseph Dagnese</td>
<td>25.00</td>
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<tr>
<td>In Memory of Donald Wasson (Jean Deuss)</td>
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<tr>
<td>In Memory of Rocco Crachi (Shirley Echelman)</td>
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<tr>
<td>In Memory of Herbert Berggruen (Michigan Chapter)</td>
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<td>Betty Nevin</td>
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<td>Pacific Northwest Chapter</td>
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<tr>
<td>Total Other Contributions Under $25.00</td>
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Total Contributions Jan-Dec 1976 $14,287.63
New York a Decade Later

Special Libraries Association

68th Annual Conference
New York, New York  Jun 5–9, 1977

In 1967 when SLA last met in New York City for the Annual Conference, Frank McKenna was President of the organization, the headquarters hotel was the Commodore, and it can be recalled that there was dreadful monotony to the luncheon menus. Now, 10 years later, we shall be gathering again on Manhattan Island for our annual feast of intellectual stimulus, fellowship, and fun. If you attended the Conference in '67, you will certainly find that a lot of changes have occurred. Dr. McKenna is our very able Executive Director, the headquarters hotel will be the New York Hilton (the Commodore is closed and is awaiting complete renovation) and the food possibilities, both ethnic and otherwise, seem quite endless. If 1967 seems eons before your time and this is to be your first New York SLA Conference, you have many exciting and interesting places and events awaiting you.

As you know from the story in last month's issue of Special Libraries, the Conference will be jammed full of vital and fascinating programs and there will be a great many interesting exhibits to visit, but you will want to see more than the inside of a hotel, so if you have not already done so, begin making plans now.

The Sunday New York Times can be a great guide to coming events, therefore you might start checking it regularly. The New Yorker and New York Magazine and Cue will also give you some hints, while some people will find much of interest in The Village Voice. And do not think that everything is going to be costly. There are lots of things—fun things—that are free or very inexpensive. One of the continuing delights that is absolutely without charge is "people watching." Sit in the Channel Gardens of Rockefeller Center and watch the never ending stream of humanity, along with the flowers.

But do not limit yourself to a small midtown area. Be sure to visit Lincoln Center with its redesigned Avery Fischer Hall. Take a ride on the revived double decker buses on Fifth and Madison Avenues. A trip down to the World Trade Center is something not to be missed. If you cannot get a reservation for a meal at Windows on the World (often required weeks in advance), the cocktail lounge there offers absolutely fabulous views in various directions—without reservations. And there is an observation roof there as well as the famous ones on the Empire State Building and at Rockefeller Center.

If sports are your thing, you will be interested in visiting the new Yankee Stadium and perhaps the great new Meadowlands Sport Complex in nearby New Jersey. For you museum buffs (and everyone else) some time spent in the new Egyptian Wing of the Metropolitan Museum of Art would be well worthwhile. The new Cooper Hewitt Museum of the Smithsonian Institution is a delight. On Jun 7th, there will be...
mounted two exhibits, one on American architectural drawing and one on models of palladian villas.

An aerial tramway ride to Roosevelt Island in the middle of the East River, and back, is great fun. If you miss out on the Circle Line boat tour around Manhattan Island, you can still get a pretty good feeling for the skyline from the harbor by taking the old faithful Staten Island Ferry ride.

Broadway, Off-Broadway and Off-Off-Broadway offer many tempting theatrical adventures, and you will probably be hard put to make a selection. If you cannot decide in advance, you might want to take a chance at Times Square Theater Center located at Broadway and 47th Street, where reduced rate tickets for that day are on sale for many shows.

New York has hundreds of other places and events that are entertaining, educational, exciting! Information about them will be available to you at the Conference, along with a restaurant guide, a library guide, and a group of qualified experts to answer your questions.

When it comes to weather and what to wear in New York, we can only guess at the former and toss in a few suggestion for the latter. June temperatures can range from the 60s to the upper 80s, and it is sometimes quite humid. But the meeting rooms and
restaurants will be air conditioned, so lightweight clothing is best, supplemented by a jacket, sweater, or shawl. Simple, informal clothing is entirely appropriate for nearly all occasions; but as most ladies know, a long skirt can be very useful for the theater or restaurants. Men will find that jackets and ties are demanded in some of the more elegant places, and such dress is appropriate, if desired, for most occasions.

Sunglasses and rain wear can prove to be equally in order, and a pair of comfortable shoes is imperative. New York is for sightseeing, shopping, museum visiting. All made happier if your feet are, too.

New York Conference Committee

CHAPTERS & DIVISIONS

Alabama—The Feb 18 meeting was held at the Tennessee Valley Authority Technical Library, International Fertilizer Development Center in Muscle Shoals. Dr. Donald L. McCune gave a speech and slide presentation, and members toured the center.

The Chapter sponsored an all-day workshop on Apr 6 at the Governor’s House in Montgomery. Topics discussed were research, education, and cooperation.

Baltimore—On Jan 12 a New Year’s reception was held at Peabody Library honoring retired Chapter members and Chapter sponsors.

The topic at February’s gathering was the new Copyright Law.

Boston—Chapter members and guests attended the Jan 26 Sci-Tech meeting at the Center for Astrophysics Library in Cambridge. Joyce Rey and Estelle Karlin conducted tours of the library facilities; a reception followed.

An all-day workshop on Mar 5 entitled “Catching Up with the Computer” was held at Harvard University’s Gutman Library.


There are pools in some of the motels and “Y”s for those of you who want swimming, while a subway and bus trip will get you to some of the city beaches. And there is always the world famous Jones Beach, a little more than an hour away.

So come one, come all, dress as you would at home for a similar event, and enjoy New York. You will find that it is truly a great place to visit, and we who work here find it an exciting place to live in, too.

Cincinnati—The Chapter held its annual recruitment meeting on Jan 18 at the Cincinnati Law Library Association. Members and prospective members were given a tour of the law library.

In March the Chapter celebrated its fiftieth anniversary with a dinner at the University of Cincinnati Faculty Club. John M. Lindsey, professor of law and director of the Chase Law Library, spoke on the implications of the new Copyright Law. Shirley Echelman, SLA President-elect, also addressed the group.

Cleveland—The topic for discussion at the meeting on Feb 8 was “Techniques of Computerizing a Newspaper Index.”

Shirley Echelman, SLA President-elect, was the guest speaker at a Mar 31 dinner meeting held at Cleveland Engineering and Scientific Center.

Colorado—On Jan 18, 75 SLA members assembled at the Colorado State Library to learn about that agency’s purpose and programs.

The February joint dinner meeting with the Rocky Mountain Chapter of the National Micrographics Association featured a presentation on the new Copyright Law by lawyer Cheryl Hodgson. Members toured the Denver Regional Mormon Genealogical Library and the Arthur Lakes Library at the Colorado School of Mines (Golden) in March.

Special Libraries
A business meeting was held Apr 7 at the University of Denver. Ed Sayre gave a slide and tape presentation on the Central Colorado Library System, of which he is director.

Connecticut Valley—The Feb 2 Chapter meeting was held at the U.S. Naval Underwater Systems Laboratory, New London. “Focus: The Environment” was the topic; Valerie Ralston of the University of Connecticut Library, Joe Miller of Yale University Forestry and Environmental Studies Library, and David Hanna of the Naval Underwater Systems Center were the speakers.

The Chapter met in March at the Connecticut State Library, Hartford, to hear Bruce McSheehy and Susan Southworth, both law librarians, discuss “The Legislator and the Librarian.”

The Apr 5 dinner meeting at Yankee Silversmith Inn, Wallingford, featured a “Workshop on Leadership” presented by University of Connecticut Prof. Siegmar F. Blamberg.

European—The second issue of BibliEurope, the Chapter newsletter, was published in March. Michèle Carter Burdet is the editor.

Florida—A luncheon meeting on Feb 8 at the Carling House, West Palm Beach, was addressed by Dr. William Ryan, Florida Atlantic University, on “How Can You be a Better Manager?”

Heart of America—On Jan 22 the Chapter held its annual scholarship fund raising event which featured a wine and cheese tasting party and an auction.

The topic of the February meeting was “The Practical Side of On-line Systems.” Discussion groups on 12 data bases were held.

A joint meeting on networking took place Mar 18 with the Health Sciences Library Group of the Greater Kansas City Area.

In April the Chapter toured the University of Kansas Libraries, Lawrence. The various special libraries housed on the KU campus include the Spencer Research Library, Watson Library, and the Science Library.

Hudson Valley—A workshop seminar on “Management Strategy for the Special Librarian” was given Mar 30 at the White Plains Public Library. Robert Neiman of Robert H. Schaffer & Associates, Stamford, Conn., conducted the seminar.

Illinois—A joint meeting was held with the Chicago Library Club on Jan 13. Plans for the White House Conference on Libraries and Information Science were discussed.

The February dinner meeting at the Chicago Bar Association included a talk on the new Consumer Price Index by a representative from the Bureau of Labor Statistics.

The Chapter’s Education Committee sponsored a data base workshop on Mar 22 at the same location.

Kentucky—A March 17 luncheon meeting at the J.B. Speed Art Museum, Louisville, was followed by a tour of the museum and its library.

Long Island—In February the Chapter visited the Glick Bookbinding Corporation in Long Island City.

Louisiana—A joint luncheon meeting was held Feb 12 with the Caddo-Bossier Library Club at the Sheraton Inn, Shreveport. The group toured the Louisiana State University Medical Center Library and the Northwestern State University School of Nursing Library. Dr. Melvin F. Johnson, Jr. of LSU spoke on “Some Thoughts about Medical Ethics.”

Michigan—A joint meeting on the topic of serials was held Feb 8 with the Michigan Library Association’s Academic Division.

“How to Help Patrons with Legal Research Problems” was the subject under discussion at a dinner meeting on Mar 23 at Michigan State University. Panelists were Peter Kempel and Linda Schweitzer of Cooley Law School and Charlotte Dunneback and Charles Wolfe of the State of Michigan Law Library.

Mid-Missouri—The Chapter sponsored a census workshop on the afternoon of Jan 20 at Daniel Boone Regional Library, Columbia. Leading the discussion were Meryl Atterberry, Maggie Johnson, Pat Timberlake, and Judy Wolfe, all of the Missouri State Library, Sally Schilling of the University of Missouri-Columbia, and Ken Wright of the U.S. Bureau of Census, Kansas City.

SLA president Mark Baer addressed the Mar 16 dinner meeting. The topic of his talk was “The Special Librarian in the For-Profit Sector.”

Mid-South—The winter meeting took place Jan 22 at the Memphis Public Library. Brodart, Inc., presented a seminar on library operations entitled “What’s New in Technical Processing: The State of the Art.”
Minnesota—The Jan 19 Chapter meeting was held with the ASIS Chapter at the Commodore Hotel, St. Paul. Jack Shannon of M&W, Inc., gave a talk on “Micrographics.” Chapter members heard Dr. George Shapiro, professor of speech at the University of Minnesota, speak on “Communication in the Reference Interview” at the February meeting.

The Mar 24 joint ASIS/SLA meeting was addressed by Audrey Grosch, ASIS president-elect, and Shirley Echelman.

Montreal—The Chapter held a recruitment night in February with Shirley Echelman as guest speaker. Over 100 people attended, half of them students or nonmembers.

New Jersey—The topic at the Feb 10 meeting was “Job Evaluation Systems: Implications for Librarians.” At the end of March, the Chapter held a workshop on problems on-line searchers are having with the various computerized data bases.

MEMBERS IN THE NEWS

Maria Ackley, formerly with Ernst & Ernst, Cleveland, Ohio . . . appointed librarian, Preformed Line Products, Cleveland.

Ruth Ahl, formerly at the University of Wyoming . . . now life sciences librarian and associate professor of library science, Purdue University, Lafayette, Ind.

James Arshem . . . promoted to head, Science and Engineering Department, Denver Public Library.

Catherine I. Bahn, principal recommending officer, Science and Technology Division, Library of Congress . . . retired.


Martha Boaz, University of Southern California, School of Library Science, Los Angeles . . . named head, Council of Deans and Directors, Association of American Library Schools.

Patricia L. Brown, formerly senior researcher, Battelle Memorial Institute, Columbus, Ohio . . . appointed manager of scientific services, Travenol Laboratories, Deerfield, Ill.

Elizabeth Casellas, associate professor and director, Graduate School of Business Administration Library, Tulane University, New Orleans, La. . . . retired.

Rosa Conlon, senior information scientist, Avon Products, Sullen, N.Y. . . . promoted to section manager, technical information center.

Zella Dallas, librarian, Preformed Line Products, Cleveland, Ohio . . . retired.

Dianne Danard, formerly at New Brunswick Research and Productivity Council Library, Canada . . . now at the Geological Survey, Ottawa.

Fred Dudden, formerly with the University of Denver . . . appointed gerontological resource librarian, Davis Institute for the Study and Care of the Aging, Denver, Colo.


Doreen Fraser, assistant professor, School of Library Science, Dalhousie University, Halifax, Nova Scotia, Canada . . . granted one year’s sabbatical leave to study the library needs of those in the fields of gerontology and geriatrics.

Bernard Fry, dean, Indiana University Graduate Library School . . . named general conference chairman, 1977 annual meeting, American Society for Information Science.


Mary C. Grattan, formerly librarian, Texas Advisory Commission on Intergovernmental Relations, Austin . . . named public information officer, Virginia State Library, Richmond.
Nancy Greer, Denver Public Library . . . named chairperson, CLENE advisory committee.

Sally Grenville . . . appointed to a post at Memorial University, St. John's, Nfld., Canada.

Linda D. Griffin, student, University of Missouri-Columbia . . . named to "Outstanding Young Women of America."

Audrey Grosch, associate professor and special projects officer, University of Minnesota Libraries, Minneapolis . . . American Society for Information Science president-elect, begins term as president October 1977.

Jane Hammond, formerly law librarian, Villanova University Law School, Pennsylvania . . . named librarian, Cornell University Law Library, Ithaca, N.Y.

Bonnie Hilditch, formerly science reference librarian, University of California at San Diego . . . now at Washington University, Pullman, Wash.

Albertha J. Hoeck, formerly with the Indianapolis Star & News . . . appointed librarian, Meidinger and Associates, Louisville, Ky.

Solang Gignac Huggins, Denver Botanical Gardens . . . appointed treasurer, Central Colorado Library System.


Ann Jenkins, formerly with Systems Science and Software, La Jolla, Calif. . . . now supervisor of library services, Kelco, Division of Merck & Company, San Diego.


Mary Lou Kovacic, formerly with Cargill, Inc., Minneapolis, Minn. . . . now librarian, 3M Technical Library, St. Paul.

Dennis Lampkowski, formerly at Science Library, Queens College, City University of New York . . . appointed information services librarian, Lee Coombe Memorial Library, Memorial Sloan-Kettering Cancer Center, New York.

Dr. Lawrence E. Leonard, formerly chief, Catalog Department, Stanford University Libraries, Calif. . . . appointed library services program officer, Region IX, U.S. Office of Education, San Francisco.

Mildred Lowe, St. John's University, Library and Information Science Department, Jamaica, N.Y. . . . appointed convener, Library History Group, Association of American Library Schools.

Barbara MacDonald, formerly with Great Western Sugar Company's research library, Denver, Colo. . . . now reference librarian and on-line retrieval specialist, Arthur Lakes Library, Colorado School of Mines, Golden.

Sister Lauretta McCusker, Rosary College, River Forest, Ill. . . . serving as chairperson, Task Force on Accreditation Issues, Association of American Library Schools.


Eleanor Perlin, librarian, Northwestern National Life Insurance Company, Minneapolis, Minn.... retired.

Annette Phinazee, North Carolina Central University, Durham ... elected co-chairperson for 1978–79, Council of Deans and Directors, Association of American Library Schools.

Dr. Fred Wilburn Roper, School of Library Science, University of North Carolina at Chapel Hill ... appointed assistant dean.

Robert A. Seal, circulation/automation librarian, University of Virginia Science/Technology Information Center ... promoted to director for administrative services, university library.

Vivian Sessions, formerly director, Center for the Advancement of Library-Information Science, Graduate School of the City University of New York ... appointed director, Graduate School of Library Science, McGill University, Montreal, Que., Canada.

Ted Slate, chief librarian, Newsweek ... elected trustee, New York Metropolitan Reference and Research Library Agency.

Sandra Spurlock, formerly assistant librarian, Millipore Corporation, Bedford, Mass.... now assistant science librarian, Massachusetts Institute of Technology Libraries.

Esther Stokes, formerly head librarian, Environmental Protection Agency, Region IV Library, Atlanta, Ga.... appointed to faculty, Emory University Graduate Division of Librarianship, Atlanta.

Stephanie Stowe, Denver Museum of Natural History ... named a member of the board, Central Colorado Library System.

Robert N. Ting, formerly head, Science and Engineering Library, State University of New York at Buffalo ... now librarian/special assistant to the dean, Faculty of Engineering and Applied Sciences.

Johan van Halm, formerly head, VMF-Stork, Amsterdam, Netherlands ... presently consultant, Amersfoort, Netherlands.


Herbert S. White, professor of library science, Indiana University Graduate Library School, Bloomington ... elected to four-year term, governing council, International Federation for Documentation.

Dr. Dennis B. Worthen, formerly program coordinator, clinical drug program, Case Western Reserve University, Cleveland, Ohio ... named manager of information services, research operations division, Norwich Pharmacal Company, Norwich, N.Y.
WASHINGTON LETTER

White House Conference

It now looks as though the National Commission on Libraries and Information Science (NCLIS) will receive the full $3.5 million requested for the White House Conference on Library and Information Services. Members and staff of NCLIS were grilled by the House appropriations subcommittee, which subsequently voted to make the funds available during fiscal year 1977. The Senate is expected to follow suit.

In the event you have never testified before a congressional committee, the following dialogue gives you some of the flavor. It took place in the Rayburn House Office Building on Feb 8, 1977:

Mr. Flood*—With respect to that White House Conference on Libraries that you hope to hold, what is magic about that figure you were talking about, $3.5 million? That is the full amount authorized. Could you not get along with less than the full amount authorized?

Mrs. Moore—No, sir, I do not think we can. We started out with a request for $10 million. This is down to the $3.5 million.

Mr. Flood—This is the full amount authorized?

Mr. Trezza—The White House Conference is a 3-year activity, a single appropriation for the entire time.

Mr. Flood—How many White House Conferences have there been of one type or another in the last 10 years?

Mr. Burkhardt—There have been four or five.

Mr. Flood—There have been quite a few of them?

Mr. Trezza—There have been four or five concerning different subjects but none regarding library and information services.

Mr. Flood—You know the tangible benefits derived from these are pretty hard to find. Why is this one going to be any better than the others?

Mr. Burkhardt—They vary, Congressman. The White House Conference on Youth was considered pretty much of a waste of time and a fiasco. The one on the aged I think was considered a very good and constructive one. It led to a number of very concrete proposals. I do not think one can generalize about them being good or bad. The important thing, I think, is that one has to plan them in such a way and take the time to plan them in a way that will not just produce a list of needs, “We need this, more money, more money.” What we need is to plan to improve services in all quarters.

Mr. Flood—I know. But why is this conference going to be any better than the others?

Mrs. Moore—I think it is going to be better because the core of this White House Conference is the supporting state conferences. We are going to organize those state conferences. Each state will conduct its own conference and only state conference delegates will be approved to be national conference delegates. We have tried to learn from other conferences’ mistakes so we will do a better job. As I said in my testimony, they will all be studying some basic issues.

Mr. Flood—All right. That being the case, why do you need all of these funds for 3 fiscal years all at one time for a White House Conference? What would happen if we just appropriated funds for the first 2 years now and then take a look at the rest of it next year? What is wrong with that?

*The characters in order of their appearance: Rep. Dan Flood (D-PA), ch., appropriations subcommittee; Bessie Boehm Moore, vice-ch., NCLIS; Al Trezza, exec. dir., NCLIS; Frederick Burkhardt, ch., NCLIS; Rep. Bob Michel (R-IL), ranking Republican on subcommittee.
initely have the $3.5 million. If we received, say $2 million, and then we gave out the grants of $1.1 million to the states and we will not get the balance, we could not have a White House Conference. So there is no way we can do the planning without knowing the total amount of money available to us and to live within the budget and within the ceiling. This means we cannot spend any more for the total time, because it is a one-time appropriation. The other way, it is conceivable, we could come back and say we did not figure right and we need more. It has the great advantage of Congress saying to us, $3.5 million is the limit. We can then definitely commit $1.1 million directly back to the states.

Mr. Flood—You are going to have a staff for that White House Conference; is that going to be completely distinct and separate from your regular staff?

Mr. Trezza—Absolutely.

Mr. Flood—How many people are you talking about, that staff?

Mr. Trezza—that staff will start—

Mr. Flood—How many people?

Mr. Trezza—At any given time it will vary.

Mr. Flood—How many maximum?

Mr. Trezza—At any one time, I would say 24.

Mr. Flood—Where are these people coming from?

Mr. Trezza—from Washington and different parts of the country. Clerical staff will probably come from the Washington area.

Mr. Flood—are you going to phase out that staff after the conference is over?

Mr. Trezza—Exactly, it works up to 24 or so, back down to 8, and then zero. It is temporary staff.

Mrs. Moore—Another thing, too, Mr. Chairman, the matter of recruiting the staff and having the right kind of people to do this job, we need to know; this would be difficult if you gave us money enough only for the state conferences. We need the staff to assist the states, in doing a good job with the state conferences.

Mr. Flood—I understand that.

Mr. Michel—I was going to ask the question, are we going to get just a big laundry list from this White House Conference? Because that is my general inclination on all these conferences... in the end, mark my word, it will end up with a pack of recommendations on how many more programs have to be funded by the Federal Government. They are simply funding advocates out there in the country ready to besiege us with more requests for dough.

Mrs. Moore—You may be right about some of that, you may be right that may happen... but in the process, the states are going to have to look at their own programs and say, “this is our responsibility.”

The entire hearing is printed as Part 2, Supplemental Appropriations for Fiscal Year 1977, Committee on Appropriations, House of Representatives, 95th Congress, 1st Session. Ask your Senator or Representative to send you a copy.

Sara Case
HAVE YOU SEEN?

The Extek Model 410 fiche cutter is available from Extek Microsystems, Inc. The high speed unit will cut 120 4 in. x 6 in. positive or negative fiche per minute. Other features include accommodation of silver, diazo, and versicular films in widths from 21/2 in. to 5 in. and thickness from 2 to 10 mm; solid state circuitry for reliability; and compactness (351/2 in. x 12 in.). A fiche counter, foot switch, and core adaptors are available as accessories. Contact: Extek Microsystems, Inc., 6955 Hayvenhurst Avenue, Van Nuys, Calif. 91406.

An economical, easy to assemble literature shelf tray, designed to organize literature for quick and accurate access is available from Bankers Box. It is constructed of corrugated fiberboard and features a finger hole which enables literature to be propped up for easier access. Available in letter or legal size, the tray can be used for shelving or desk top stacking. Write: Bankers Box/Records Storage Systems, 2607 North 25th Avenue, Franklin Park, Ill. 60131.

The Vior Model 20 monochrome video projector accepts video signals from any source—off-the-air broadcasts, cable TV, video/tape cassette players, closed circuit, and computer terminals. It projects clear, bright pictures on screen widths from 21/2 to 20 feet and can be used for either front or rear screen projection. A miniature control box permits remote control up to 200 feet. The lightweight, compact unit is easy to set up and operate. Contact: Vior Corp., 1280 Route 46, Parsippany, N.J. 07054.

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STAFF DEVELOPMENT


The author presents a detailed description of a step-by-step Training and Development Needs Analysis Survey. The model used addresses validation of specific job requirements and the minimal acceptable standards for satisfactorily meeting these requirements, the evaluation of the employee's effectiveness, and the difference between standards and employee effectiveness.


The author proposes an integrated systems approach to manpower development. A model adapting the MBO process to manpower development programs is both real and lends itself to use in library organizations.


Many blame today’s workforce, especially the younger element, for downplaying the “work ethic.” Job enrichment, participatory management and job autonomy, while important in teaching work values, cannot replace self-discipline and personal responsibility, the development of which can be significantly aided by supervision.


A model is described which attempts to access performance after a management development program. The authors believe that “the effectiveness of development will be ultimately measured not only through attitude and behavioral changes but also through job results.” The model is simple and approaches the task realistically and could be used for other kinds of training programs.


Although not directed at libraries, the author presents a type of training which is essential for library employees. A modified program of the one presented would help the library relate better to the community it serves.


The author presents three needs of both subordinates and managers: need for recognition, role fulfillment, and success identity. If left unsatisfied, they can have a negative effect on performance. Managers who meet the challenge of becoming involved can help satisfy their own personal needs as well as those of their subordinates.


This program requires a different view of the employee by the organization and stresses a continuing improvement and/or acquisition of skills rather than the more traditional “repair” approach to employee development. Training programs should be expanded with the end product being increased productivity.


An employee’s work efficiency and performance effectiveness are determined by how he manages his time. The authors conducted an activity–time distribution study and describe how the data from the study was used to identify workers with low motivation or in need of training.


When used correctly, counseling can be an important factor in improving employee performance. It is important in every organization that each supervisor develops his counseling skills, and the author presents some guidelines for effective counseling.


Management should be as concerned with Herzberg’s “maintenance factors” as they have been with his “motivators.” He never meant for management to ignore either since studies show that both are essential to employee satisfaction and productivity.
COMING EVENTS


May 19-21. American Society for Information Science, 6th Mid-Year Meeting . . . Syracuse University, Syracuse, N.Y. Theme: The Value of Information. Contact: Dean Taylor, School of Information Studies, Syracuse University, Syracuse, N.Y. 13210.

May 20-24. Health Sciences Communications Association, 19th Annual Convention . . . Indianapolis. Theme: Interpersonal Human Relations: Biomedical Communications Management and Professional Development. Contact: Elmer Friman, Indiana University, School of Medicine, 1100 W. Michigan St., Indianapolis, Ind. 46202.


Describes collections in major U.S. and Canadian libraries and institutions covering the following countries: Albania, Bulgaria, Czechoslovakia, East Germany, Greece, Hungary, Poland, Romania, and Yugoslavia.


Includes listing of companies, directory, geographical and personnel listings, and a copy of the questionnaire used to compile the directory. Single copy available free of charge from Ethel Tiberg, EEI, 90 Park Ave., New York, N.Y. 10016.


Deals with the subject of management relating to the Caribbean environment, with specific reference to Trinidad and Tobago. For further information, contact: The Editor, MDC Business Journal, Management Development Centre, P.O. Box 1301, Port of Spain, Trinidad, West Indies.


Contains approximately 5,000 entries. Most of the entries are new, and the remainder update entries in the earlier two volumes.

(77-048) "Networking Practices and Priorities of Special and Academic Librarians: A Comparison." Murphy, Marcy. 22p. (University of Illinois, Graduate School of Library Science, Occasional Papers, No. 126, Dec 1976). $2.00 ISSN 0073-5310

Reports on what special librarians perceive to be the barriers to interlibrary cooperation and on what some of the actual networking practices of special librarians today are. Available from: Publications Office, 249 Armory Bldg., Graduate School of Library Science, Univ. of Illinois, Champaign, Ill. 61820.


Study designed to determine how access to Canadian government publications could be improved. Based upon responses to questionnaires sent to all Canadian academic libraries serving universities with full-time enrollment of at least 500, public libraries serving communities of at least 30,000 population, all community college libraries in Ontario, and all provincial government printing offices.


Papers presented at the Allerton Park Institute held Nov. 9-12, 1975, Allerton Park, Monticello, Ill. Available from: Publications Dept., Graduate School of Library Science, Univ. of Illinois, 249 Armory Bldg., Champaign, Ill. 61820.


Office of Technology Assessment's analysis of the need for improving the government's information systems to support policymakers.
This volume updates and significantly expands the information contained in Scientific, Technical, and Engineering Societies Publications in Print 1974-1975. Some 369 societies are included (108 of these appeared in the first volume, and over 60 new national scientific and engineering societies in the United States have been added). Medical and health-related societies have been added, and the geographic coverage has been enlarged to include national societies in Canada and Great Britain and international societies regardless of location.

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The Societies each society is listed alphabetically. Full-address and information on ordering and paying precede the list of books, periodicals, nonprint materials, etc. published by the society or available from it.

Author Index All identifiable authors, editors, compilers, and translators of the publications are listed here, as well as names appearing in the titles of biographical works and commemorative volumes.

Subject Index Included in this index are key words taken from the titles of the publications listed, as well as entries derived from the names and subject coverage of each society.

Periodical Index Titles appearing in the "Periodicals" section of each society's list can be located here in one alphabetical sequence.

Compiled by James M. Kyed,
Head, Engineering Libraries, Massachusetts Institute of Technology,
and James M. Matarazzo,
Associate Professor of Library Science, Simmons College

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