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# SPECIAL LIBRARIES

FEBRUARY 1960, VOL. 51, NO. 2

Survey and Bibliography of

Microreproduction Forms, Equipment,

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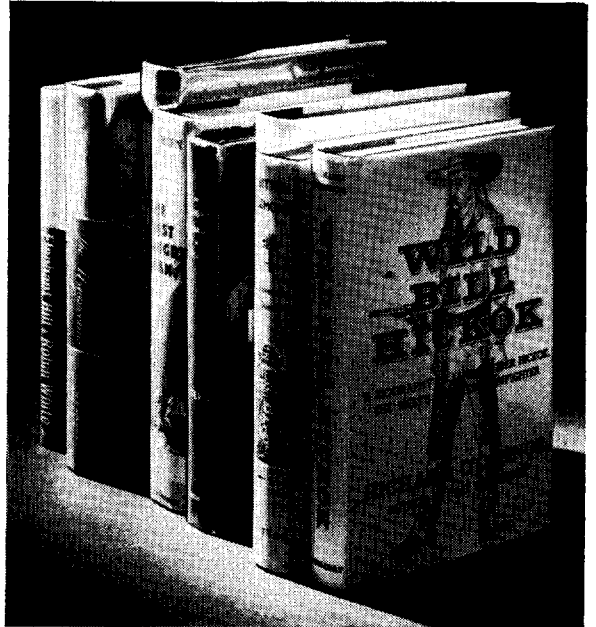
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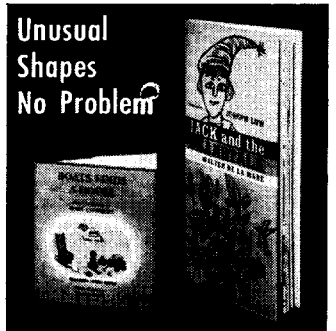


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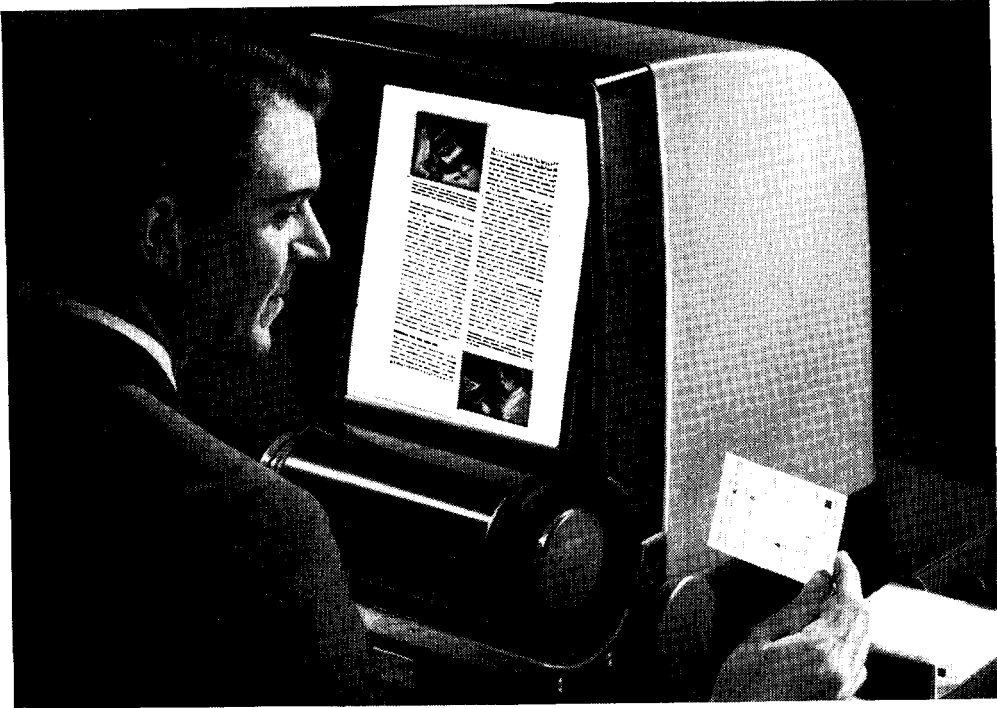
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*Official Journal  
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*Volume 51, No. 2*

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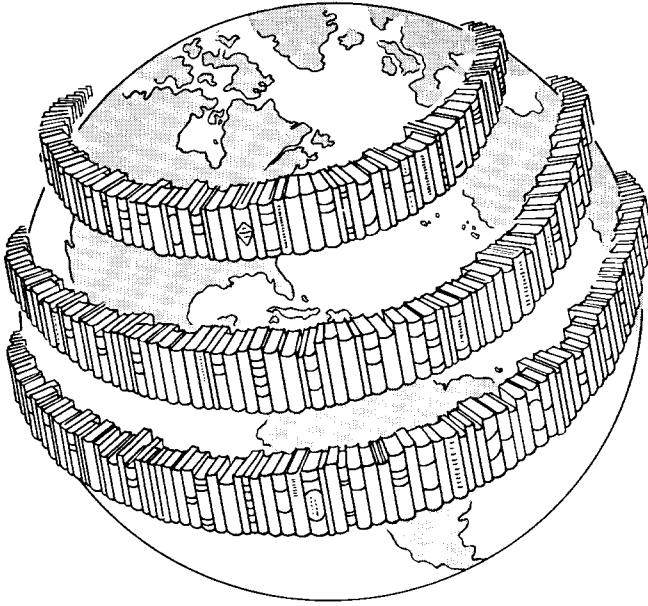
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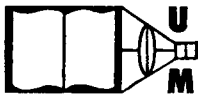


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# Micro-Opaques

GERALD J. SOPHAR, Washington Representative  
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IT IS, I believe, quite clear to most people when they discuss photography in general that a film is one thing, a print another. This is true of amateur photography, commercial photography, aerial photography and so forth. Unfortunately, in the field of micro-photography the two ideas have become badly muddled. I, therefore, repeat a frequent plea that librarians differentiate between microfilm (transparent film) and micro-opaques (opaque prints).

If I do nothing else in this paper I am going to straighten out the two concepts. Chronologically, microfilm came first, and in this sense it is primary to the micro-opaque. The same is true of the latest snapshot of Aunt Susie. However, you don't consider the negative of Aunt Susie's image any more than the means to the print.

The micro-opaque, because of its later development, unfortunately became conceptually a sub-class of microfilm. Actually, neither the film nor the print are sub-classes of one another, any more than the printed page is a sub-class of an offset plate.

## Achievements of Micro-Opaques

The micro-opaque has grown up during the last decade. Its importance to the special library is growing more and more. Tremendously important disseminations have been accomplished through its use; a few are:

1. *The Atomic Energy Commission*: Over the past half decade more than nine million Microcards have been manufactured for the Atomic Energy Commission for distribution

to depository libraries. Currently, approximately 300 sets of Nuclear Reports are prepared on a continuing basis. In addition, the Microcard Foundation also sells sets of unclassified AEC reports to commercial consumers.

2. *The Armed Forces Technical Information Agency*: Although ASTIA will not publish the total amount of documents it produces each year in Microcard form, it is willing to state that at least 95 per cent of its documents are carded. Unlike the Atomic Energy Commission, for whom the Microcard Corporation operates a plant at Oak Ridge under contract, ASTIA manufactures its own cards.

3. *The International Geophysical Year*: The Microcard Corporation is at present micro-filming approximately one million pages of observations gathered in Geneva by the World Meteorological Organization. These data are converted into some 18,000 Microcards per set and are the means for disseminating data gathered from 2,500 observation stations. The first data was on its way to recipients before the end of the International Geophysical Year.

4. *Readex Microprints*: A unique combination of photography and offset printing makes available such items as the *Proceedings of the Society for Experimental Biology in Medicine* and *Atoms for Peace, the International Conference on the Peaceful Uses of Atomic Energy-Proceedings*.

5. *The Microlex Corporation*, which is now a division of the Lawyers Cooperative Publishing Company, has to date published a considerable amount of legal material on the Microlex format. To the best of my knowledge, until now it has confined itself to legal material.

---

The following four papers comprised a panel on *Microreproduction—A Survey of New Equipment, New Techniques and Old Problems*. This program was presented on June 1, 1959, at the 50th SLA Convention in Atlantic City, New Jersey, and was sponsored by the Documentation, Metals and Science-Technology Divisions.

6. *Wildlife Disease Journal*: I have left this item for the end of this brief listing, not because it is the least important, although if the volume of work is the measure used, it certainly is. To my way of thinking, however, this journal is one of the most important documentation breakthroughs that has occurred in years. Its impact on special libraries at the moment is as light as the touch of a feather. In time, if those who conceived the project and those who supported it are correct in their assumptions, the feather will turn into a sledge hammer.

### Observations on Journal Publishing

I should like to discuss further the history of this journal and its implications.

Approximately three years ago, I was invited to attend the New Orleans Conference of Biological Editors, sponsored by the American Institute of Biological Sciences, and to present some ideas I had to its Committee on New Media. Before attending this meeting, I tried to take a good, hard look at Microcards to try to find out what they really were. Did they always have to stay in the background as a sort of alter ego to conventional publications? What was so sacred about current journals? More important, what were the faults of journals? I saw many; I will recite but a few.

First, I think one thing should be admitted—a journal is nothing but a magazine with several unique and unpleasant qualities. It has a small circulation and a highly informed reading public looking for specifically informative articles. Scientific articles to be of value must report all the procedures and methods that led to a final observation or discovery, not just the discovery itself. This usually requires considerable space. Any journal editor will freely admit that regardless of what reasons are given for cutting an article, the specter of space is always looking over his shoulder. So, the more editors are forced to cut articles appearing in their journals, the less valuable the journal becomes to its own society and the more valuable it becomes for researchers in allied disciplines. For example, a botanist must be generally informed about entomology. As a botanist, he learns from the *Journal of*

*Entomology*. He learns little from his own journal. He knows the subject too well, and he obtains any real, substantial information in his field from letters, monographs and direct communication.

Another inherent fault in the journal is that the subscriber does not only overpay for a small circulation journal, but that he also purchases much extraneous, and to him useless, material. In most states, tie-in-sales are considered illegal. Evidently this is not true with journals. Purchasers are forced to purchase all of ten or a dozen articles in order to obtain one. If separates are available the separate approaches the cost of a single issue of the journal. Still, the desire for separates persists. This is evident by the heavy interchange of these items among scientists. Most of the scientific information emanating from the government through government contractors is distributed on the need-to-know basis and in this manner.

All of the foregoing facts and many others brought me around to this basic conclusion: by publishing a Microcard version of a journal, a publisher is only being redundant. He may be helping the librarian to save space or he may be performing a service by bringing once again into print issues of journals no longer available in their original form. However, in the long run he is only reducing the physical size and shape of a print of the journal; he hasn't really changed a single thing. The substance of the problem remains the same and a few new elements are introduced. It was after considering all these factors that I began to conceive of the micro-journal. The micro-journal, very simply, is a journal with all the papers in Microcard form, accompanied by abstracts in macroform. Only an original manuscript is prepared for micro-photography. No other copies, except possibly a carbon or two, are made. The final micro-opaque cards become the journal.

Many people told me that this could not be done and why. All of the why-nots were psychological and not logical.

In New Orleans it was brought to my attention that Dr. Ralph Cleland of Indiana University had had much the same idea. He presented this idea at the symposium cele-

brating the 30th anniversary of *Biological Abstracts*. The discovery pleased me no end. In work such as this, there is always the danger of being enthusiastic and uninformed. I suddenly found that I had the aid and support of a prominent scientist and, because of this, the support of many of his colleagues and the American Institute of Biological Scientists. I would like to quote you part of Cleland's paper in which he first introduced his idea in biology:

"There is one trend, somewhat unrelated to those we've already discussed, which scientists have not manifested to as great an extent as they might have done, a trend which I hope will become more evident in the future. This is toward a better control of the output of scientific literature. The editors of *Biological Abstracts* have been wrestling in recent months with problems arising from the present lack of control trying to decide on what portions and what proportions of the total literature to cover. Realizing the hopelessness of adequately covering the total biological output at the present time, the tendency is for each office to write for the benefit of the specialists in his field, of whom there may be only a handful. This paper is then perpetrated on a much larger scientific population, most of whom are not interested in details and some of whom could not understand them even if they wanted to. They are helping defray the cost of typesetting and printing of vast arrays of materials, useless or unintelligible to them, in order to find a few papers which are understandable and useful. This appears to me to be a dreadfully wasteful process and one which will become more and more intolerable as the science grows, if it is not controlled. What most of us want for papers not squarely in our restricted field, if we want anything, is the digest of results and conclusions from which we can obtain quickly and easily a general understanding of what is being discovered. We wish to be kept abreast of the major advances in the variety of fields other than our own but have not the time or energy to wade through the masses of verbiage required to gain this objective. The summary of the average paper does not suffice—it is too condensed, and

often states not what the major facts and conclusions are but what the problems are which are considered in the paper. I can foresee, even hope, that the time will come when the standard journals will publish only digests, averaging perhaps 10 per cent of the length of present day papers, but will have an arrangement with the microfilm or Microcard publishers whereby those authors who wish to make available more detailed data may do so by such means. Instead of sending out reprints and hoping to get in return papers in which they are interested, researchers will find Microcard copies of papers that they wish to have in extenso. This will cost them less than buying and distributing reprints, and the collections of papers which they accumulate this way will be of their own choosing and will occupy only a small fraction of the shelf space occupied now by reprint collections. The cost of publication of standard journals will be greatly reduced and the time spent by researchers in trying to keep up with the literature will be considerably shortened."<sup>1</sup>

The New Orleans Conference of Biological Editors made the following recommendations among many others: "The tremendous proliferation of scientific literature makes publication in some microform ultimately inevitable . . . that groups of biologists planning to establish a new journal be urged to undertake instead a pilot project utilizing some form of new medium, such as macroform in brief coupled with micro-publication in detail. The cooperation of professional librarians in any such undertaking is most advisable."<sup>2</sup>

Space does not permit me to outline the interesting story of the development of this journal. Readers probably already know that *Wildlife Disease* has been made possible by grants from the Council on Library Resources, Inc. and the National Science Foundation. However, the press releases concern-

---

1. CLELLAND, Ralph E. *Biological Abstracts and the Literature of Biology—A Symposium in Celebration of the Thirtieth Anniversary of the Founding of Biological Abstracts*, 1957, p. 32.

2. GLASS, H. Bentley. The New Orleans Conference of Biological Editors. *AIBS Bulletin*, vol. 7, 1957, p. 21-3.



ing the journal do not mention Dr. Hiden Cox, Dr. Fred Cagel and Dr. Bentley Glass, the men whose imagination guided this journal from a dream to reality. Dr. Carlton Herman, President of the Wildlife Disease Association, deserves separate and distinctive recognition as the man who convinced the membership of the organization to undertake this important test and who has, step by step, guided the journal from idea to being.

The first edition of the journal was 800; the second, 1,000. More than 850 subscriptions have already been sold.

After all this thinking, effort and selling, it is quite discouraging to see an article in the April 1, 1959, issue of the *Library Journal* titled "Scientific Journal in Microfilm—An Experiment in Publishing."

Perhaps I have spent more time than necessary on the *Wildlife Disease* journal. However, it is only because I feel that the other micro-opaque projects I have mentioned, large as some of them are, are still very special even to the special library. Only a small percentage of special librarians are concerned with these programs.

Special librarians have become adept at handling unusual literature and unusual media. If *Wildlife Disease* proves valuable,

they can expect more and more publication of material in microform only. The unusual will become the usual, and the special librarian will have to make certain decisions: 1) How many readers will be required to adequately service library users? 2) Will microform readers be kept in the library and will the user be required to do his reading in the library, or will the readers be placed in offices and laboratories so that the users can read micro-articles at their desks? 3) Will the user be able to build his own reprint collection? 4) Will the knowledge that any particular item which has been converted to microform is never really out of print change the librarian's buying habits? Will he, like a department store buyer, purchase heavily on certain items for distribution and hold back on the purchase of other items, secure in the knowledge that there is always a source of supply available?

I think I have made it quite clear that my belief is that the micro-opaque will in time be as common an item in the special library as the conventional printed page. The micro-opaque is tough and very much abrasion-resistant; it is inexpensive; it has an eye-readable title; it is unitized where required and it is never out of print.

## Microfilm as a Library Tool

EUGENE POWER, President

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KARSH

TO A LARGE degree, the application of microfilm to specific library problems has been determined by the particular and peculiar characteristics of the microfilm process. In this discussion I am primarily concerned with the function of a process and what can be accomplished with it rather than with any new development in terms of equipment. The basic characteristics of microfilm can be summarized as follows: 1. It is not too difficult technically to produce in acceptable quality the 35mm micro-

film generally used by libraries. Furthermore, materials and equipment are readily available, widely distributed and relatively inexpensive. An operator with less than one week's instruction can produce acceptable film.

2. The microfilm process is a straight line cost process, which means that the cost of making two copies is double the cost of making one and the cost of ten copies multiplies the single cost by ten. This applies to either negative or positive copies. Because of this straight line cost, it is possible to produce one copy at a time as the need arises, something which heretofore could not be done at reasonable rates.

3. Microfilm is low in cost, a characteristic which makes the production of single copies economically practical. Based on present rates, a negative copy costs as little as  $1\frac{3}{4}$  cents per page, and multiple positive copies from this negative cost as little as  $\frac{1}{4}$  cent per page, including the cost of the negative.

4. The quality of a microfilm image made from properly prepared negative and used on a good reading machine is the best of any of the micro images. It is, for many purposes, a satisfactory substitute for the printed page and large size photographic illustrations. As to convenience of use and durability, there are advantages and disadvantages to each of the microforms; it is a toss-up as to which has the greatest advantage.

5. Microfilm has the great capacity, when properly prepared, of being as permanent as rag paper. This has been verified by the National Bureau of Standards and other organizations and is the basis of its acceptance as a means of preserving permanent and vital records.

6. Microfilm occupies not more than 10 per cent of the space of the original material from which it was made and usually less than this amount, assuming a reduction ratio of from 10 to 15 times.

#### Library Uses

Because of these characteristics (and I doubt that there is any difference of opinion on them), which are based on the special peculiarities of the process, microfilm has been used for various library applications for many years. A few of these applications are:

1. Materials such as books, manuscripts, periodical articles and so forth from distant libraries may be provided on microfilm.

2. Microfilm preserves deteriorating materials such as newspapers, journals and books. I would estimate that today 90 per cent of the daily newspapers published in the United States are microfilmed on a current basis. Newsprint is peculiarly susceptible to deterioration, and to a lesser degree, but nonetheless just as inevitably, so are books and journals.

3. Microfilm is especially useful in reducing the space occupied by frequently used li-

brary materials. Again, newspapers are a prime example.

4. Microfilm permits the original publication of specialized material, for which the demand is uncertain or limited, such as doctoral dissertations, at a reasonable price.

5. Microfilm can be used as an inexpensive means of protection for valuable books and manuscripts against excessive wear or loss.

Recent developments built around 35mm microfilm have constituted a really important breakthrough for libraries, and I discuss this today only from the point of view of libraries and not from the point of view of the preservation of corporate records or engineering drawings, for example. I refer especially to the development of the Minnesota Mining and Manufacturing Company's 3M reader-printer and to the Copyflo continuous printer of Haloid-Xerox.

#### Recent Developments

With the 3M machine a library patron can make a print on paper of whatever appears on the reader screen simply by pushing a button. Within the limitations of the size of the screen, the lenses available for various degrees of enlargement and the quality of the image produced, this reader-printer fills a very real need that can not be filled as cheaply and conveniently in any other way. Only from microfilm can such an image be produced.

A much more important development is the Xerox-Copyflo printer, which is one of the most exciting developments of the past 15 years, for it is now possible to accomplish an entire group of services not formerly possible. With the Copyflo, continuous enlargements from 35mm film at ratios of from 7 to 22 times can be produced at a cost of about  $6\frac{1}{2}$  cents per foot of paper. From this web of paper can be made books or reproductions of journals. The same set of economics that applies to microfilm applies to this method, namely, that it is a straight line cost process whereby copies are produced one at a time at a uniform cost per copy.

A Xerox copy can be printed on any kind of paper without special treating or coating or it can be printed on a special master paper

stock from which multiple copies can be made on a small offset press. It is now possible to produce out-of-print books in full size, bound in paper or hard covers, one copy at a time, at a cost of 3½ cents per page (with an additional charge for the hard cover). Already some 1200 or 1300 titles have been produced in this way, and more are being added all the time. What this really means is that every book (or manuscript, for that matter) is in print and is available to the scholar at rates slightly higher than rates for current books in a bookstore. We have thus gone the complete circle, from the manuscript book to the small edition of the early printing press, to the large edition of modern printing presses, to the smaller edition of ordinary offset printing techniques and back again to the single copy produced on demand. If we stop to realize that all books since the beginning of printing, with but few exceptions, may now be had by the scholar in his own study in a form he can read on the street car or take to bed with him and at a cost comparable to current bookstore prices, we will then have some conception of the importance of this development.

The American publishing system is such that unless there is a sale of 350 copies a year of a particular title, it is not worthwhile to keep that book in print. However, expanding library and educational systems, including the special libraries of industry, require a source of books published in the past; the Xerox-Copyflo printer is one means of supplying this demand.

#### **Future Problems and Projects**

I should like now to look to the future and discuss a problem which is facing every library in the United States and may be one of the most crucial problems of our society. I believe that by utilizing the 35mm microfilm technique described just now, this problem can be solved. Just as newspapers deteriorate after 20 years or so, so do most books and journals, though at a somewhat slower rate. This deterioration is just as inevitable as the passage of time, and unless we are able to solve the problem, our civilization will be a

lost civilization 200 years from now. The records and reports of our science, our history and our culture will have deteriorated into dust.

Fortunately, there is a solution. I suggest that the libraries of the United States systematically, and in cooperation with each other, reduce to 35mm film all books 56 years or older, beginning with those printed since 1870 when woodpulp paper was first used. If each library would contribute just one per cent of its book budget each year, over a relatively short period of time these books could without difficulty be reduced to 35mm microfilm. The negatives should then be stored in a central depository, in conjunction with sufficient equipment and technical facilities so that copies could be produced on demand, as positive microfilm or as Xerox copies in the form of bound books or as printed copies made from Xerox masters. This depository I have given the somewhat sentimental title of "A Cultural Memory."

Books that are deteriorating could be photographed and preserved while they could still be copied. The space requirements would be relatively small. Microfilm is permanent and can be duplicated easily and economically. The various types of reproductions, which in the end stem from the 35mm film, whether produced one at a time or in multiple quantity, all indicate that this is the form in which the records of our culture should be preserved. In this way we would leave to our children's children a record that would be detailed, accurate and lasting.

Such a program as the one I have outlined requires nation-wide organization, the sponsorship of a national organization and a continuing effort for at least five years as a test period. This plan is now in the hands of an ALA committee.

I have not intended to imply that microfilm is the only practical microreproduction method. Each technique has its place; each is most useful under certain circumstances. But I do believe that generally the types of problems I have described here can best be solved by microfilm properly prepared and properly used.

# The Microfiche

DR. I. A. WARHEIT, Former Chief, Technical Library Branch  
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THE STANDARD 35mm microfilm was originally adopted for library use because it was a standard used for other photographic processes that lent itself for serial photography. Although it was recognized that roll film was inconvenient for the user, it was adopted because it was the most convenient to process. Film, cameras and processing equipment were all standard and available, and only minor modifications were necessary to adapt roll film for microfilming.

## Development

The user, especially where he had to make frequent reference to microfilmed material, found roll film difficult to handle except for long texts such as newspapers. Special packaging had to be developed to handle short strips and to provide legible indexing heads. Reels were inconvenient to handle, especially to find scattered frames. From a user's viewpoint, a sheet form in some standard size was preferable. It could be handled like a file card, easily stored and quickly found. Where active filing and a high reference factor are necessary, a sheet form performs much better than roll film. It is only by having standard film strips—unitized film—or special jacketed strips that roll film could be handled conveniently for shorter texts.

A flat film sheet with a series of frames or images on it can be made in one of several ways. Individual items can be photographed by a step-and-repeat camera directly onto a sheet of film, or a plate can be stripped up from a roll film and copies printed from the plate. The latter two-step process is used in printing Microcards and is suitable where many copies are to be made. The former, the one-step process, is much more economical where only a single copy is required.

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Since giving this paper, Dr. Warheit has joined the Advanced Systems Development Division of International Business Machines Corporation in Washington, D. C.

In spite of the advantages of a sheet film format, it was not economically feasible until a step-and-repeat camera was developed. Such a camera was not too difficult to develop. Some special models used for photo-offset work had been built, but it was not until 1950 that a step-and-repeat camera designed specifically for making micro-records on cut film was developed in Holland. This was 22 years after the Library of Congress started the first of its major micro-filming projects and six years after Fremont Rider began his active promotion of Microcards. With the development of this special camera, the microfiche as we know it today became practical.

What is a microfiche? It is a cut film, which may be 9 x 6 inches, 3 x 5 inches or 9 x 12cm (3½ x 4¾ inches) in size, on which are photographed anywhere from 8 to 80 images depending on the reduction used and the size of the original copy. Generally speaking, microfiches are either 3 x 5 inches or 9 x 12cm in size and carry from 40 to 50 images of book or journal pages on each sheet. Along the top of the film is a title or running head in normal size type. The 'fiche itself is kept in a white envelope, the front of which is cut lower than the back so that the title on the film can be easily read.

The two sizes, 3 x 5 inches or 9 x 12cm, cause some difficulty. The former is a standard library card file size but is not a standard film size. The latter is a standard film size but not a standard card file size. The tendency in Europe to date is to make microfiches on the 9 x 12cm film.

Since its introduction in 1950, the microfiche has spread from Holland to France, Germany, Scandinavia and recently the United Kingdom. Although the U. S. Atomic Energy Commission did import one of the first microfiche cameras, it is only very recently that camera and readers for the micro-

fiche really became available in the United States. It seems quite evident that the microfiche is going to find a place in American scholarship, business and industry, and therefore it is something the librarian will have to use. In trying to estimate what its position will be, it must be compared with existing forms of microreproduction.

#### Advantages and Disadvantages

I have already compared it with roll film. The essential advantage of the microfiche in this instance is where files receive a high level of reference use. Wherever the record is consulted frequently, a file of microfiches is to be preferred over roll film. Even though the latter may be put into special envelopes and plastic holders, it will generally cost more and be less convenient than a simple microfiche.

Also for the individual scholar, a simple sheet of cut film is easier to handle and to keep with other records than roll film. It is in the long, seldom used records such as bank checks, library circulation records, security files of complete records, newspaper files and master reproduction negatives that roll film may be advantageous.

When compared with *micro-opaques*, that is Microcards, Microprint, Microlex, and so on, the microfiche has certain advantages and some disadvantages. It has been estimated, for example, that it is cheaper to make microfiches for 10 copies or less but cheaper to make Microcards if the run is to exceed 10 or 15 copies.<sup>1</sup>

Additional copies and enlargements can be made from microfiches. It is very difficult to make a satisfactory reproduction from a Microcard. Although microreproduction has been considered a form of secondary reproduction, for many libraries and other institutions the microform is often the only available record. The U. S. Atomic Energy Com-

1. This is not universally accepted. The commercial producers of *micro-opaques* have developed efficient, high production equipment and can produce *micro-opaques* very cheaply. On the other hand, there has been little development as yet for microfiche equipment, and it is suspected that present production costs for microfiches are relatively higher.

mission, for example, distributes certain of its reports on Microcards. AEC depository libraries all over the world frequently must supply copies of AEC reports in their files. They find it practically impossible to fill such requests for reports on Microcards. A microfiche, on the other hand, can be readily used to prepare additional copies. Other microfiches, Microcards or full size blow-ups can be easily prepared using ordinary contact printers or enlargers, equipment available in every photography shop.

In addition, the readers for microfiches can be built cheaper, lighter and give a better image than Microcard readers. The microfiche reader is built on the diascope principle and operates by transmitted light. The Microcard reader, like the magic lantern, operates on the epidiascope principle by reflected light. In the latter case it takes a great deal of careful engineering to prevent hot spots and to give a good image. This has made Microcard readers relatively expensive and bulky. Microcard acceptance in the past has been held back, especially abroad, because of the lack of an ideal reader at an acceptable price. Exploiting this advantage, the Microfiche Foundation in Holland has laid great emphasis on making microfiche readers as cheap as possible, especially to students and independent scientific workers.

The cheapest model, called the Dagmar, is a "mirror to table-top" type, the image being thrown onto a white or slightly colored paper, according to the choice of the user. As the mirror can be raised and lowered on its rods, magnification is variable. If placed on its back, the reader will project onto a wall, thus enabling material to be viewed by several people simultaneously. Enlarged photocopies on paper can easily be made with it. The bulb, a Volkswagen headlamp, is cheap and easily interchangeable. Illumination is so good that the reader may be used in a normally lit room. The microfiche holder is made of two plates of glass, hinged on one side. Magnets hold it in place over the aperture and the 'fiche can be easily moved about until the desired page is found. A separate roll film holder is also provided. This clips on to the casing and has no pressure plates which might scratch the film.

The whole apparatus can be dismantled and, except for the rods holding the mirror, can be packed into an eight-inch cube pack weighing approximately 12 pounds.<sup>2</sup>

It takes some mechanical skill to set up this inexpensive reader and there are some complaints that the magnetized film holder leaves something to be desired. A more advanced but similar reader is the Huygens. The latter comes in a convenient small case like a portable typewriter. The mirror is in the lid so, to put the unit into operation, it is necessary only to open the lid, insert the microfiche, plug the cord into an electrical outlet and lay a piece of white paper on the table. The United States price of the Huygens will be about \$125. This reader is favored by the International Documentation Centre. Both readers are being imported into the United States and we shall, therefore, have an opportunity to compare them.

Microcards, on the other hand, have certain advantages. They are cheaper for series publishing. If, as mentioned, more than 10 or 15 copies are made, the card is cheaper than the 'fiche. Film is soft and is easily damaged, destroying the image unless Diazo film is used. Microcards on the other hand have proven to be extremely durable under nearly all conditions of climate, handling and abuse.

### Microform Publishing

The expectation is that the microfiche will tend to be used for single copy purposes if the price is reasonable and where secondary reproduction may be expected. The Microcard should find favor where many copies of a text are needed and where frequent use will subject the material to wear and abuse. In Holland, therefore, the tendency is not to supply microfiche from stock. The major emphasis is on the making of microfiches to order for personal use. Some publishers in England, Sweden and France, however, do advertise microfiche editions of periodicals, books and monographs, generally offering

2. Description of Dagmar taken from brochure "The Application of the Microfiche in Holland" by Dr. L. J. van der Wolk.

the customer a choice between Microcards or microfiches.<sup>3</sup>

The International Documentation Centre (IDC) in Stockholm is active in promoting the publishing of microfiches and issues a journal called *Micro-Library* for \$4 a year, which is essentially a catalog of materials available on microfiche and Microcard too. The list of titles is quite an eye opener for the librarian. Many manuscripts, incunabula and other rarities of the Royal Library in Stockholm and the University of Uppsala are listed. Of interest is the program to record all of Carl Linnaeus' writings. The most extensive lists are in theology, classical philology and botany. There are, in addition, complete runs of journals in physics, chemistry, geology and biology, including such well known titles as *Physikalisches Zeitschrift*, *Reviews of Modern Physics*, *Transactions of the American Institute of Chemical Engineers*, *Helvetica Chimica Acta*, *Kolloidzeitschrift*, *Mikrochimica Acta*, the standard Russian chemical journals, *The American Geophysical Union*, *The Bulletin of the Geological Society of America*, *Geophysics*, *Biochemisches Zeitschrift*, *Hedwigia*, *American Journal of Physiology*, *Aluminium*, *The Journal of Geography* and many more.

With many publications available on microfiche, it is to be hoped that various libraries and industrial firms will make use of the microfiche. The possible advantages and uses of this will thus be explored and comparisons with the existing forms will be possible. With data based on actual use and experiment, we shall be able to determine the real utility of the microfiche and its place as a form of microreproduction.

3. Masson et Cie, 120 Blvd. St. Germaine, Paris VI, France; Microteque-France, 44 Rue de Chanzy, Paris XI, France; Iota Services, Ltd., 38 Farringdon, London E.C.4, England; International Documentation Centre, Postbox 405, Stockholm—Valdingby, Sweden.

The March **Special Libraries** will be a special issue featuring military libraries and librarianship. It will also contain the recently completed SLA Personnel Survey.

# Production and Uses of Microfilm in the Library of Congress Photoduplication Service

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THE LARGE RESEARCH libraries in the United States are both users and suppliers of microfilm. The recently published *Directory of Institutional Photoduplication Services in the United States*<sup>1</sup> lists some 77 institutions that offer a photocopying service. All of the institutions listed have microfilming facilities. When speaking of library uses of microfilm, therefore, it becomes necessary to separate, on the one hand, the acquisitions and reader service and, on the other, the production of microfilm.

This paper will be devoted to the latter aspects of microfilm uses, with emphasis on recent applications as exemplified at the Library of Congress Photoduplication Service. My discussion will narrate briefly the more traditional uses of negative microfilm in the area of documentary reproduction in library and research institutions and will conclude with descriptions of more recent techniques employed in the Library of Congress Photoduplication Service.

## Operation of Photoduplication Service

As a starting point in this discussion of the more traditional uses of microfilm in the area of documentary reproduction, it may be well to summarize briefly some of the routine procedures followed in the Library of Congress Photoduplication Service.

1. Compiled by Cosby Brinkley, Head, Photoduplication Service, University of Chicago Library, under the auspices of the Copying Methods Section of the American Library Association's Resources and Technical Services Division. Chicago: University of Chicago Library, 1959, \$1.

All correspondence is routed by the Office of the Secretary of the Library to the Photoduplication Service Business Office. There a staff member analyzes every piece of correspondence. Analysis at this point includes the preparation of an order blank and assignment of a control number. In addition to carrying a control number, the order blank describes the exact type of photoreproduction ordered and lists the bibliographic citations.

Once clerical processing of each request is completed, the order blank, together with all correspondence, is made available to a crew of searchers whose duty it is to locate the requested document, remove it from the shelf, mark the appropriate pages and forward it, together with the order blank, to the microfilm laboratory. Depending on its format, the document may be microfilmed on a flat-bed or rotary camera, both of which are rated to produce microfilm conforming to American Standards Association standards. The annotated order blank is filmed at the beginning of each order. This is essential for later identification of each order, since quantity production is achieved by microfilming literally dozens of orders on each 100-foot roll of microfilm and developing it on a continuous type processor.

After successful completion of processing, the microfilm negative is ready for inspection to determine its adherence to bibliographic and technical specifications and finally for packaging into the individual order. Although every effort is made to employ mass production techniques from receipt of the request until mailing of the completed microfilm, the keynote of the entire operation is individual attention and service. The amount of personal attention to details re-

quired for even a routine request is substantial. It is literally true that the raw materials of three feet of microfilm are still "cheap," but what goes into the production of those three feet is relatively expensive.

The majority of microfilm orders placed with the Photoduplication Service are for short runs of material—generally a chapter or section in a book, an article in a periodical, selected manuscript letters and the like. The negative microfilm prepared is supplied to the purchaser, since the microfilm represents only a fragment of a document and would have little value to anyone other than the purchaser.

There are, however, occasional orders for an entire book or periodical or newspaper file or manuscript collection, the negative microfilm of which should be retained—either because the original material would not permit another filming or because of its inherent research value and scarcity. When this is the case, the Library of Congress retains the right to supply the purchaser with a positive microfilm copy. The negative is retained for the Permanent Record Microfilm Collection.

Although the 30,000 rolls of microfilm in the Library's Permanent Record Microfilm Collection may loom large in the eyes of the casual observer, production of this type has not, in general, bulked large in the operations of the Photoduplication Service. This is true too of other library and research laboratories. The bulk of long-run microfilming is handled by commercial microfilm laboratories and, in one instance, as a cooperative venture of subscribing libraries. This venture, known as the Association of Research Libraries Foreign Newspaper Microfilming Project, provides for the acquisition of approximately 100 leading foreign newspapers on a current basis.

In contrast to occasional large scale projects, the Library of Congress Photoduplication Service has made itself readily available to serve research needs by producing microfilms of materials in the Library's collections for which there is only limited demand. Such materials are microfilmed on an advance subscription basis, with the cost of preparing the relatively expensive negative fully amor-

tized among subscribers. By way of example, the Service has in this way microfilmed the papers of several of the Presidents, including Polk and Jackson, and, more recently, 13 early Soviet newspapers, four nineteenth century District of Columbia newspapers, 16 Chinese journals and, lest they be lost to posterity, the proceedings of the Democratic and Republican Party National Conventions. The proceedings of both parties, incidentally, have proved to be exceptionally popular items.

### **Microfilm as a Means to Micro-opaques**

Up to now I have discussed the more traditional and familiar applications of microfilm in the area of documentary reproduction. At this point, I wish to begin the discussion of a different and ever growing use of negative microfilm. Whereas the production of microfilms for their own sake at one time constituted the major uses among research, it is now true that the production of microfilm for "procedural" use is rapidly gaining a position of prominence—that is, microfilm produced as an intermediate step in the production of micro-opaques or, more especially, in the production of enlargement prints either on photosensitive paper or by the electrostatic process.

Experience in the Library of Congress Photoduplication Service indicates that the place of micro-opaques in library and research institutions' microfilming facilities is often misunderstood by librarian and layman alike. In reply to the question, "Do you make Microcards in the Photoduplication Service?" the answer, "No," initially elicits an expression of bewilderment and shock, followed by a look of regret that the Library of Congress is so out of step with the times. A short discussion on the philosophy of micro-opaques, however, speedily sweeps away the image of a photoduplication service still living in the "Dark Ages" of roll microfilm.

To be economically feasible, the production of a micro-opaque is generally predicated on the processing of a "published edition." Such publication, even in seemingly dwarf-size editions if compared with most published books, implies an element of



speculation and financial risk that is wholly alien to the financial operations of a library or research institution laboratory. As of this date, only by way of rare exception have these laboratories participated in the production of micro-opaques as an end product.

The Photoduplication Service does, however, play a role in this type of documentary reproduction. It has for some years accepted orders to prepare microfilm solely intended for use in the production of both Microcards and microprint and has thus adapted its equipment and trained its personnel. In all cases the Photoduplication Service furnishes only the microfilm to the commercial processing companies, which in turn adapt it in their own plants to their own special formats. It is extremely doubtful that the production of micro-opaques will effectively penetrate the microreproduction facilities of libraries and research institutions beyond this.

#### **Microfilm as a Means to Enlargement Prints**

The earliest application of procedural microfilm in the Library of Congress was in the production of the enlargement print by the conventional photographic process of projection printing from the microfilm strip or reel to cut sheets of sensitized paper. Obvious drawbacks of lack of speed, small production and need for manpower elsewhere necessitated a complete changeover to automatic equipment in 1948, with consequent elimination of nearly all manual methods. Images on microfilm to be reproduced in the form of enlargement prints were projected by Kodagraph continuous enlargers at the rate of 40 feet per minute to sensitized paper in reels of 825 feet. These machines were quite similar to the V-mail enlargers used during World War II. One machine accommodating 16mm microfilm enlarged at 14.6 to 1 was used mainly to enlarge library catalog cards filmed at a 15 to 1 reduction ratio. Another enlarger accommodated 35mm film for reduction ratios of 7.3 to 1 and 10 to 1. The 7.3 to 1 enlarger projected the entire image of 35mm film on 9½ inch width paper. By varying the reduction ratio at the time of filming, various size originals could be made to fit on standard width papers.

Relatively high production speed, which had been initiated by use of the continuous rolls of paper in place of the cut sheets used in earlier years, was maintained to some extent in the next step—the automatic processing of the exposed paper. The Airgraph continuous processor provided developing, rinsing, fixing, washing and drying facilities on an automatic basis.

The year 1958, however, brought to an abrupt halt the use of this entire system in the Photoduplication Service. At the end of a decade of use, microreproduction laboratories were turning to electronics and the even faster dry method of facsimile reproduction. The revolutionary process called Xerography brought major changes to the operative procedures and quantity production of the laboratory of the Photoduplication Service.

Before a decision was made to change over to new equipment, careful studies were carried out in the laboratory to select the type of Xerox machine best suited to the Library's requirements. Production trials demonstrated that the greatest economies were realized by putting all material on microfilm, then running the film through the Xerox printer. In this way, all risk was eliminated that the flow of work into the machine might not keep up with the new mechanical printer. To a laboratory tooled for continuous enlargement printing, the successful introduction of the continuous electrostatic printer permitted the almost immediate displacement of a substantial quantity of facsimile reproduction equipment.

In the wake of this "revolution" in photocopying, microfilm has made substantial gains, since the use of microfilm as an intermediary permits the reproduction not only of loose sheets but also of bound material. The flexibility of the microfilm camera coupled with the flexibility of the continuous electrostatic printer (within 12 inch width paper) permits economical reproduction of the bulk of documentary material.

One exceptionally promising use for procedural microfilming, in connection with the use of the continuous electrostatic process at the Library of Congress, is the reproduction of out-of-print library catalog cards. There

has been a persistent demand over the years for inexpensive single copy reproduction of catalog cards. The National Union Catalog has, for instance, reproduced substantial holdings of regional union catalogs through the use of microfilm and continuous enlargement prints on silver paper. Although the resulting photocopy has proved adequate from the point of view of legibility, it has never been accepted wholeheartedly by librarians, principally because the cards tended to curl. This quality of the photographic paper, plus a greyish background in the finished product, militated against wholehearted acceptance.

In the hope that continuous electrostatic prints would resolve the difficulty, the Photoduplication Service has devoted a great deal of time to developing a system to microfilm standard library catalog cards for subsequent duplication on the Xerox continuous printer. When perfected, this system will produce a library card on 100 per cent rag card stock, if necessary, entirely suitable for permanent interfiling with the usual printed cards. The keystone of the system is a microfilm camera that has been adjusted to provide sufficient overlap between each exposure so that all film is exposed between the images. The camera is permanently set over a table with the reduction ratio fixed at approximately

ten times. The cards are photographed over Plexiglass, with underlighting supplied to eliminate all shadow problems. As a final touch to the system, an index mark is filmed at the edge of the roll and located between the cards so that the roll of paper may be cut on an automatic cutter.

In concluding, it might be well to make some observations on the character of the requests received by the Photoduplication Service. A recent survey indicated that 60 per cent of all orders are placed by libraries (including special libraries) and that more than 50 per cent of all requests are in the areas of pure and applied science. The bulk of all requests are for the elusive, foreign language periodical, whose title is often screened behind a corporate entry unknown or unheeded by the researcher initiating the request.

Bibliographic difficulties notwithstanding, microreproduction facilitates and expands the use of research materials which might otherwise go untapped. In this respect, photoreproduction facilities are an essential ingredient of good library service. In performing this service, the staff of the Library of Congress Photoduplication Service is pleased to have the opportunity of assisting in some way toward the cultural and scientific advances which our country affords.

## Medical Library Association Notes

The Medical Library Association announces eight scholarships of \$150 each to students accepted for the approved courses in medical librarianship during the summer session of 1960. One scholarship each will be awarded for attendance at the summer sessions of the School of Library Service, Columbia University, July 5-August 12; Division of Librarianship of Emory University, June 14-July 22; University of Illinois Library School, June 20-July 22; and The School of Library Science, University of Southern California, June 20-July 30. Four additional scholarships will be awarded to candidates for any of these four locations. Applications for the scholarships should be made to the library school at the time of application for enrollment.

The Third Medical Library Refresher Course program will be held on Monday, May 16, preceding the Association's annual meeting in Kansas City, Missouri. Twelve courses will be offered, each three hours in length. The closing date for pre-registrations is April 1, and the registration fee is \$5 for two lectures, \$3 for one lecture for MLA members; \$10 for two and \$6 for one for non-members. For further details write Thomas E. Keys, Mayo Clinic Library, Rochester, Minnesota.

MLA is again awarding the Murray Gottlieb Prize of \$100 for the best 5000-6500-word essay written by a medical librarian on some phase of the history of American medicine. The closing date for entries is March 1, 1960.

# Bibliography on Reproduction of Documentary Information, October 1957—December 1959

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## GENERAL

### 1957

- BURKETT, J. *Microrecording in libraries: A review of present practice* (Library Association pamphlet no. 17.) London: Library Association, 1957. 55 p.
- CASON, C. S. Photocopy, microcopy, and copyright; a few recent references. *Alabama Chap Bul SLA* 4:49-50 Oct. 1957.
- KIERSKY, L. J., comp. Bibliography on reproduction of documentary information, 1955-September 1957. *Spec Lib* 48:405-09 Nov. 1957.
- , comp. Directory of manufacturers and service centers for documentary reproduction. *Spec Lib* 48:410-13 Nov. 1957.
- . General and special aspects of photoreproduction. *Spec Lib* 48:401-04 Nov. 1957.
- MCDONALD, J. The case against microfilming. *Am Archivist* 20(4):345-56 Oct. 1957.
- NEW MEXICO. UNIVERSITY. Library. *Union list of Southwestern materials on microfilm in New Mexico libraries*. The Library, 1957.
- TILTON, E. M. Microcards: Brief survey of their development and a union list of research materials in opaque microtext. Thesis (M.A.) Kent State University, 1957. 307 p. (Washington, D. C.: Microcard Foundation, 1960. \$7.50.)

### 1958

- DEVALINGER, L., Jr. Microfilmer replies. *Am Archivist* 21:305-10 July 1958.
- ESTERQUEST, R. T. Aspects of library cooperation. *C & R L* 19(3):203-08, 263 May 1958. (MILC Foreign Newspaper Microfilm Project.)
- Film for posterity. *Time* 72:80-83 Sept. 29 1958.
- Flood-soaked film record reclaimed; microfilm rolls of bank records removed from flooded buildings. *Ind Phot* 7:83 Jan. 1958.
- JONES, G. Documentary reproduction. In: *Five Years' Work in Librarianship, 1951-1955*. London: Library Association, 1958:395-401.
- LAWSON, L. R. Reusing technical information. *TAPPI* 41: supp. 155A-157A Mar. 1958. (Microfilm, Microcards and microtape.)
- LEWIS, C. M. and OFFENHAUSER, W. H. Selection of a microrecording program. *Ind Phot* 7:31-35 Apr. 1958.

- Microtexts and microrecording*; papers and discussion of a symposium held at Hatfield Technical College, Jan. 14, 1958; ch. T. G. Mercer. The College, Roe Green, Hatfield, Herts., England.
- Micro-texts and micro-recording; symposium. *Engineering* 185:155 Jan. 31 1958.
- TAUBES, E. P. Future of microfilming. *Am Archivist* 21:153-58 Apr. 1958.
- . What's in the future. *Ind Phot* 7:34-35 + Apr. 1958.
- World of Microfacsimiles. *Law Lib J* 51:355-71 Nov. 1958.

### 1959

- BALLOU, H. W. Year in microfilm. *Ind Phot* 8:52 + Apr. 1959.
- BRINKLEY, C., comp. *Directory of institutional photoduplication services in the United States*. Sponsored by Resources and Technical Services Div., ALA, 1959. (Available University of Chicago Library, Chicago 37, Ill. \$1.)
- Catalog of Microcard publications*. West Salem, Wisconsin: The Microcard Foundation, 1959 (Issued annually.)
- DIAZ, A. J. Microcards, 1944-1958: a selected bibliography. *Microcard Bul* (19):7-19 Jan. 1959.
- HALE, R. W. Reference book grows by microfilm; guide to photocopied historical materials being prepared by the American Historical Association. *Ind Phot* 8:54 + Apr. 1959.
- . The user looks at academic micro-reproduction. In: *Proc. National Microfilm Assn., Eighth Annual Meeting and Convention*, Washington, D. C., Apr. 2-4 1959:241-249.
- HENSHAW, F. C. Brief history of Library of Congress microreproduction projects. In: *Proc. National Microfilm Assn., Eighth Annual Meeting and Convention*, Washington, D. C. Apr. 2-4 1959:211-227.
- HILL, E. G. Minimum cost document reproduction in large lending libraries. *J Doc* 15(2):93-99 June 1959. (Use of Copyflo type machine to deal with loan demands.)
- LAHOOD, C. G., Jr. Microfilm for research: Applications in the Library of Congress. In: *Proc. National Microfilm Assn., Eighth Annual Meeting and Convention*, Washington, D. C. Apr. 2-4 1959:199-209.

LEISINGER, A. H., Jr. The microfilm programs of the National Archives. *In: Proc. National Microfilm Assn., Eighth Annual Meeting and Convention, Washington, D. C. Apr. 2-4 1959:229-238.*

LUTHER, F. *Microfilm; a history 1839-1900.* Annapolis: National Microfilm Assn., 1959. 195 p. bibl. \$7.50.

MEUS, U. Security on a spool. *Systems* 23(4):30-36 July-Aug. 1959.

MURPHY, R. G. Basic guide to copy processes and equipment for engineering departments and offices. *Machine Design* 31:108-15 July 9 1959.

O—P Books; cumulative list. Ann Arbor, Mich.: University Microfilms, Inc., 1959—(Issued periodically; available upon request.)

Research in microfilm. *Bol Inf Micro* 6(1):24-32 Apr. 1959 (In Italian.)

SCHMIDT, Hans. Microcard problems. *Dok Fach Werks* 7(3):83-84 Feb. 1959 (In German.)

SWANK, R. C. Subcommittee on Micro-Publishing Projects, ALA's Resources and Technical Services Div. (Letter to the editor). *Spec Lib* 50:219-20 May-June 1959.

TATE, V. D. Microreproduction. *PMI* 2(5):12 + May 1959 (General discussion.)

———. Microreproduction. *PMI* 2(9):17-18, 91-92 Sept. 1959 (Microfilm format and use.)

———. Sources of information about microreproduction. *In: Proc. National Microfilm Assn., Eighth Annual Meeting and Convention, Washington, D. C. Apr. 2-4 1959:185-197.*

———. Xerox and off-ox. *Microcosm* 5(3):1, 3, Fall 1959.

Three year index to microrecording at work. *Ind Phot* 8:34 Apr. 1959.

UNIVERSITY OF CHICAGO. Photoduplication Department. *Doctoral dissertations and master's theses* (August & December 1958 convocations) and miscellaneous long run serials on film, supplementary list no. 16. Mar. 1959. (Available from the University.)

## COPY METHODS AND PROCESSES

1957

BASSI, S. *Microfotografia.* Cremona: Athenaeum Cremonense, 1957. 19 p. (Microphotography.)

BRABAND, C. Photographic duplication of published literature for personal use. *Rev Doc* 24(4):141-48 Nov. 1957.

EGGLESTON, A. Reproducing photographs on index cards. *Spec Lib* 48:429 Nov. 1957.

Miniaturizing *Life's* picture files. *Picturescope* 5:23 Oct. 1957.

UNESCO helps to preserve rare Paraguayan documents. *Unesco Bul Lib* 11:283-86 Nov. 1957.

1958

ARDERN, L. L. Microfiche. *Lib Assn Rec* 60(5):150-52 May 1958.

BOBB, F. W. Procedure for microfilming records. *Office Exec* 33:28-32 May 1958.

BOWMAN, B. C. Xerography, possible solution to bad-paper book problem. *C & R L* 19(3):185-86

May 1958. (Method for the preservation of older materials.)

CLARK, D. L. New techniques and developments in Xerography. *In: Proc. National Microfilm Assn., Seventh Annual Meeting, New Orleans, 1958:15-26.* (Copyflo printer.)

Copying—with the Mason Polyprint. *Office Mag* 5(5):547-48 July 1958.

Copying developments. *Lib J* 83:3496-97 Dec. 15 1958.

DE HAAS, W. The microfiche. *Am Doc* 9(2):96-106 Apr. 1958.

EISENDRATH, D. B., Jr. Microfilming. *Ind Phot* 7:45 + Apr. 1958.

ELSBURY, L. S. F. Note on a filmset "Penguin." *Penrose Annual* 52:137-38 1958.

GLICKSMAN, M. and SCHACHT, R. Photocopying the easy way. *Pop Mech* 110:166-67 Sept. 1958.

HAWKEN, W. H. New trends in making prints from microfilm. *Ind Phot* 7:36-38 Apr. 1958.

Photocopying: which method and why. *Office Mag* 5(56):616-29 Aug. 1958. (Equipment available in Great Britain with list of manufacturers.)

MERTLE, J. S. Photomechanical questions. *Graphic Arts Mo* 30:162 + Jan. 1958.

SCHWALBERG, B. Polaroid films. *Popular Phot* 43:58-61 + July 1958.

THIELE, G. Expedient copying methods. *Nach Dok* 9:149-50 Sept. 1958.

VERRY, H. R. *Document copying and reproduction processes.* London: Fountain Press, 1958. 317 p.

WEBER, D. C. Developments in copying methods—1957. *Lib Resources & Tech Serv* 2(2):87-94 Spring 1958.

1959

ASHTON, G. Rapid processing of photographic materials. *Ind Phot* 8:10 + May 1959.

BALLOU, H. W. Developments in copying methods—1958. *Lib Resources & Tech Serv* 3(2):86-97 Spring 1959, bibl.

CROUIGNEAU, J. Reproduction and duplication. *Hommes et Techniques* 14(166):949-56 Oct. 1958; (167):1068-77 Nov. 1958 (In French.)

From coded tape to print: Xerographic printing. *Engineering* 187:241 Feb. 20 1959.

HAWKEN, William R. Developments in Xerography: Copyflo, electrostatic prints and O-P books. *C & R L* 20(2):111-117 Mar. 1959.

KREHL, H. Copying and duplicating in libraries and documentation centers. *Dok Fach Werks* 7(5):169-72 July 1959. (In German.)

LUDWIG, F. G. How to get the most out of your photocopier. *ODR Repro Rev* 9(10):34, 36, 46 Oct. 1959.

*Modern copying techniques for the drawing office;* papers and discussion of a symposium held at Hatfield Technical College, Jan. 27, 1959; ch. H. R. Verry. The College, Roe Green, Hatfield, Herts., England.

Polaroid slides speed test reports. *PMI* 2(11):56 Nov. 1959. (Transparencies and typewritten material are "cut" on diazo-type master sheets and copies reproduced.)

FEBRUARY 1960

Reproduction and copying; Peerless Continuous-Flow enlarging and reducing cameras; Anken "Plenacopy" photocopying process. *PS & E* 3(5): 244-45 Sept.-Oct. 1959.

SCOTT, P. Impact of plastics; Kalfax microfilm. *Ind Phot* 8:79 June 1959.

———. Miraculous bubble: a look at Kalfax microfilm. *Lib Resources & Tech Serv* 3:40-46 Winter 1959.

Static electricity prints photos; Xerographic method; illustrations with text. *Product Eng* 30:82 June 8 1959.

TATE, V. D. Microreproduction: personal microfilms. *PMI* 2(12):68, 69, 70 + Dec. 1959. (How to do-it-yourself.)

———. Microreproduction: reduction ratios: 1/100 is possible; commercial limits are less. *PMI* 2(10):28 + Oct. 1959. (Discusses documentary originals, reduction ratios and frame sizes.)

Transfer copying simplified: a month's experience with the Signet. *Office Mag* 6(64):286-290 Apr. 1959. (Verifax.)

TREGAY, J. L. Electrostatic microfilm enlarger-printer. *Elec Mfg* 63:146 + June 1959.

VERRY, H. R. Document copying and reproduction processes. *J Doc* 15(3):164-166 Sept. 1959. (Review by D. T. Richnell.)

———. Photocopying methods. *Perspective* 1(2): 164-69 1959.

WEIS, M. M. Case for microfilming. *Am Archivist* 22:15-24 Jan. 1959.

WILDS, T. Microfilm: How and when to use it. *Office* 50(3):86-90 + Sept. 1959.

## EQUIPMENT

### 1957

Printer duplicates microfilm files. *Product Eng* 28:94 Nov. 11 1957.

### 1958

Apparatus: Types of microfilm readers. *Bol Inf Micro* 6(1):1-4 Apr. 1958 (Projection type versus screen type readers; in Italian.)

Contact copying machines. *Consumer Bul* 22-26, Mar. 1958.

Extremely fast print-out equipment. *Elec Eng* 77: 193-94 Feb. 1958.

KIERSKY, L. J. Developments in photoreproduction. *Spec Lib* 49:28 Jan. 1958; 164 Apr. 1958.

LIPSCHITZ, I. Microfilm equipment (Tools of the Office series.) *Office Mgt* 19(10):42-43 + Oct. 1958.

Microfilm copied in ten seconds; 3M Brand microfilm reader-printer. *Ind Lab* 9:95 May 1958.

SADOW, A. Book copying machines; a description and evaluation. *Med Lib Assn Bul* 46(3):344-51 July 1958.

STEWART, J. *Reading devices for micro-images*. New Brunswick: Rutgers University, Graduate School of Library Service, 1958. 166 p.

VERRY, H. R. Microrecording. *Ailib Proc* 10(8): 189-93 Aug. 1958 (Review of format, apparatus and use.)

WILLIAMS, G. Flip: film library instantaneous

presentation. *Lib Resources & Tech Serv* 2(4): 278-281 Fall 1958. (Description of an automatic microfilm searching machine.)

WOLF, D. The Microbox process—a new trend in microfilm. *Nach Dok* 9(1):45-47 Mar. 1958 (In German.)

### 1959

BALLOU, H. W. Directory of microfilm enlargers. *PMI* 2:36-37 Aug. 1959. (Details of standard, specialized, electrostatic and reader-printer enlargers.)

———, ed. *Guide to microreproduction equipment*. Annapolis: National Microfilm Association, 1959. 438 p.

BROCKMAN, W. D. Copy camera speeds filing. *Ind Phot* 8:34 + July 1959.

Continuous printers complete unitized microfilm system. *Ind Lab* 10:109-10 Feb. 1959.

Copying and duplicating equipment (Tools of the Office series.) *Office Mgt* 20(3)38 + Mar. 1959.

FOX, J. Diffusion-transfer camera; method of reproduction that will operate by projection. *Ind Phot* 8:64-66 Apr. 1959.

Dry process prints pictures; Haloid Xerox automatic picture printer. *Chem & Eng N* 37:58 + May 11 1959.

GOUGH, C. R. A photoclerk paper cutter. *Am Doc* 10(1):98-99 Jan. 1959. (Cuts developed rolls into 3 x 5 slips; specifications and diagram available from author, Queensboro Public Library N. Y.)

Inexpensive microfilm reader. *Unesco Bul Lib* 13:98 Apr. 1959.

KIERSKY, L. J. Developments in photoreproduction. *Spec Lib* 50:403-04 Oct. 1959; 505 Dec. 1959.

New Kodak Verifax book copying unit. *Am Doc* 10(4):332-33 Oct. 1959.

New microtransparency reader. *Spec Lib* 50:25 Jan. 1959.

ROPPOLIS, G. P. Acetate jacket for microfilm. *Ind Phot* 8:69 Aug. 1959.

STRIEDL, Hans. A model D Xerox unit in the library. *Dok Fach Werks* 7(5):145-54 July 1959. (In German.)

TAUBES, E. P. 105mm. *Ind Phot* 8:36 + Apr. 1959.

———. What to look for in a microfilm reader. *Mag of Standards*, 30(10):296-97 Oct. 1959.

TEMMER, H. E. Photocopying equipment. In: American Association of Collegiate Registrars and Admissions Officers. Committee on Machine Equipment. Office machine equipment. The Association, 1959:51-63.

Vertical process cameras (a directory). *PMI* 2:18-19 Mar. 1959. (Fifteen vertical process cameras with details.)

## APPLICATIONS

### 1957

Aperture cards file microfilm; illustrations with text. *Electronic Ind & Tele-Tech* 16:82 Nov. 1957.

## SPECIAL LIBRARIES

ARNE, F. Copiers cope with paper work. *Chem Eng* 64(11):206, 208, 210 Nov. 1957.

BOLGER, L. T. Microfilm index preserves historical material: Plymouth county registry of deeds. *Lib J* 82:2906-07 Nov. 15 1957.

CREW, W. D. Many are still unaware of new microfilm applications. *Office* 47:160 + Jan. 1958.

### 1958

ARDEN, L. L. Exit "o. p." *Lib Assn Rec* 60(8): 254 Aug. 1958.

ASHFORD, O. M. Collection and publication of IGY meteorological data. *Rev Doc* 25(3):74-78 Aug. 1958. (Microcards.)

BALLOU, H. W. Microphotography and the medical library. *Med Lib Assn Bul* 46:199-207 Apr. 1958.

———. Microrecording and its uses in research. *Ind Phot* 7:41 + Apr. 1958.

BURKETT, J. Use of microrecords in libraries and information centers. *Aslib Proc* 10(8):179-88 Aug. 1958.

CLAPP, Verner. Journal publication in microform. *Science* 127:1145 May 16 1958; Reply. *Lebo, D.* 128:4245 Aug. 22 1958.

COLLISON, R. L. Microfilms for smaller libraries. *Microcosm* 4:3-4 Feb. 1958.

Common communication method for scientific research. *Office* 47:12 + Feb. 1958. (Use of Microcards.)

CORDONNIER, G. Applications of microcopies in documentation centers. *Unesco Bul Lib* 12(11-12): 271-276 Nov.-Dec. 1958.

CUSTER, A. Archives of American art; a manuscript and microfilm collection requiring unusual techniques for control. *Lib Resources & Tech Serv* 2:197-208 Summer 1958.

DALY, L. J. and VOLLMAR, E. R. Knights of Columbus Vatican microfilm library at Saint Louis University. *Lib Q* 28:165-71 July 1958.

ERBES, R. G., Jr. Microfilm in the high school library. *Wilson Lib Bul* 33:302-03 Dec. 1958.

ERMATINGER, C. J. Knights of Columbus Vatican film library at St. Louis University. *Ky Lib Assn Bul* 22:3-4 + Apr. 1958.

FRANK, Otto. Some methods for production and reproduction of catalogue cards. *Unesco Bul Lib* 12(2-3):43-49 Feb.-Mar. 1958.

GAUNTLETT, M. D. Handling microcopies in libraries. *Libn and Bk W* 47:68-72 Apr. 1958.

GERTZ, U. Printed catalog cards. *Tid Dok* 14(1): 10-12 1958. (Copytyst installation; brief description of Multilith method.)

History in photocopy. *Lib J* 83:2800-01 Oct. 15 1958.

HOFFMAN, J. R. New use for photocopying machine. *Lib J* 83:54 Jan. 1 1958.

JENSSEN, Hans. Periodicals routing with diazo at the FAO Library. *Unesco Bul Lib* 12(4):82-84, 93 Apr. 1958.

KIERSKY, L. J. Reproduction: an integrated function of the technical information library. *Spec Lib* 49:386-88 Oct. 1958.

KINGERY, R. E. Photoprocessing at NYPL. *Lib J* 83:1330-34 May 1 1958.

LEUN, M. S., van der. Edition of a current literature bulletin and the establishment of card files derived from this material. *Bibliothekleven* 43: 232-40 Sept. 1958. (In Dutch.)

Linné Herbarium on microfiches. *Unesco Bul Lib* 12(7):176 July 1958.

MCGARRY, D. D. The microfilming of the Vatican manuscript library. *Am Doc* 9(1):50-58 Jan. 1958. Microtext libraries at IGY bases. *Lib J* 83:703-05 Mar. 1 1958.

MITCHELL, W. Cutting journal costs. *Chem Eng News* 36:12, 14 Jan. 20 1958. (Suggestion for microfilm copies of papers.)

New indexes from old by photocopying. *Lib J* 83:2024 + July 1958.

POWER, E. O-P books; a library breakthrough. *Am Doc* 9(4):273-76 Oct. 1958.

PONS, Wei-Ta. Technical services of microfilms at Columbia University Library; a case study. *Lib Resources & Tech Serv* 2(2):127-32 Spring 1958.

SCHULTHEISS, L. A. This works for us: Multilithed catalog cards. *Spec Lib* 49:223 May-June 1958.

SCOTT, P. Thermofax in the library. In: ALA Resources and Technical Services Div., Copying Methods Sect. Library uses of rapid copiers. University of California General Library. 1958:1-9. Space savings in record storage by use of microfilm system. *Allgem Papier-Rund* 706 + July 20 1958.

THOMSON, E. J. Military journals on microfilm. *Lib J* 83:36-67 Jan. 1 1958.

THOMPSON, L. S. Microfacsimile in American research libraries. *Libri* 8(3-4):209-22 1958.

Over 15,000 Arab manuscripts microfilmed. *Unesco Bul Lib* 12(8-9):218-19 Aug.-Sept. 1958. (Institute of Arab Manuscripts, Rue Boustane, Cairo, Egypt.)

### 1959

BUTTERFIELD, M. Microtext room. *Rochester Univ Lib Bul* 14:28 + Winter 1959.

DELEHANTY, E. J. Map microfilming reduces storage problem. *Pub Works* 90:127-28 Sept. 1959.

First scientific journal in microform. *Unesco Bul Lib* 13(5-6):139-40 May-June 1959.

HARKNESS, A. Microfilming historical imprints in Chile. In: Seminar on the acquisition of Latin American materials, Final report and papers of the third seminar, July 10-11 1958. Berkeley: University of California Library, 1959:89-91.

HART, D. E. This works for me. *News Bul*, Boston Chap. SLA. 26(3):2 Nov. 1959. (Thermofax copying.)

How a copying machine aids letter answering. *Office* 50(4):264 + Oct. 1959.

How to combine the literature of many companies. *Ad Requirements* 7(7):62 + July 1959.

JAMES, P. Searching and updating easy with film-tape records. *Control Eng* 6:128 Oct. 1959.

KINGERY, R. E. New library technology. *Lib J* 84:1387-91 May 1 1959.

LINARES, E. Microfilm services and their use in Argentina. In: Seminar on the acquisition of Latin American materials, Final report and papers of the third seminar, July 10-11 1958. Berkeley: University of California Library, 1959:92-99.

LYONS, M. Microfilm—and its use in the office (Tools of the Office series). *Office Mgt* 20(10): 76-82, 84 + Oct. 1959.

MELCHER, D. Uses of microprint in bibliography. *Lib J* 84:1414-17 May 1 1959.

Microcopy in France, in libraries, archives, and documentation centers. *Bul Biblio France* 4(5): 229-48 May 1959. (In French.)

Microreading at one's desk. *Office Mag* 6(69):762 Sept. 1959. (Ross microreader.)

PARCHÉ, M. C. This works for us: Microcards in an edition of one. *Spec Lib* 50:36-37 Jan. 1959. (Microtrak.)

Patent Gazette microfilm project near completion. *Am Doc* 10(1):104 Jan. 1959. (Entire run of the *Gazette* put on film by Micro Photo, Inc., Cleveland, Ohio.)

POWER, E. Small edition publishing from microfilm. *Microcosm* 5(3):4 Fall 1959.

Production of lists and directories facilitated by new composing card camera. *ODT Repro Rev* 9(10):60, 84 Oct. 1959. (Card data transferred to roll film which is developed, stripped into page format and used for Xerographic printing.)

SAUNDERS, B. Preparation of periodical routing slips. *Bul Montreal Chap SLA* 25(1):8 Oct. 1959. (Xerography.)

Scientific journal in microfilm, an experiment in publishing. *Lib J* 84:1053 Apr. 1 1959.

SELITZER, R. Microfilm plus photocopy gives answer to Dun & Bradstreet's report problem. *Ind Phot* 8:56 Apr. 1959.

SIMON, W. H. This works for us: Periodical handling with photocopy system. *Spec Lib* 50:206-07 May-June 1959.

SMISOR, G. T. Microfilming newspapers in Panama—the Panama *Star and Herald*. In: Seminar on the Acquisition of Latin American materials, Final report and papers of the third seminar, July 10-11 1958. Berkeley: University of California Library, 1959:78-82.

TAYLOR, D. K. State microfilming programs. *Am Archivist* 22:59-82 Jan. 1959.

TREYZ, J. H. Xerox process and its application at Yale. *Lib Resources & Tech Serv* 3(3):223-29 Summer 1959. (Card reproduction.)

VALLINKOSKI, J. Microfilming of newspapers in Finland. *Libri* 9(1):38-44 1959.

## SYSTEMS

### 1957

BJORKBOM, C. Peek-a-boo cards. *Tid Dok* 13(4): 54 + 1957. (Features of American and European practice; in Swedish.)

Computer reads microfilm. *Electronic Ind & Tele-Tech* 16:83 +, flow diag, Nov. 1957.

KUIPERS, J. W., TYLER, A. W. and MYERS, W. L. Minicard system for documentary information. *Am Doc* 8(4):246-68 Oct. 1957.

HALLETT, L. T. The analyst's column: Microcite technique of photographically storing highly reduced copies of citations and microabstracts. *Anal Chem* 29:49A, 51A Nov. 1957.

HANCOCK, A. C. "Intelligence" on demand! *Systems* 21(6):15-16 Nov.-Dec. 1957. (8 pages on 35mm strip inserted in aperture card.)

TASCHIOGLOU, K. P. Polaroid transparency system. *Spec Lib* 48:426-27 Nov. 1957.

### 1958

BATCHELDER, R. W. and ADAMS, K. Setting up a Filmsort system. *Ind Phot* 7:42 Apr. 1958.

BRISTOL, R. P. *Transmission of Microcard images by closed-circuit TV*; a preliminary report. University of Virginia Alderman Library, 1958. 6 p. Convert engineering drawings to microfilm mounted in punched cards. *Ind Lab* 9(8):40 Aug. 1958. (35mm microfilm images mounted in apertures on punched cards.)

FRANZ, H. A photosensitive punch card as a means of obtaining the original from a selection device. *Nach Dok* 9(1):40-44 Mar. 1958. (In German.)

Recordak indexing system codes directly on film. *Am Doc* 9(1):69-70 Jan. 1958. (Kodamatic indexing.)

SAMAIN, J. Filmorex—a new method of documentation. *Nach Dok* 9(1):35-40 Mar. 1958.

### 1959

Automatic selection and reproduction of industrial documents. *Data Proc* 1(4):204-211 Oct.-Dec. 1959.

Copyrama; the systems concept in action. *Ind Mktg* 44:55-58 Apr. 1959. (How Haloid Xerox used it.)

Dial "P" for plans. *Graphic Science* 1(1):26-29 Oct. 1959. (Phone dial, magnetic or punched tape and closed circuit TV permit remote control of microfilm images.)

From coded tape to print: Xerographic printing. *Engineering* 187:421 Feb. 20 1959.

HALE, R. W., Jr. Cataloging of microfilm. *Am Archivist* 22:11-13 Jan. 1959.

More instant literature; Kodak's high-speed information handling system combines index and document record. *Chem & Eng News* 37:82-83 June 29 1959.

PARKER, F. M. 3,750,000 prints later. *PMI* 2(11): 38-41, 86-88 Nov. 1959. (Westinghouse's automated engineering drawing reproduction system.)

TISCHER, Hans. Storage, arrangement and utilization of microfilms. *Dok Fach Werke* 7(4):129-30 Apr. 1959. (In German.)

WILLCOCK, R. B. The new Ozalid microfilm systems. *British J Phot* 106(5177):420-22 Oct. 9 1959. (Diazo reader-printer.)

## STANDARDS

### 1958

Documentary reproduction. *Courier de la Normal* 25(142):425 July-Aug. 1958.  
Standard specifications for photographic film revised (PH1.28-1957). *Am Doc* 9(4):323-24 Oct. 1958.

### 1959

NAGARAJAN, K. S. Production and use of microcopies: need for standard practice. *Ann Lib Sci* 6(1):21-32 Mar. 1959.

### Journals Cited

Advertising Requirements  
Alabama Chapter Bulletin (SLA)  
Allgemeine Papier-Rundschau (Germany)  
American Archivist  
American Documentation  
Analytical Chemistry  
Annals of Library Science (India)  
Aslib Proceedings (England)  
Bibliothekleven (Netherlands)  
Bollettino d'Informazione Sulla Microreproduzione (Italy)  
British Journal of Photography  
Bulletin des Bibliothèques de France (France)  
Bulletin, Montreal Chapter (SLA)  
Chemical and Engineering News  
Chemical Engineering  
College and Research Libraries  
Consumer Bulletin  
Control Engineering  
Courier de la Normalisation (France)  
Data Processing  
Dokumentation Fachbibliothek Werksbucherei (Germany)  
Electrical Manufacturing  
Electronic Industries & Tele-Tech  
Engineering  
Graphic Arts Monthly  
Graphic Science  
Hommes et Techniques (France)

Industrial Laboratories  
Industrial Marketing  
Industrial Photography  
Journal of Documentation (Aslib, England)  
Kentucky Library Association Bulletin  
Law Library Journal  
Librarian and Book World (England)  
Library Association Record (England)  
Library Journal  
Library Resources and Technical Services  
Libri (Denmark)  
Machine Design  
Magazine of Standards  
Medical Library Association Bulletin  
Microcard Bulletin  
Microcosm  
Nachrichten Für Dokumentation (Germany)  
News Bulletin, Boston Chapter (SLA)  
ODR Reproductions Review  
Office  
Office Executive  
Office Magazine (England)  
Office Management  
Penrose Annual  
Perspective  
Photographic Science and Engineering  
Picturescope (SLA Picture Division)  
PMI (Photo Methods for Industry)  
Popular Mechanics  
Popular Photography  
Product Engineering  
Public Works  
Revue de la Documentation (FID Netherlands)  
Rochester University Library Bulletin  
Rubber Age  
Special Libraries  
Systems  
TAPPI (Technical Association of the Pulp and Paper Industry)  
Tidskrift For Dokumentation (Sweden)  
Time  
Unesco Bulletin for Libraries (France)  
Wilson Library Bulletin

## News from SLA Headquarters

Marjorie Wright Schaal of Pittsburgh, one of the 1959-60 SLA Scholarship winners, has discontinued for the time being her graduate work at Carnegie Institute of Technology. She has returned her scholarship money, and the full scholarship has been awarded to the first alternate, Lois M. Anderson, who is now working for her library degree at the University of California in Berkeley.

The Association's contract with the Office of Technical Services for the support of the SLA Translation Center at the John Crerar Library in Chicago has been extended, effective January 1-June 30, 1960. This will permit future contracts to conform to the government's fiscal year. The Translation Center Committee is pleased to announce that *Technical Translations* is now listing regularly the translations received at the Center. The increased number of requests now equals that

previously requested when translations were listed in *Translation Monthly*.

Any Chapter or individual interested in participating in National Library Week—April 3-9, 1960—may obtain, free of charge, from SLA Headquarters a supply of National Library Week bookmarks. Additional display material, such as posters, counter cards, streamers, mobiles and an organization handbook, should be ordered directly from NLW, 24 West 40th Street, New York 18. SLA's representative on the National Book Committee, Inc., Mary C. Dunnigan, U. S. Brewers Foundation, Inc., 535 Fifth Avenue, New York 17, will be pleased to hear from members who have ideas or suggestions on how the Association or special librarians can or are taking part in National Library Week.



# The Social Studies: A Select Bibliography for 1959

JACK A. CLARKE, Assistant Librarian for Social Studies

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IT WOULD BE difficult to find a more elusive and ill-defined field of knowledge than the social studies, which transcends many of the traditional disciplines. To educators the term social studies refers to a course in citizenship embodying those portions of the social sciences regarded as suitable for study in elementary and secondary schools. Researchers and writers of an interdisciplinary bent tend to define the term broadly to include the interrelations of the social sciences, geography, history, statistics and sometimes law. Librarians, who are increasingly concerned with the social studies, lump in this category those disciplines "of which both the subject matter and the aims are predominantly social."\* Unfortunately, there is little agreement as to the content and limits of this branch of knowledge. The term usually means whatever one wants it to mean. For the purposes of this article the social studies are defined arbitrarily as consisting of international relations, industrial relations, public administration and social welfare.

The literature on these subjects is vast and growing for they are of continual interest to both the casual reader and the seasoned researcher. Any selection of titles from the voluminous mass appearing each year is bound to contain significant omissions. This list makes no claim to completeness. It represents only those books, pamphlets and articles that have proven helpful to the readers and scholars with whom the compiler has had contact.

## International Relations

The year 1959 was marked by the appearance of a substantial number of books and essays on the problems and prospects of in-

\* Good, Carter. *Dictionary of Education*, 2nd ed. New York: McGraw-Hill, 1959, p. 509.

ternational relations. As in the past, the dangers of atomic warfare continued to occupy the minds of many authors (8, 22, 27, 29). (Numbers in parentheses refer to numbered entries at the end of the text.) Other writers focused their attention on the cold war with the Soviet Union, a state of affairs gradually giving place to competitive coexistence (4, 17, 18). Adlai Stevenson's *Friends and Enemies* is a discerning commentary on the changing political structure of Russia. He describes Russia's somber and formidable challenge to our society with wit and intelligence, concluding on a note of "calm and final" confidence (27).

There were also a large number of good books on United States foreign policy, of which Graber and Halle are particularly noteworthy (10, 11). Other volumes of merit analyze the foreign policies of India and Turkey (16, 30). Worthy of mention also are two excellent works on the United Nations (9, 20). The Eleventh Report of the Commission to Study the Organization of Peace asks whether the UN is capable of coping with the nuclear arms race and offers concrete proposals for easing world tensions through its strengthening (14). And at least two discussions of the backgrounds of current crises became available (1, 31). Finally, Trygve Mathisen's treatise on the methodology of international relations should prove useful to students in that area (19).

## Social Welfare

In the field of social welfare the year saw many valuable new publications. Juvenile delinquency continued to draw the lion's share of attention (46, 49, 61, 62). Sheldon and Eleanor Glueck, famed husband and wife criminologist team of the Harvard Law School, published elaborate statistics on

thousands of criminals, which enable them to forecast criminal behavior with amazing accuracy. Using their system of spotting delinquents while there is still time, the social worker can work effectively to improve the home situation (48).

Many of the terms and concepts used in social welfare are defined in John Zadrozny's *Dictionary of Social Sciences* (68). Much study was devoted to social work, and worthy of mention are two specific investigations by Kutzik and Catton (41, 53). A more general work was compiled by Alfred Kahn tempering description with discussion of policies (52). The growing population of elder citizens has prompted the compilation of a selected bibliography (64). An invaluable UN publication lists worldwide trends in present day social programs from 1953 to 1958 (51).

Robert Smuts' *Women and Work in America* considers the radical social changes since the turn of the century and what they imply for the American woman, her family and society (58). Jacobus Ten Broek and Floyd Matson examine the prejudices against the blind and show how they even reach into the rehabilitation programs intended to help them (63).

### Industrial Relations

The vast problems of industrial relations received due attention in 1959, a year of great industrial unrest and uncertainty. Trade unions continued to be studied diligently by labor economists and representatives of management (73, 83). Charles Wiedemann's *Labor Management Relations* provided an excellent guide for company officials responsible for union relations (97). William Leiserson asked the question whether American unions were democratic or authoritarian in character but died before he could write the concluding chapter, leaving the reader to form his own conclusions (84). Other writers directed their attention toward less comprehensive aspects of the labor movement (86). The report of the Arden House symposium on *Labor in a Free Society* was published late in the year; among other subjects dealt with were the political and social implications of trade unionism (81).

Management researchers have not been idle. Stanley Vance outlined basic management concepts and techniques, and James Taylor presented the best modern methods of constructive personnel plans and policies (93, 94). Equally helpful for the student of business philosophy was Don Fenn's *Management's Mission in a New Society*, a compilation containing opinions of over 30 business leaders (78).

For the specialist in international management development, a new book by Harbison and Myers, containing chapters comparing systems in India, France, Great Britain and other countries, will prove of considerable interest (80). And for further reading on industrial relations the reader should consult the select and annotated bibliographies by Scanlan and Shostak (84, 92).

### Public Administration

The literature on public administration, though less extensive than that of many other areas of the social studies, is nevertheless steadily increasing in volume. At least three new books dealt with perennial administrative problems from fresh viewpoints (100, 101, 118). A strong light was thrown on the political responsibility of the administrative agencies of the government in John Millett's *Government and Public Administration* (116). Millett, a widely experienced administrator and college president, discusses the various types of controls exercised by the executive and judicial branches of the federal government over administrative agencies. Richard Leach and Redding Sugg have investigated the actual operations of interstate compact agencies, demonstrating striking new developments in responsible state government (115).

In his newest work, *Administrative Vitality*, Marshall Dimock has attempted to reconcile bureaucracy with personal initiative (108). The year was remarkable also for an excellent work on comparative administration. A compilation of essays by eminent political scientists shows the difference in administrative problems between underdeveloped and highly industrialized countries (122). Several British writers have treated

aspects of public administration peculiar to their system of government (105, 123).

Two further publications will interest all those concerned with the social studies. The first is a bibliography, prepared by Clarence Samford for the social studies educator, listing articles, books and pamphlets on the "social studies" as a high school course (129). The second is a book written by Bert Hose-litz, which seeks to acquaint the reader with the present state of research in the social sciences (128).

## REFERENCES

(All items listed were published in 1959 unless otherwise noted.)

### International Relations

1. BASS, ROBERT and MARBURY, ELIZABETH, eds. *The Soviet-Yugoslav Controversy, 1948-58*. New York: Prospect Books, for the East Europe Institute, \$3.95.
2. CORBETT, PERCY E. *Law in Diplomacy*. Princeton: Princeton Univ. Press, Center of International Studies, \$6.
3. DIEBOLD, WILLIAM. *The Schumann Plan, a Study in Economic Cooperation, 1950-59*. New York: Praeger, for the Council on Foreign Relations, \$6.50.
4. *The Economics of Competitive Coexistence*, 3 vols. Washington, D. C.: National Planning Association.
5. *European Organizations, 1959*. Fair Lawn, N. J.: Essential Books, \$5.40. (Prepared by a working group of Political and Economic Planning)
6. FOX, WILLIAM T. *Theoretical Aspects of International Relations*. Notre Dame, Ind.: Univ. Notre Dame Press, International Studies of the Committee on International Relations, University of Notre Dame, \$3.25.
7. FREE, L. A. *Six Allies and a Neutral*. Glencoe, Ill.: Free Press, \$5.
8. GOLLANCZ, VICTOR. *The Devil's Repertoire, or, Nuclear Bombing and the Life of Man*. Garden City: Doubleday, \$2.50.
9. GOODSPEED, STEPHEN S. *The Nature and Function of International Organizations*. New York: Oxford, \$7.25.
10. GRABER, D. A. *Crisis Diplomacy: A History of U.S. Intervention Policies*. Washington, D. C.: Public Affairs Press, \$6.75.
11. HALLE, LOUIS J. *Dream and Reality: Aspects of American Foreign Policy*. New York: Harper, \$5.
12. HERZ, JOHN. *International Politics in the Atomic Age*. New York: Columbia Univ. Press, \$6.
13. HOFFMAN, STANLEY H. *International Relations: The Long Road to Theory*. *World Politics*, April, p. 346-77.
14. HOLCOMBE, ARTHUR, chairman, Commission to Study the Organization of Peace. *Organizing Peace in the Nuclear Age*. New York: New York Univ. Press, \$3.75.
15. KAPLAN, MORTON A. *Some Problems in the Strategic Analysis of International Relations* (Research Monograph no. 2). Princeton: Princeton Univ. Press, Center of International Studies.
16. KILIC, ALTEMUR. *Turkey and the World*. Washington, D. C.: Public Affairs Press, \$4.50.
17. KNORR, KLAUS, ed. *Nato and American Security*. Princeton: Princeton Univ. Press, \$6.
18. MARTIN, HUGH G. *Decade of Cold War*. *Middle East Affairs*, March, p. 95-102.
19. MATHISEN, TRYGVE. *Methodology in the Study of International Relations*. New York: Macmillan, \$3.75.
20. MACIVER, ROBERT M. *The Nations and the United Nations*. New York: Manhattan Publishing Co., for the Carnegie Endowment for International Peace, \$3.
21. MCINNIS, EDGAR. *The Atlantic Triangle and the Cold War*. Toronto: Univ. of Toronto Press, for the Canadian Institute of International Affairs, \$4.50.
22. MIKSICHE, F. O. *The Failure of Atomic Strategy*. New York: Praeger, \$4.50.
23. MORGENSTERN, OSKAR. *International Financial Transactions and Business Cycles*. Princeton: Princeton Univ. Press, \$12.
24. NICHOLAS, H. G. *The United Nations as a Political Institution*. New York: Oxford, \$3.40.
25. NIEBUHR, REINHOLD. *The Structure of Nations and Empires: A Study of the Recurring Patterns and Problems of the Political Order in Relation to the Unique Problems of the Nuclear Age*. New York: Scribners, \$5.95.
26. PADOVER, SAUL K. *Understanding Foreign Policy* (Public Affairs Pamphlet no. 280). New York: Public Affairs Committee, \$25.
27. PEARSON, LESTER B. *Diplomacy in the Nuclear Age*. Cambridge: Harvard Univ. Press, \$2.75.
28. RUSSELL, BERTRAND. *Common Sense and Nuclear Warfare*. New York: Simon and Schuster, \$2.50.
29. SCHURZ, WILLIAM L. *American Foreign Affairs: A Guide to International Affairs*. New York: Dutton, \$4.50.
30. SMITH, DONALD EUGENE. *Nebru and Democracy: The Political Thought of an Asian Diplomat*. New York: Longmans, \$5.25.
31. SNELL, JOHN L. *Wartime Origins of the East-West Dilemma over Germany*. New Orleans: Hauser Press, \$7.
32. STEBBINS, RICHARD. *The United States in World Affairs*. New York: Harper, for the Council on Foreign Relations, \$6.
33. STERNBERG, FRITZ. *The Military and Industrial Revolution of Our Time*, rev. ed. New York: Praeger, \$5.75.

34. STEVENSON, ADLAI E. *Friends and Enemies*. New York: Harper, \$2.95.
35. STRAUSS-HUPE, ROBERT and others. *Protracted Conflict*. New York: Harper, for the Foreign Policy Research Institute, \$3.95.
36. TOYNBEE, PHILIP. *The Fearful Choice, a Debate on Nuclear Policy Conducted by Philip Toynbee with the Archbishop of Canterbury and others*. Detroit: Wayne Univ. Press, \$2.50. (English edition was 1958)
37. WALTZ, KENNETH N. *Man, the State, and War: A Theoretical Analysis* (Topical Studies in International Relations no. 2). New York: Columbia Univ. Press, \$5.50.

### Social Welfare

38. AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *Prevention of Juvenile Delinquency*. Philadelphia: American Academy, \$3.
39. BECK, DOROTHY F. Potential Approaches to Research in the Family Service Field. *Social Casework*, July, p. 385-93.
40. BOEHM, WERNER. *Objectives for the Social Work Curriculum of the Future*. New York: Council on Social Work Education.
41. CATTON, MARGARET. *Social Service in Hawaii*. Palo Alto, Calif.: Pacific Books, \$6.
42. COHEN, WILBUR J. Needed Changes in Social Welfare Programs and Objectives. *Social Service Review*, March, p. 30-42.
43. COLE, G. D. H. *British Social Services*. London: Longmans.
44. COMMUNITY ORGANIZATION, 1959. *Papers Presented at the 86th Annual Forum of the National Conference on Social Welfare, San Francisco, Calif., May 24-29, 1959*. New York: Columbia Univ. Press, \$2.50.
45. CORMACK, UNA. The Younghusband Report on Social Workers. *Public Administration*, Autumn, p. 299-304.
46. *Delinquent Behavior, Principles, and Practices* (prepared by W. C. Kvaraceus et al.). Washington, D. C.: National Education Association, Juvenile Delinquency Project.
47. GLAZER, NATHAN, ed. *Studies in Housing and Minority Groups*. Berkeley: Univ. of California Press, \$6.
48. GLUECK, SHELDON and ELEANOR. *Predicting Delinquency and Crime*. Cambridge: Harvard Univ. Press, \$6.50.
49. GLUECK, SHELDON, ed. *Problem of Delinquency*. Boston: Houghton, \$10.50.
50. HARPER, ERNEST B. and DUNHAM, ARTHUR C. *Community Organization in Action*. New York: Association Press, \$7.50.
51. *International Survey of Programmes of Social Development*. New York: United Nations, \$2.
52. KAHN, ALFRED. *Issues in American Social Work*. New York: Columbia Univ. Press, \$5.
53. KUTZIK, A. J. *Social Work and Jewish Values*. Washington, D. C.: Public Affairs Press, \$3.25.
54. *Lawyer and the Social Worker, Guide to Cooperation*. New York: Family Service Association of America, \$65.
55. LERNER, DANIEL, ed. *Human Meaning of the Social Sciences*. New York: Meridian Books, \$4.
56. MCCORD, WILLIAM and JOAN. *Origins of Crime*. New York: Columbia Univ. Press, \$6.
57. OGG, ELIZABETH. *Good Neighbors—the Rise of Community Welfare Councils* (Public Affairs Pamphlet no. 277). New York: Public Affairs Committee, \$25.
58. SMUTS, ROBERT W. *Women and Work in America*. New York: Columbia Univ. Press, \$4.50.
59. *Social Welfare in a Changing World*. New York: National Social Welfare Assembly, free.
60. SOCIAL WELFARE FORUM, 1959. *Official Proceedings, 86th Annual Forum of the National Conference on Social Welfare, San Francisco, Calif., May 24-29*. New York: Columbia Univ. Press, \$5.
61. *State Public Welfare Department Responsibility in Juvenile Delinquency Services*. Chicago: American Public Welfare Association, \$25.
62. STEARN, JESS. *The Wasted Years*. Garden City: Doubleday, \$3.95.
63. TEN BROEK, JACOBUS and MATSON, FLOYD W. *Hope Deferred: Public Welfare and the Blind*. Berkeley: Univ. of California Press, \$5.
64. U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, LIBRARY. *Selected References on Aging, an Annotated Bibliography*. New York: Health Insurance Institute.
65. *Use of Judgments as Data in Social Work Research*. New York: National Association of Social Workers, \$1.75.
66. WOLF, ANNA W. *The One-Parent Family*. (Public Affairs Pamphlet no. 287). New York: Public Affairs Committee, \$25.
67. *Workshop on Young Adults Today*. New York: National Social Welfare Assembly, \$35.
68. ZADROZNY, JOHN T. *Dictionary of Social Science*. Washington, D. C.: Public Affairs Press, \$6.
69. ZEITZ, DOROTHY. *Child Welfare, Principles and Methods*. New York: Wiley, \$5.50.

### Industrial Relations

70. BECKER, ESTHER R. *Dictionary of Personnel and Industrial Relations*. New York: Philosophical Library, 1958, \$10.
71. BENNETT, WILLARD E. *Manager Selection, Education and Training*. New York: McGraw-Hill, \$6.
72. BRENNAN, CHARLES. *Wage Administration: Plans, Practices and Principles*. Homewood, Ill.: R. D. Irwin, \$6.75.
73. DAHRENDORF, RALF. *Class and Class Conflict in Industrial Society*. Stanford: Stanford Univ. Press, \$6.50.
74. DALTON, MELVILLE. *Men Who Manage: Fusions of Feeling and Theory in Administration* (California University, Institute of Industrial Re-

- lations Research Program Series). New York: Wiley, \$6.75.
75. DAVENPORT, J. L. *Building Morale and Status among Employees*. Berkeley: California Personnel Management Association, \$1.
76. DUNLOP, JOHN T. *Industrial Relations Systems*. New York: Holt, \$5.75.
77. FELDMAN, EDWARD S. *Small Business and Labor-Relations Problems. Law and Contemporary Problems*, Winter, p. 183-91.
78. FENN, DON H., ed. *Management's Mission in a New Society*. New York: McGraw-Hill, \$6.
79. GOLDBERG, ARTHUR J. Labor Management Relations, 1958-59. *Labor Law Journal*, June, p. 379-84.
80. HARBISON, FREDERICK and MYERS, CHARLES A. *Management in the Industrial World*. New York: McGraw-Hill, \$7.
81. HARRINGTON, MICHEL and JACOBS, PAUL, eds. *Labor in a Free Society: Arden House Symposium on Trade Unionism*. Berkeley: Univ. of California Press, \$3.
82. KING, R. L. *Getting More Results from Company Industrial Relations Programs*. Berkeley: California Personnel Management Association, \$1.
83. KNOWLES, WILLIAM H. *Trade Union Development and Industrial Relations in the British West Indies*. Berkeley: Univ. of California Press, \$5.
84. LEISERSON, WILLIAM M. *American Trade Union Democracy*. New York: Columbia Univ. Press, \$7.50.
85. MCFARLAND, D. E. The Scope of the Industrial Relations Function. *Personnel*, January-February, p. 42-51.
86. MACDONALD, LOIS, ed. *Leadership Dynamics and the Trade Union Leader*. New York: New York Univ. Press, \$2.50.
87. NORGREN, PAUL H. *Employing the Negro in American Industry* (Industrial Relations Monograph no. 7). New York: Industrial Relations Counselors, \$6.50.
88. PHELPS, ORME W. *Discipline and Discharge in the Unionized Firm* (Institute of Industrial Relations publication). Berkeley: Univ. of California Press, \$5.
89. QUINN, JAMES B. *Yardsticks for Industrial Research*. New York: Ronald Press, \$6.50.
90. SCANLAN, E. H., comp. Recommended Reading in Industrial Relations. *Michigan Business Review*, July, p. 13-15.
91. SELEKMAN, B. M. *Moral Philosophy for Management*. New York: McGraw-Hill, \$6.
92. SHOSTAK, ARTHUR, comp. *Current Industrial Relations Research and the Problem of Management* (Selected References no. 88). Princeton: Industrial Relations Section, Princeton University, \$3.00.
93. TAYLOR, JAMES H. *Personnel Administration: Evaluation and Executive Control*. New York: McGraw-Hill, \$7.
94. VANCE, STANLEY. *Industrial Administration*. New York: McGraw-Hill, \$7.
95. VINCENT, MELVIN J. and MAYERS, JACKSON. *New Foundations for Industrial Sociology*. New York: Van Nostrand, \$6.
96. WHYTE, WILLIAM FOOTE. *Man and Organization: Three Problems in Human Relations in Industry*. Homewood, Ill.: R. D. Irwin, \$4.50.
97. WIEDEMANN, CHARLES. *Labor-Management Relations*. New York: Reinhold, \$3.75.
98. YODER, DALE and HENEMAN, HERBERT. *Labor Economics and Industrial Relations*. Cincinnati: South-Western Publishing Co., \$6.75.
99. ———. *The Outlook in Industrial Relations* (Special release 1). Minneapolis: Industrial Relations Center, Univ. of Minnesota.

### Public Administration

100. AHMAD, JALEEL. *Expert and the Administrator*. Pittsburgh: Univ. of Pittsburgh Press, \$1.
101. AMERICAN MUNICIPAL ASSOCIATION. *City Federal Relations* (Proceedings of the American Municipal Congress, 1958, 35th Annual Meeting at Boston, Nov. 29-Dec. 3, 1958). Washington, D. C.: The Association.
102. ARNOLD, DAVID S. City Government's Role in Urban Renewal. *Public Management*, June, p. 130-4.
103. BARTHOLOMEW, P. C. *Public Administration* (The New Littlefield College Outlines, 29). Paterson, N. J.: Littlefield, \$1.50.
104. BETTERS, H. R. *City Problems of 1959* (Proceedings of U.S. Conference of Mayors, Los Angeles, California, July 13-15, 1959). Washington, D. C.: U.S. Conference of Mayors, \$2.50.
105. BRITAIN, SIR HERBERT. *The British Budgetary System*. New York: Macmillan, \$5.75.
106. CHAPMAN, BRIAN. *The Profession of Government: The Public Service in Europe*. London: Allen & Unwin, \$6.50.
107. Comparing Administrative Systems: Two Views. *Public Administration Review*, Winter 1959, p. 19-35. (Consists of A Survey and Evaluation of Comparative Research by Fred J. Teckner and Behavior and Bureaucracy in Many Cultures by Robert V. Prethus.)
108. DIMOCK, MARSHALL. *Administrative Vitality*. New York: Harper, \$5.
109. GADGIL, N. V. The New Administrator. *Indian Journal of Public Administration*, January-March, p. 48-55.
110. GILBERT, CHARLES E. The Framework of Administrative Responsibility. *Journal of Politics*, August, p. 373-407.
111. GOODALL, MERRIL R. Issues in the Transference of Western Administrative Practices to Contemporary India. *World Affairs Quarterly*, July, p. 154-68.
112. HARRELL, C. A. and WEIFORD, D. G. The City Manager and the Policy Process. *Public Administration Review*, Spring, p. 101-07.
113. HEMDAHL, REVEL G. *Urban Renewal*. New York: Scarecrow Press, \$8.
114. HIGSAV, ROBERT B. The Southern Gov-

- ernor—Challenge to the Strong Executive. *Public Administration Review*, Winter, p. 7-11.
115. LEACH, RICHARD H. and SUGG, REDDING S. *The Administration of Interstate Compacts*. Baton Rouge: Louisiana State Univ. Press, \$4.50.
116. MILLETT, JOHN D. *Government and Public Administration*. New York: McGraw-Hill, \$7.95.
117. MORSTEIN, FRITZ, ed. *Elements of Public Administration*, 2nd ed. Englewood Cliffs, N. J.: Prentice Hall, \$6.95.
118. NISPEL, BENJAMIN. *Reform of the Office of Lieutenant Governor*. Washington, D. C.: Public Affairs Press, \$1.
119. PARK, RICHARD L. and TINKER, IRENE, eds. *Leadership and Political Institutions in India*. Princeton: Princeton Univ. Press, \$10.
120. SEIDMAN, HAROLD. The Government Corporation in the United States. *Public Administration Review*, Summer, p. 103-14.
121. SHIPMAN, GEORGE A. Policy Process: An Emerging Perspective. *Western Political Quarterly*, June, p. 535-47.
122. SIFFIN, WILLIAM J., ed. *Toward a Comparative Study of Public Administration*. Bloomington: Indiana Univ. Press, \$3.25.
123. SISSON, CHARLES. *The Spirit of British Ad-*

- ministration and Some European Comparisons*. London: Faber & Faber, \$4.50.
124. TICKNER, FRED J. Public Administration in Yugoslavia. *Public Administration*, Summer, p. 145-52.
125. U.S. INTERNATIONAL COOPERATION ADMINISTRATION, Public Administration Division. *Second ICA Regional Conference on Public Administration in the Near East, South Asia and Africa: Summary of Proceedings*. Washington 25, D. C.: The Administration.
126. VERNON, RAYMOND. *Changing Economic Function of the Central City*. New York: Committee for Economic Development, \$1.

### The Overview

127. CLARKE, JACK ALDEN. *Research Materials in the Social Sciences*. Madison: Univ. of Wisconsin Press, \$7.5.
128. HOSELITZ, BERT F. *A Readers Guide to the Social Sciences*. Glencoe, Ill.: Free Press, \$6.
129. SAMFORD, CLARENCE D. *Social Studies Bibliography: Curriculum and Methodology*. Carbondale: Southern Illinois Univ. Press, \$5.50.
130. WEINBERG, MEYER. *Issues in Social Science*. Englewood Cliffs, N. J.: Prentice Hall, \$3.95.

## Current Activities of Center for Documentation and Communication Research

Western Reserve University has been awarded \$159,200 from the National Science Foundation for the first year of a two and one-half year test program to evaluate procedures for the exploitation of literature of interest to metallurgists and to augment the analysis-encoding-searching program being conducted for the American Society for Metals. Allen Kent, Associate Director of the University's Center for Documentation and Communication, will direct the program, whose principal goal will be to obtain data on the effectiveness, both technical and economic, of the processing and searching procedures used by the Center in its work for ASM. A committee of metallurgists and information specialists will participate in the further planning of the test program, serve as advisors and be responsible for the evaluation of the results of the program. Also being conducted for NSF under the auspices of the National Academy of Sciences-National Research Council is a program involving comparative tests of notation systems for organic chemical compounds, directed by J. W. Perry.

Other current documentation activities of the Center include a two-year program, "Ma-

chine Searching of Disease Vector Control Literature," under a grant from the National Institutes of Health; the development of a system of abstracting, encoding and machine searching of diabetes literature, monitored by an American Diabetes Association Documentation Committee; and a small demonstration project for the analysis, encoding and searching of Civil War documents. The Center is also engaged in a number of theoretical and basic research investigations which are expected to lead to the formulation of a theory of documentation and searching strategy. One basic program, being conducted for the Air Force Office of Scientific Research under the direction of J. W. Perry, is leading to the development of a mathematical model for a documentation system. In addition, the Center is cooperating with the University of Arizona's Applied Research Laboratory in the abstracting, encoding and machine searching of literature in electrical engineering and related fields and is helping Western Reserve School of Law in the encoding for a machine searching demonstration and test of a portion of the Uniform Commercial Code of Ohio.

# SLA Advisory Council

The Advisory Council has had official status in the Association structure for many years. Its composition, in varying forms, has been spelled out in the Constitution and its activities in the Bylaws.

Prior to the 1958 constitutional revisions, the Council's membership consisted of the executive officer of each Chapter, Division and Committee and all Special Representatives and Representatives on Joint Committees. It was required to meet at least once each year with the Executive Board at the Annual Meeting; it also met with the Board at one or more of its other meetings during the year. Under the Bylaws, it was permitted to organize formally and to elect a chairman and clerk; however, such action did not take place until late 1955. Its normal function consisted of hearing annual or other reports being presented formally to the Board. Council members were free to speak to any point under discussion by the Board and on reports submitted; its consideration and opinion were welcomed.

In 1955, President Chester Lewis and the Executive Board took two steps to encourage greater participation by the Council in resolving Association affairs. Several matters were specifically presented to the Council (with advance information) at the Fall Meeting. In addition, it was suggested that the formal organization of the Council might expedite Council affairs and permit it to play a more active part. The Council in its first separate meeting elected its first Chairman, Allen Kent; it also considered three questions submitted to it by the Board. It is of current significance that the first problem considered by the Council dealt with standards.

Thereafter, at its own meetings, the Council received a number of reports presented for its information by Association committees. A major topic to come before it, in 1957 and 1958, was revision of the Constitution and Bylaws, effecting (in 1959) important changes in Association membership requirements as well as certain elements of Council structure and other matters.

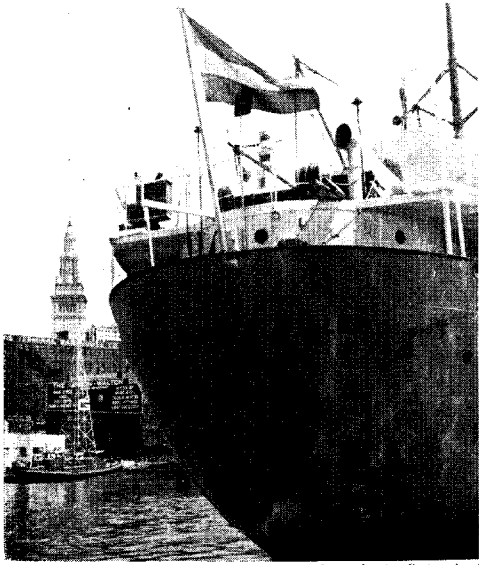
Council opinion and advice played an important role in shaping final recommendations of the committees involved: Special and Joint Committee Representatives were removed from the Council membership and the Second Vice-President was designated its chairman and the Association Secretary as its non-voting secretary. This method of providing for the Council's officers was designed to solve the problem of a body that is largely replaced each year and cannot well elect its own.

Duties of the Advisory Council now include the consideration of such reports, recommendations or other matters as the President or Executive Board may refer to it. It may also initiate proposals for consideration by the Board. The former function continues the benefits of cross-section opinion and the latter is comparatively unexplored. In February 1958, the Council did initiate two proposals to the Executive Board (Dana Lectureship Fund; consideration of proceedings publication), which acted favorably upon them.

It is suspected that members of the Advisory Council do not realize fully that they are encouraged to bring appropriate matters before it, both to assist the work of their respective constituencies and to formulate recommendations for the Board. Where feasible, distribution of supporting information in advance of meeting is strongly recommended. While proposals from Chapters, Divisions and Committees may still be made directly to the Board, their prior consideration by the Council is of great assistance to the Board, which may otherwise have insufficient background and may refer it to the Council. It is felt that the Advisory Council can serve not only as the meeting place of peers but, representing the opinion and reaction of the entire membership, as an active and beneficial force in the shaping and administration of the Association's affairs and future.

WILLIAM S. BUDINGTON  
*Chairman, Advisory Council*

SPECIAL LIBRARIES



*Joseph A. Ostendorf*

# Cleveland— The 1960 SLA Convention City

◀ From both water and land the Terminal Tower dominates the skyline of the port of Cleveland.

IT was in July 1796 that General Moses Cleaveland and his party of surveyors followed the densely forested shore line of Lake Erie in an open boat until they reached the delta of the Cuyahoga—"crooked water"—and worked their way into the river. Mounting the bluff, General Cleaveland chose this site, "located strategically for communication by land or water," as the "capital" town of the Western Reserve. It was destined to become a compact nerve-center of financial, marketing and industrial activity, whose metropolitan area stretches out from the Lake Erie shoreline like a fan. Now this same city is about to experience a new surge of growth as one of the major ports on the St. Lawrence Seaway.

During their stay in Cleveland special librarians will find, on one hand, the cultural side of Cleveland and, on the other, the industrial energy that merits Cleveland its rating in the market center as "The Best Location in the Nation." It is hoped by the Convention Executive Committee that SLA members will find their visit to Cleveland enjoyable and memorable from both aspects.

Headquarters for the 1960 Convention, the Sheraton-Cleveland Hotel, is a part of Cleveland's familiar landmark, the 52-story Terminal Tower unit. Other parts of the unit are a railway station, the city and sub-

urban rapid transit terminals, offices, a large department store and several shops. It towers above the Public Square, a small clearing of land purchased by the Connecticut Land Company in 1795 for \$1.76 and now at the hub of the city's business and transportation activities. Across the Square rises the recently completed aluminum and glass Illuminating Building.

Just beyond the Terminal Tower and the Public Square and adjacent to Lake Erie is The Mall, a 17-acre, tree-lined promenade area bordered by civic buildings—the Public Auditorium, the center for large conventions, the Board of Education Building, the City Hall, the Cuyahoga Court House and the lakefront Municipal Stadium. Extending into the business district on the south, The Mall includes the Federal Building and the Cleveland Public Library unit consisting of the Main Library and the newly-opened Business and Science Building, with green space between them in Eastman Park, the landscaped library garden. Both library buildings will have open house for SLA visitors, with tours if desired, on Sunday afternoon, the 5th of June. The Convention-wide tea, honoring first conventioners, Past-Presidents and "Hall of Famers," 3:00 to 5:30 p.m., will be held in the spacious marble circulating room of the Business Information Division,





**Federal Reserve Bank of Cleveland Library,  
Ethel S. Klahre, Cleveland Chapter President,  
librarian.**

which occupies the street-level main floor of the Business and Science Building with direct access also to the garden.

Across the street from these tea-time activities rises the stately Federal Reserve Bank Building, a modern adaptation of Italian Renaissance architecture in Georgia marble. Here is housed also the field office of the U. S. Department of Commerce. A new addition to the skyline is the glass, steel and ceramic structure of the East Ohio Gas Company. Walking south on this narrow street a few paces, one reaches the National City Bank Building on Euclid Avenue, which begins its easterly course at the Public Square and is the main shopping street. Many of the banks, law firms, insurance companies, management consultant and stock brokerage firms, headquarters offices, the Cleveland Chamber of Commerce and much commercial activity center on this street. In years past this famous avenue was lined with mansions of well-known Cleveland families

—such as the Perrys, the Paynes, the Prentisses, the Mathers, the Rockefellers, the Wades—and was referred to as “Millionaires’ Row” or simply “Prosperity Street.”

Considered in the trade to be probably the largest diversified industrial advertising center in the country—although all kinds of businesses are promoted from here—the Cleveland area has 175 advertising agencies, representing nearly eight per cent of all the agencies in the United States. Closely allied is the graphic arts industry, with 1200 printing, publishing, greeting card and graphic arts companies. In the newspaper area, the Forest City Publishing Company (Cleveland *Plain Dealer* and *Cleveland News*) and the *Cleveland Press* have recently moved into modern downtown buildings. *The Wall Street Journal* has just completed a \$3.5 million building; printing operations will begin in the spring.

Within Greater Cleveland are many pleasant, rapidly expanding suburbs—housing in suburban Cleveland is among the finest in the nation—shopping centers and, interlaced, the “emerald necklace” of the metropolitan park system. The first settlers of this portion of the Western Reserve came from western Connecticut and Massachusetts, and New England names loom large in the civic and cultural as well as the commercial and industrial development of the city. However, many other nationalities and cultural traditions have contributed to the history of Cleveland. This cultural diversity is exemplified in the “cultural gardens” which dot the wooded ravine from Wade Park north to the lake.

**Parma Research  
Center Library, Union  
Carbide Corporation,  
Miss Meredith S. Wright,  
Convention Executive  
Committee, librarian**





*Courtesy, The Cleveland Museum of Art*

Library of the  
Cleveland  
Museum of Art,  
Ella Tallman,  
Convention  
Hospitality  
Chairman, librarian.

Overlooking Wade Park on Cleveland's east side, four miles from the Public Square and located in University Circle, are Severance Hall (the home of the Cleveland Symphony Orchestra), the Garden Center of Greater Cleveland, Freiburger Library of Western Reserve University with its Library School and Documentation Center, the Cleveland Institute of Art, the Western Reserve Historical Society's Library and Museum housed in the former Leonard C. Hanna and Mrs. John Hay-McKinney mansions, respectively, in East Boulevard, the Museum of Natural History, and, overlooking the Fine Arts Garden, the Cleveland Museum of Art which ranks high both in America and abroad for the beauty of its architecture and setting. Recently enlarged, its magnificent collections are beautifully installed. A magnificent gift in funds, and also in collections, by the late Leonard C. Hanna, now ranks it next the Metropolitan Museum of Art in New York. The Museum's notable annual May Show of outstanding productions of Cleveland artists and craftsmen will be open through the 12th of June.

At the end of its 44th season will be The Play House, of professional calibre, whose three theatres provide simultaneously, in season, a varied fare for theatregoers. Another typical Cleveland institution is Karamu Theatre, still directed by its founders, Rowena and Russell Jelliffe, where two plays, by mixed casts, run simultaneously, and after-theatre coffee is served in the foyer where are shown, for purchase, paintings and craft objects by Negro artists. These

theatres are on or near Euclid Avenue, on the way to University Circle.

Also in University Circle, off Euclid Avenue, are Allen Memorial Medical Library, University Hospitals and the various colleges of Western Reserve University. Adjoining is Tomlinson Hall in the rapidly expanding campus of Case Institute of Technology, one of the country's top engineering schools to which women are also to be admitted, beginning autumn 1960. Case's present library is a choice example of overcrowdedness; its new library, to be completed in 1961, will be one of the nation's best planned and organized libraries.

Case, Western Reserve and John Carroll University work with both government and industry in the research field. Fenn College is noted for its cooperative plan that permits students to work part of their school term with leading Cleveland concerns. Baldwin Wallace College has strengthened its science curriculum. Medical research is carried on by Western Reserve School of Medicine and five leading Cleveland hospitals. Foundation, individual and corporate grants have financed research as well as cultural institutions.

A recent analysis by Cleveland Electric Illuminating Company's market research unit shows that Cleveland ranks fourth—after Chicago, Los Angeles, and New York—in number of persons employed in research; in the number of research laboratories, Cleveland ranked third. The survey, made by actual contacts, shows that about 375 companies maintain research programs in Cleveland-Northeast Ohio and operate



Meldrum & Fewsmith, Inc. Advertising Library, Mary Evalyn Crookston, Convention Tea Co-Chairman, librarian.

some 400 separate laboratories. This includes "the chemical shore," so dubbed because of the complex of chemical industries located there, the rubber industry of Akron in adjoining Summit County and the entire "Cleveland Corridor" area served by C.E.I.

It was found that Cuyahoga County alone has 91 per cent of the area's research workers and about 90 per cent of the area's research laboratories.

Since 1913 Cleveland has been the home of Nela Park, the first campus-type research center in the nation, operated by General Electric's Lamp Works. Among similar developments in the area are the B. F. Goodrich Laboratory at Brecksville and its Avon Lake Development Center; Republic Steel Research Center, Warrensville Heights; Parma Research Center, Union Carbide Corporation; Lewis Research Center (NASA), which has spent more than \$200 million in plant and equipment since 1941.

The American Society for Metals has moved to a new headquarters building in its \$20 million geodesic domed center development on a 100-acre site at Novelty in nearby Geauga County. This campus-type educational and research center includes the Metals Research Institute, the Metals Engineering Institute and the Metals Science University.

The Cleveland Engineering Society has recently completed a \$1.5 million engineering and scientific center near downtown Cleveland. It provides facilities for advanced education of technical groups and serves as headquarters for Cleveland's 52

technical and scientific societies. The Cleveland Chapter of SLA is an affiliate.

A survey by the Cleveland Chamber of Commerce found that the industries of the Cleveland area comprise well over 300 of the 450 four-digit listings of the "Standard Industrial Classification," and the area has industrial roots in *all* the major industries in the United States. This wide diversification of industry and the many commercial and financial establishments, trade and professional associations and services, in addition to the technical and scientific, comprise an interesting body of "know-how" and a challenge to specialized library service. Cleveland special librarians, of whom there are too few in relation to potentialities, are enthusiastic and cooperative.

In all the areas described, special libraries, whether maintained by a firm or drawn upon, play an important part. A directory of Cleveland Chapter special libraries, their scope and collections is being prepared for the Convention. A selected list of places to eat and other attractions will be provided. Cleveland weather is tempered by Lake Erie and early June is not always predictable. A light-weight wool suit would be in order. There may be rainy intervals. On the other hand, summer might be a little early this year, and it can be sizzling. Meeting rooms will be air conditioned.

In case you like to read before you travel, a few items are appended:

*Cleveland, The Making of a City.* William Ganson Rose. Cleveland: World Publishing Co. 1950.

A chronological account and a rich storehouse of information. Index, p. 1120-1272.

*Cleveland Doubles Size.* Raymond C. Lindquist. *Library Journal*, 84:3700-02, Dec. 1, 1959.

Describes the Business and Science Building, Cleveland Public Library, and the civic spirit that brought it about.

*Industrial Research in Cleveland-Northeast Ohio.* Market Research Unit, The Cleveland Electric Illuminating Co. 1958.

A factual survey, with statistical data.

*Vein of Iron.* Walter Havighurst. Cleveland: World Publishing Co. 1958.

The story of Pickands-Mather and 75 years of Great Lakes enterprise, fascinatingly told.

AGNES O. HANSON, Head  
Business Information Division  
Cleveland Public Library, Cleveland, Ohio

SPECIAL LIBRARIES

# This Works For Us . . .

## Library Clipping Service

The Union Electric Company clipping service is designed to furnish promptly newspaper items of interest to officers, department heads and other supervisory personnel. It contains news from all editions of the local newspapers, *Wall Street Journal*, *New York Times* and from papers published in the area serviced by Union Electric and its subsidiaries. This covers a large portion of Missouri, parts of Illinois and Iowa.

Clippings are taken by a library assistant each morning from three editions of the *Globe Democrat*, followed by the 11:15 a.m. and 1:15 p.m. editions of the *Post Dispatch*. The complete edition of the *Post*, carrying out-of-state news of Illinois and Missouri, is checked later in the day as are the two late editions for inclusion the following day. The library subscribes to the Missouri and Iowa press clipping services, which give wide coverage at a relatively small cost. This has simplified the task of keeping management informed of company news in the local papers of our large service area. We are vitally concerned with area development through our Planned Progress Program, and news of its activities and achievements is brought to us from the many small papers covered by the state press services. These items are sent each week and they appear as an extra page every Thursday.

When the clips from all sources are assembled, they are trimmed, subheadings removed and extraneous material eliminated. They are then pasted on sheets of paper, 10 x 13 inches, which have been consecutively numbered and preprinted with the masthead. They are dated as needed; each day's edition numbers three or four pages. The sheets are taken to the Duplicating Department by 1:30 p.m., where pictures are taken by the Xerox process, one master made from each page. Approximately 300 copies are run from Xerox masters. The sheets containing the original clips are retained by the library for a week, as many times it is necessary to furnish additional

copies of a page that contains a pertinent article.

The individual sheets are stapled together and delivery is made by the library messenger by 3:00 p.m. in the Main Building and by 3:30 p.m. in the Service Building. Addressograph facing cards with name and code are stapled to the copies going by company mail to superintendents of power plants and dams and managers of regional offices.

The assistant in charge of the clipping service is trained to search for news of interest to the company. Every item chosen is selected for its value to some particular department. Weather, community problems, new industry, other utilities, engineering developments, national or state legislation affecting the utility business, power and appliance sales figures and labor and employee relations are but a few of the subjects covered. Articles of special interest such as noise control, safety, air pollution, atomic power, solar energy or any suggestions for switching the diet of the pileated woodpecker from utility poles are welcome. Maps of proposed highways in the area and charts showing trends of business and production indexes are used regularly. No pictures are run as they do not reproduce well, and no advertising material is included.

Some departments retain a complete file of the *Service*, others keep only articles that interest them particularly. The library indexes the *Service* in detail, and it is bound every four months. Since its inception in 1954, it has proved to be not only a source of current news but also a valuable quick reference tool for company, area and community information.

MRS. ELIZABETH W. OWENS, Librarian  
Union Electric Company, St. Louis, Missouri

## SLA Book Now In Japanese

SLA's best-seller *Technical Libraries: Their Organization and Management*, edited by Lucille Jackson, has been translated into Japanese by Heihachiro Suzuki of the National Diet Library. It is available in Japan in a limited, hardbound, mimeographed edition.

# Have You Heard . . .

**Two Grants Aid Library Technology Project**  
The Council on Library Resources, Inc. has awarded two grants totaling \$22,600 to the American Library Association for its Library Technology Project. A grant of \$2600 will cover several small test programs to be conducted by the Chicago Paper Testing Laboratory, Inc. The \$20,000 grant will be used by Battelle Memorial Institute to develop a mechanical book-marking device, similar in size and ease of operation to a small adding machine, to replace the present hand methods. Battelle will conduct the project in two phases, the first to demonstrate the feasibility of the system, the second to construct a complete prototype. The present grant covers the first phase only.

## Study of Technical Information Personnel

The Modern Language Association of America is conducting a study under the direction of Leonard Cohan and Kenneth Craven to determine the national manpower needs for technical information personnel. The study will ascertain the specific needs of industry, government and research organizations for trained personnel, the suggested training—including foreign language training—recommended by these potential employers, the professional titles, salaries, duties and the immediate and future employment picture. The results of this initial survey will contribute to recommendations for the establishment of a four or five year college program to identify, recruit and prepare technical information professionals. For further information about the project write the Modern Language Association, FLP Technical Information Project, 50 Broad Street, New York 4.

## Report on Library Book Circulation Methods

*The Preliminary Study of Library Circulation Systems*, prepared by John Diebold & Associates for the Council on Library Resources, Inc. (*Special Libraries*, September 1959, p. 360), indicates that improvement of circulation procedures has reached a stalemate. Only some of the larger libraries are at present using mechanical equipment and in these libraries it is being used in most cases

for only a portion of the entire system. In addition, the equipment now used, while somewhat reducing the number of clerks required, has at the same time reduced the amount of information available to the librarian. Automatic data processing equipment should be justified on all factors, the study observes. The report concludes that "significant advances in the future will depend on looking at the circulation problem as a whole rather than in parts" and that before a satisfactory, automatic, integrated system for book circulation can be developed, detailed study needs to be made of the requirements an ideal system must meet. Copies of the 32-page mimeographed report are available upon request from the Council, 1025 Connecticut Avenue, N.W., Washington 6, D. C.

## Metals Division Fall Meeting

The Tenth Annual Fall Meeting of the Metals Division was held in Chicago, November 4-6, in conjunction with the National Metals Congress and Exposition. The more than 30 participating Division members visited the Institute for the Study of Metals and Argonne National Laboratories and attended the technical sessions held at Acme Steel. Throughout the Congress, Metals Division and Illinois Chapter members manned the SLA Booth, a miniature library, at the International Amphitheatre.

## Letters to the Editor

Ruth Savord's letter in the October 1959 *Special Libraries* challenges one to stand up and be counted as well as to give forth with further suggestions concerning the election of Special Libraries Association officers and other policies underlying the conducting of Association business.

I heartily agree with all of her suggestions except for the single slate of officers. This is contrary to the basic principle of choice and election. Has not at least part of the difficulty in the past been the fact that most of the membership has been voting without adequate facts and criteria on which to base a vote? Miss Savord suggests at least the introduction of Chapter Presidents and Division Chairmen at the Annual Business Meeting. As another step to-

ward a more "intelligent" vote, I would suggest that, with the presentation of the candidates for election to the membership, in addition to the biographical sketch and service record, we ask them to take their stands on current problems or issues which need resolution or determination by the Association. This is a well proven technique employed by such organizations as the League of Women Voters and could be implemented by asking each candidate to answer the simple question, "What do you think about?"

At the present time by way of suggestive issues:

1. The implementation of standards within our Association.
2. The length of the convention session and its attending problem of pre- and post-convention sessions, and the convention program itself.
3. The relation between divisional groups within Chapters and the Chapter itself versus or in addition to the relation between divisional groups within Chapters and the Division itself. The problem of the size of certain Divisions and Sections—how large or small to be an efficient working group?

Let us do away with an "unintelligent" vote based on superficialities in such a forward looking organization as Special Libraries Association.

ELIZABETH H. WEEKS, Research Division Library  
Raytheon Manufacturing Company,  
Waltham, Mass.

I have read with real interest the thoughtful letter from Ruth Savord in the October issue. All of her points are well taken, but the suggestion of having only a single slate of candidates seems to me of special importance. Having served on the Geography & Map Division nominating committee, I recall only too well the "monumental task" involved in finding two candidates equally qualified and willing to serve in each office, even in the less demanding Division offices.

The waste of resources in the form of defeated candidates who thereafter become unavailable is even more serious. As Miss Savord points out, this problem, too, would be eliminated by having a single slate of candidates.

Unless the average SLA member knows a great deal more than I do about most of the candidates, the multiple-candidate ballot is more a matter of coin-tossing than of exercising selective judgment. And the cold facts in the candidates' biographies aren't of much help in making a choice; if the two candidates for each office weren't pretty well matched in ability and achievement, their names wouldn't be on the ballot at all. Isn't the judgment of a competent nominating committee just as good as the haphazard choice of a bare 50 per cent of the general membership?

As to the length of the Convention, I know that the Geography & Map Division Program Committee was thoroughly frustrated by the lack of time allotted this year for Division activities and even more so by the edict that no field trips could be

planned except as post-convention activities. I got the general impression that the membership of our Division found the 1959 Convention less satisfying and constructive than any other of recent memory.

PAUL B. LEE  
General Drafting Co., Inc., Convent Station, N. J.

The letters of Miss Savord and Mr. Binnington in the October and December issues of *Special Libraries* respectively are stimulating and lead me to wonder if either has served on a Nominating Committee for the Association, at least since the Manual of Procedure was issued. (Editor's Note: A check of the files back to 1937 has revealed that neither has served on the Nominating Committee.)

I agree with Mr. Binnington that the present system of providing a double slate of nominees should be continued as the most democratic method, regardless of the headaches, and there are many, judging from my experience as Chairman of the Nominating Committee some years ago. However, his statement that the nominating procedures should be re-examined calls for comment. When I served, few suggestions were forthcoming, although the entire membership is always solicited. To the best of my recollection, only one candidate was mentioned twice. Perhaps the membership is at fault more than the procedures, which seemed to me very democratic.

As a constructive suggestion, why should not every Division be required to sponsor one or more candidates? If there is no response (and this is always the case when any questionnaire is issued in any organization), it would be an indication that no outstanding candidate was available in that Division. The Division Liaison Officer might be of assistance as well by urging members to participate. This method should be helpful to the hard-working Nominating Committee, for a candidate would have the well-considered endorsement of many and not one person. Miss Savord's suggested groupings of Divisions seems good, but it must be remembered that geographical location also must be taken into consideration and that the best of planned slates often is knocked into a cocked hat by refusals to run for election.

Let's hear from members of past nominating committees.

GENEVIEVE FORD, Former Librarian  
National Lead Company, Inc., South Amboy, N. J.

The enclosed may be of interest in filling a gap on the table of subscription bulletins in the November *Special Libraries*.

The Biological Sciences Division publishes a bulletin, *The Reminder*, in one volume of three issues each year. Issues appear in the fall, winter, and spring. The bulletin is usually mimeographed or offset and runs from 10 to 16 pages. Advertising is accepted. *The Reminder* carries Division

news, articles of interest to the membership, and reports from the committees and local groups. It is free to members and may be subscribed to by others for \$2 a year. All contributions, news notes, and subscriptions should be sent to me at this address.

WILLIAM K. BEATTY, Editor, *The Reminder*  
Medical Library, M 210 Medical Center  
University of Missouri Library, Columbia, Mo.

We have all noticed how certain trade magazines include a post-paid return card, bound in with the material. By using this, a reader may request copies of literature or sometimes even reprints of the articles. I have not noticed any application of this to the more professional journals or abstract journals and would like to suggest consideration of this idea: that such a card be bound in with an abstract journal, and arrangements be made to send the requester a copy or photocopy of the full article referred to by a given abstract.

This would admittedly be expensive to set up, but perhaps a temporary grant might be obtained in order to test the usefulness and acceptance of this method. Once operating, I am sure the system would be as economical as that of those large publishers who already handle literally millions of such cards. Presumably a small charge would be made to the requester, not enough to be prohibitive (taking up the loss by means of the small grant referred to above) nor so small as to encourage indiscriminate requesting. Again, upon getting such a system into full swing, perhaps

with several abstract journals filling requests at one processing center, moderate user charges would pay all costs.

It is my understanding that the trade magazines, in most cases, make no charge to their advertisers, now, for this service; the cost of the operation is small enough to be absorbed in the sale of the ad. There are obviously many details that would have to be worked out; I merely toss out this idea for any discussion that may follow.

RINEHART S. POTTS, Chief  
Technical Information Service  
Aero Service Corporation, Philadelphia 20, Penna.

The Decimal Classification Office is preparing a manual of its own practices in the application of the 16th edition of the *Dewey Decimal Classification* to books cataloged by the Library of Congress. While the immediate purpose is to satisfy a need of the Office itself and to ensure greater consistency in the use of the Classification in order to provide DC numbers on LC cards, publication at some future date is contemplated, so that classifiers in other libraries may have the benefit of knowing DC Office practices and interpretations.

Users of the 16th edition are warmly invited to write us indicating parts of the DC in need of clarification and suggesting questions they would like to see answered in this manual. Please address communications to the undersigned at the Library of Congress, Washington 25, D. C. Every suggestion and question will be carefully considered.

BENJAMIN A. CUSTER  
Editor, *Dewey Decimal Classification*

## SLA Sustaining Members

The following organizations have expressed their interest in supporting the activities and objectives of the Special Libraries Association by becoming Sustaining Members for 1960. These are additions to the 49 Sustaining Members listed in *Special Libraries*, January 1960, page 38.

AEROJET-GENERAL CORPORATION, Technical Information Office, Sacramento, California  
ARGONNE NATIONAL LABORATORY, Lemont, Illinois  
CHICAGO RAWHIDE MANUFACTURING COMPANY, Chicago, Illinois  
CORNELL UNIVERSITY LIBRARY, Ithaca, New York  
DOW CHEMICAL COMPANY, Chemical Library, Midland, Michigan  
FEDERAL RESERVE BANK OF NEW YORK, New York, New York  
FORD FOUNDATION, New York, New York  
GENERAL MOTORS CORPORATION, Public Relations Library, Detroit, Michigan  
KAISER ALUMINUM & CHEMICAL CORPORATION, Dept. of Metallurgical Research, Spokane, Wash.  
MARQUETTE UNIVERSITY MEMORIAL LIBRARY, Milwaukee, Wisconsin  
MINNESOTA MINING & MANUFACTURING COMPANY, St. Paul, Minnesota  
UNION ELECTRIC COMPANY, St. Louis, Missouri  
UNITED STATES STEEL CORPORATION, New York, New York  
UNIVERSITY OF MARYLAND, Theodore R. McKeldin Library, College Park, Maryland  
UNIVERSITY OF OKLAHOMA LIBRARY, Norman, Oklahoma  
UNIVERSITY OF TEXAS, Dental Branch Library, Houston, Texas

EDITOR'S NOTE: This list includes all applications received through January 8, 1960. Supplements will appear in future issues.

# Off the Press . . .

## Book Review

SUBJECT CLASSIFYING AND INDEXING OF LIBRARIES AND LITERATURE. *John Metcalfe*. New York: Scarecrow Press, 1959. 347 p. \$7.50.

This is Mr. Metcalfe's second book. The first, *Information Indexing and Subject Cataloging*, was published by Scarecrow Press in 1957 (review, *Special Libraries*, September, 1957, p. 341). This volume was a review and evaluation of the principles of cataloging and classification as developed in the past century. Metcalfe was until this year Principal Librarian of the Public Library of New South Wales; he is now Librarian of the University of New South Wales. He has visited libraries in Great Britain and North America under two Carnegie Corporation grants, one in 1934-5 and the second in 1947.

The present book is offered as a text based on the research done for the earlier work and on the author's teaching experience since 1937. Its organization reflects Mr. Metcalfe's thorough study of all approaches to subject identification of information and provides a broad, comprehensive framework for instruction in subject cataloging.

In the first six chapters, the history and basic principles of classification, notation, cataloging, indexing, abstracts and special bibliographies are set forth to provide a broad background for detailed study of the major methods now in use. Many examples of catalogs and indexes are discussed to illustrate particular methods and problems.

Subject organization of libraries as presently practiced is covered in detail in the next six chapters. Classification is discussed in chapters on shelf arrangement, the classified catalog, number building and "UDC and Synthetic Classification." The Dewey Decimal Classification is used throughout for examples and discussion, though Cutter's Expansive Classification and the Library of Congress schedules are also considered. Subject headings and the dictionary catalog are fully covered, with attention to construction of headings, cross references, subheadings, inversion, punctuation, filing order, tracings and authority files or lists.

A separate chapter is devoted to "Special Bibliographies, Materials and Methods" and here the handling of pamphlets, maps, pictures, films, etc., is discussed as well as centralized cataloging, special classifications and indexes, coordinate indexing and coding for mechanical selection. The final chapter, "Practical Work and Subject Determination," discusses the role of the cataloger and explains subject determination for both classification and subject headings. In addition, the book contains exercises and answers for use with most chapters.

Several brief appendices complete the book. Of special interest among these is the "Tentative

Code of Rules for Alphabetic-specific Entry" (dictionary catalog). This code is based on Cutter's *Rules*, says Mr. Metcalfe, "and if they owe anything to anyone's thinking besides Cutter's and the writer's it is to Kaiser's, expressed in his *Systematic Indexing*, 1911."

For the practicing special librarian this book, though it is a text, can be recommended on two counts. First, the cataloging rules just mentioned and the analysis of Cutter's rules merit thorough study. Second, it is a refreshingly practical, straightforward and comprehensive approach to present problems of information handling. Metcalfe's way of thinking, and of teaching, can best be summarized by his own statement at the beginning of Chapter 1:

*If all methods are dealt with fundamentally and comparatively the subject is not easy, and cannot be made so. . . . In the last fifty years, from about 1907 to 1957, some supposed authorities have left it far more confusing than it was originally, without their competing metaphysical theories and jargons, their evolutionary orders, their consensuses, their facets, phases and foci. Their bibliosophy may be excluded as much as possible, or left to appendices, but even so, and however explanation may be simplified, the student cannot expect without thought and exercise to understand even such orthodox and long-established practices as specific entry and relative indexing.*

SHIRLEY F. HARPER, Librarian  
A. G. Bush Library of Management,  
Organization, and Industrial Relations  
University of Chicago

## New Serials

INDEX CHEMICUS, a monthly index to 50,000 new chemicals reported annually in the scientific literature, will be published by Eugene Garfield Associates early in 1960. In addition to complete bibliographical information, the index will contain listings of chemical names, structural diagrams and molecular formulas. New chemical compounds will be reported within 30 days after original publication. The index will be cumulated monthly, quarterly and yearly. For further information write Eugene Garfield Associates, 1122 Spring Garden Street, Philadelphia 23, Pennsylvania.

JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, edited by Dr. Richard Bellman of the RAND Corporation, will publish carefully selected mathematical papers treating classical analysis and its manifold applications. Papers devoted to the mathematical treatment of questions arising in physics, chemistry, biology and engineering will also be encouraged, and in these papers the emphasis will be upon the analytical aspects and the novelty of problem and solution. Subscription or-



ders for volume 1, 1960, priced at \$16, should be directed to Academic Press, Inc., 111 Fifth Avenue, New York 3, New York.

JOURNAL OF MATHEMATICAL PHYSICS, a bi-monthly periodical edited by Elliott Montroll, will be published by the American Institute of Physics beginning in February 1960. The journal will report new mathematical methods for the solution of physical problems as well as original research furthered by the use of such methods. It will also include review papers on mathematical topics for physicists. The annual subscription rate is \$10 in United States and Canada, \$11 elsewhere. Orders should be addressed to the American Institute of Physics, 335 East 45th Street, New York 17, New York.

### Chapter Union Lists

The 1959 edition of "A List of Services and Periodicals in the Special Libraries in the Chicago Area," representing holdings of 81 Illinois Chapter member libraries, was published in the November and December 1959 issues of *Illinois Libraries*. Intended as a local supplement to the H. W. Wilson Company's *Union List of Serials*, the list excludes all libraries whose holdings are given in that publication.

The New Jersey Chapter is now preparing a Union List of Serials in New Jersey. One letter of the alphabet is mailed monthly so that at the end of two years subscribers will have a complete list of holdings. The service is available at the annual rate of \$15.50, and orders should be addressed to Dr. F. E. McKenna, Air Reduction Co., Inc., Murray Hill, New Jersey.

### Labor Literature Index

The Carr Publishing Company of Boyce, Virginia, has announced plans for publishing a comprehensive Labor Literature Index to reflect quickly and accurately organized labor's thinking on both national and international economic, political and social issues. The new service, to be published quarterly with the fourth issue becoming both a cumulative and annual issue for the year, will index all major labor periodicals, publications, convention proceedings and labor testimony at Congressional hearings. Monthly bulletins will be furnished to keep the service current, and microfilm records will be maintained of all source material for a duplication service to subscribers. Those interested may obtain sample pages from the publisher.

### Author Index Planned

G. K. Hall & Co., 97 Oliver Street, Boston 10, Massachusetts, has announced plans to publish a complete author index, cumulated into one alphabet, to *Psychological Index* (1894-1935) and *Psychological Abstracts* (1927 to date). The index will be reproduced in a limited edition in eight

books bound in library buckram. The prepublication price is \$265 per set.

### SLA Authors

BROWN, ALBERTA L. Special Librarianship in the United States, its history and future potential. *Revue de la Documentation*, vol. 26, no. 4, November 1959, p. 94-6.

CULVER, WAVE E. Effects of Cold on Man. *Physiological Reviews*, Supplement no. 3, October 1959 (Part II).

GEORGI, CHARLOTTE. *The Businessman in the Novel* (Library Study Outlines, no. 1). Chapel Hill: University of North Carolina Library, 1959. 36 p. pap. 75¢

———. *Paperbound Books in Business and Economics: A Bibliography, 1959*. Chapel Hill: University of North Carolina Library, 1959. 11 p. pap. 50¢

MAPES, CARL H. Make Your Library Globe a Space Age Tool. *Library Journal*, vol. 84, no. 22, December 15, 1959, p. 3818-9.

RAMER, JAMES D., comp. *Bibliography on Plasma Physics and Magnetohydrodynamics and Their Applications to Controlled Thermonuclear Reactions*. College Park, Maryland: Engineering and Physical Sciences Library, University of Maryland, 1959. 112 p. pap.

SHAFFER, ELLEN. Black Magic. *Library Journal*, vol. 84, no. 22, December 15, 1959, p. 3832.

STEBBINS, KATHLEEN B. The Forward Look in Library Education and Recruitment. *Book News*, vol. 14, no. 2, October 1959, p. 17-9.

STRIEBY, IRENE M. Getting More Value from the Company Library. *The Management Review*, vol. 48, no. 6, June 1959, p. 52-4. (Abridged from *Harvard Business Review*.)

VOIGHT, MELVIN J. The Researcher and His Sources of Scientific Information. *Libri*, vol. 9, no. 3, 1959, p. 177-93.

### MISCELLANEOUS REFERENCES

#### Librarianship

CURRENT RESEARCH AND DEVELOPMENT IN SCIENTIFIC DOCUMENTATION, no. 4 (NSF-59-28), 86 p.; no. 5 (NSF-59-54), 104 p. Washington, D. C.: National Science Foundation, Office of Science Information Service, 1959. 50¢ each. (Available from Superintendent of Documents, Government Printing Office, Washington 25, D. C.)

DIRECTORY OF THE MEDICAL LIBRARY ASSOCIATION, 2nd ed. Hamden, Conn.: The Shoe String Press, Inc., 1959. 316 p. \$7.

Lists 552 libraries alphabetically by state and then city. Entries include name, address and telephone number of library, key number, year founded, source of support, annual budget, name of librarian and associate or assistant, staff, number of volumes, pamphlets and current periodicals, annual circulation, interlibrary loan privileges, classification system and special collections.

### SPECIAL LIBRARIES

Appendices give alphabetical list of members with addresses and affiliations and an index to libraries and special collections.

**DEWEY DECIMAL CLASSIFICATION AND RELATIVE INDEX**, 8th abridged ed. Lake Placid Club, New York: Forest Press, Inc., 1959. 496 p. \$6.50.

Abridgement of 16th edition. Contains 2097 fully explained and annotated tables entries, 18,000 index entries, summaries of the classes, divisions and general works and schedules of form divisions and numbers divided like other numbers.

**HANDBOOK FOR LIBRARY TRUSTEES**, rev. ed. *Marian Manley Winsler*, ed. New York: R. R. Bowker Company, 1959. \$5.

Enlarged and up-dated with six new sections dealing with fund raising, library and community organizations, bond issues, basic requirements for library trustees and the library tax increase.

**INDEXES AND INDEXING**, 2nd ed. *Robert L. Colli-son*. New York: John de Graff, Inc., 1959. 200 p. \$4.50.

Part One discusses general and specific aspects of the indexing of books; Part Two deals with indexing other materials and includes chapters on co-ordinate and mechanized indexing and a suggested list for further reading; Part Three is a reference section.

**MUSIC INDEX 1957 ANNUAL**. Detroit: Information Service, Inc., 10 W. Warren St., 1959. 705 p. \$48.50.

Authors of leading articles and books have been included for the first time. Several changes and additions have been made in subject headings, more liberal use of cross references and more extensive combining of citations with identical titles by different authors.

**SEARS LIST OF SUBJECT HEADINGS**, 8th ed. *Bertha M. Frick*. New York: H. W. Wilson Co., 1959. 610 p. \$5.

Features 300 new subjects, a new preface, a new section on "Headings to be Added by the Cataloger" and a completely rewritten section on "Suggestions for the Beginner in Subject Heading Work." Also has wide 3½ inch right margins for alphabetical additions.

### Bibliographic Tools

**BOOKS IN PRINT**, 12th ed. *Sarab L. Prakken*, ed. New York: R. R. Bowker, 1959. 1972 p. \$17.50.

**CATALOG OF MEXICAN PERIODICALS**. Mexico 5, D.F.: Depto. De Libreria, Centro Mexicano De Escritores, A.C., Rio Volga 3, 1959. \$9.75.

Contains 1450 entries in Spanish listing wherever possible title, publisher, frequency, date of first issue, number of issues published, contents, name of founding and present editors, format, number of pages, kind of paper, name and address of distributor, subscription rate, circulation, advertising and illustrations.

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**ULRICH'S PERIODICALS DIRECTORY**, 9th ed. *Eileen C. Graves*, ed. New York: R. R. Bowker Company, 1959. 832 p. \$22.50.

19 new subject headings and expanded coverage of foreign periodicals with over 400 Slavonic titles. New features are inclusion of subscription prices of foreign periodicals in American currency, alphabetical listing of outstanding indexing services and a selected list of current newspapers with addresses and circulation figures, both United States and foreign, including foreign language papers published in the United States.

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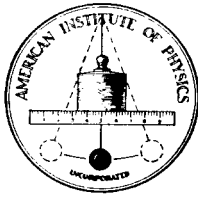
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