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Cardiovascular Research

The contents of the

January, 1968 issue, Volume 2, No. 1, are set out below

Electrical Aspects of Human Cardiac Activity: A Clinical-Physiological Approach to Excitation and Stimulation: Dirk Durrer.

The Nature of the PR Interval: Fernand A. Roberge, Reginald A. Nadeau, and Thomas N. James.

Plasma Angiotensinase Activity in Relation to the Breakdown of Phenylthiocarbamyl-Angiotensin II Amide in Hypertensive and Normotensive Patients: E. C. Osborn, G. Jerums, and Barbara A. Jupp.

Blood Angiotensinase Activity in Relation to the Breakdown of Angiotensin II Amide and Non-isotopic Phenylthiocarbamyl-Angiotensin II Amide in Hypertensive and Normotensive Patients: E. C. Osborn, G. Jerums, and Barbara A. Jupp.

Dose-response Relationship in Angiotensin Bioassay: T. S. Ing, R. N. Anderson, Mitchell Passovoy, and O. J. Lucis.

Experimental Myocardial Infarction by a Wedge Method: J. Russell Rees and V. J. Redding.

Vasopastic Elements in Myocardial Infarction Following Coronary Occlusion in the Dog: J. Grayson, Mona Irvine, J. R. Parratt, and J. Cunningham.

Effect of Beta-Adrenergic Blockade on Coronary Blood Flow: Paul D. Stein, Harold L. Brooks, James L. Matson, and John W. Hyland.

Effects of Dipyridamole on the Dog Heart-Lung Preparation: Joseph Simaan and George Fawaz.

The Relation Between Pressure and Flow in the Pulmonary Circulation in Normal Subjects and in Patients with Chronic Bronchitis and Mitral Stenosis: P. Harris, N. Segel, and J. M. Bishop.

The Influence of the Airways Resistance and Alveolar Pressure on the Pulmonary Vascular Resistance in Chronic Bronchitis: P. Harris, N. Segel, I. Green, and E. Housley.

Electrocardiogram of the Normal Mouse, *Mus Musculcus:* **General Considerations and Genetic Aspects:** Alberto N. Goldbarg, Herman K. Hellerstein, Jan H. Bruell, and Alex F. Daroczy.

Haemodynamic Effects of Pharmacological Denervation of the Heart at Rest and During Exercise in Patients with Chronic Lung Disease: A. Lockhart, M. Tsareva, and F. Schrijen.

Instruments and Techniques:

A New Instrument for Apexcardiography: B. W. Watson, P. Gay, and J. S. Fleming.

This new journal is published in association with the British Cardiac Society. Cardiovascular Research is mainly for the publication of basic research. The range of subjects covered by the journal include physiological, pathological, pharmacological, biochemical, hæmodynamic, surgical, and similar advances in the study of the heart and circulation. The first issue of this new quarterly journal appeared in January, 1967. Subsequent issues are published in April, July and October.

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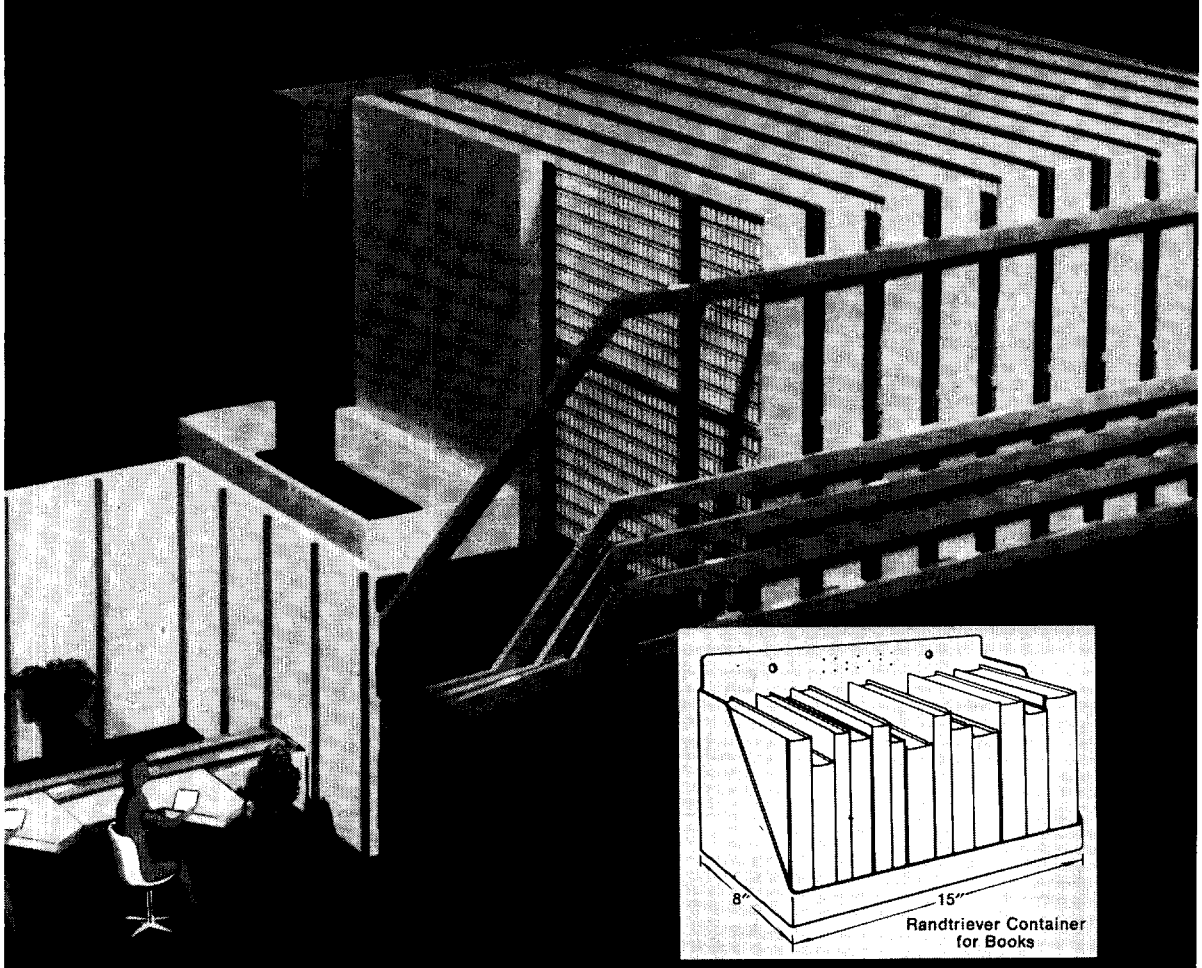

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Publication 1493; Committee on Research in the Western Pacific, 1967, [x] + 142 pages, paper, $7.50

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Discusses communication practices and related information needs of behavioral and social scientists, possible facilities and organizational arrangements that would improve access to necessary data, and the potential of computer technology for altering and improving the nature of communications. Also presents recommendations for reaching solutions to the problems of developing new data resources and services and information systems.

Publication 1575; Committee on Information in the Behavioral Sciences, 1967, [xii] + 68 pages, paper, $2.50

Criteria for Selection and Design of Residential Slabs-On-Ground

A study of concrete slab-on-ground construction for the habitable portions of light residential structures. Presents recommendations that should assure sound residential slabs by defining the conditions and appropriate limitations of use.

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Publication 1498; National Academy of Engineering and National Academy of Sciences, 1967, [x] + 142 pages, paper, $4.50

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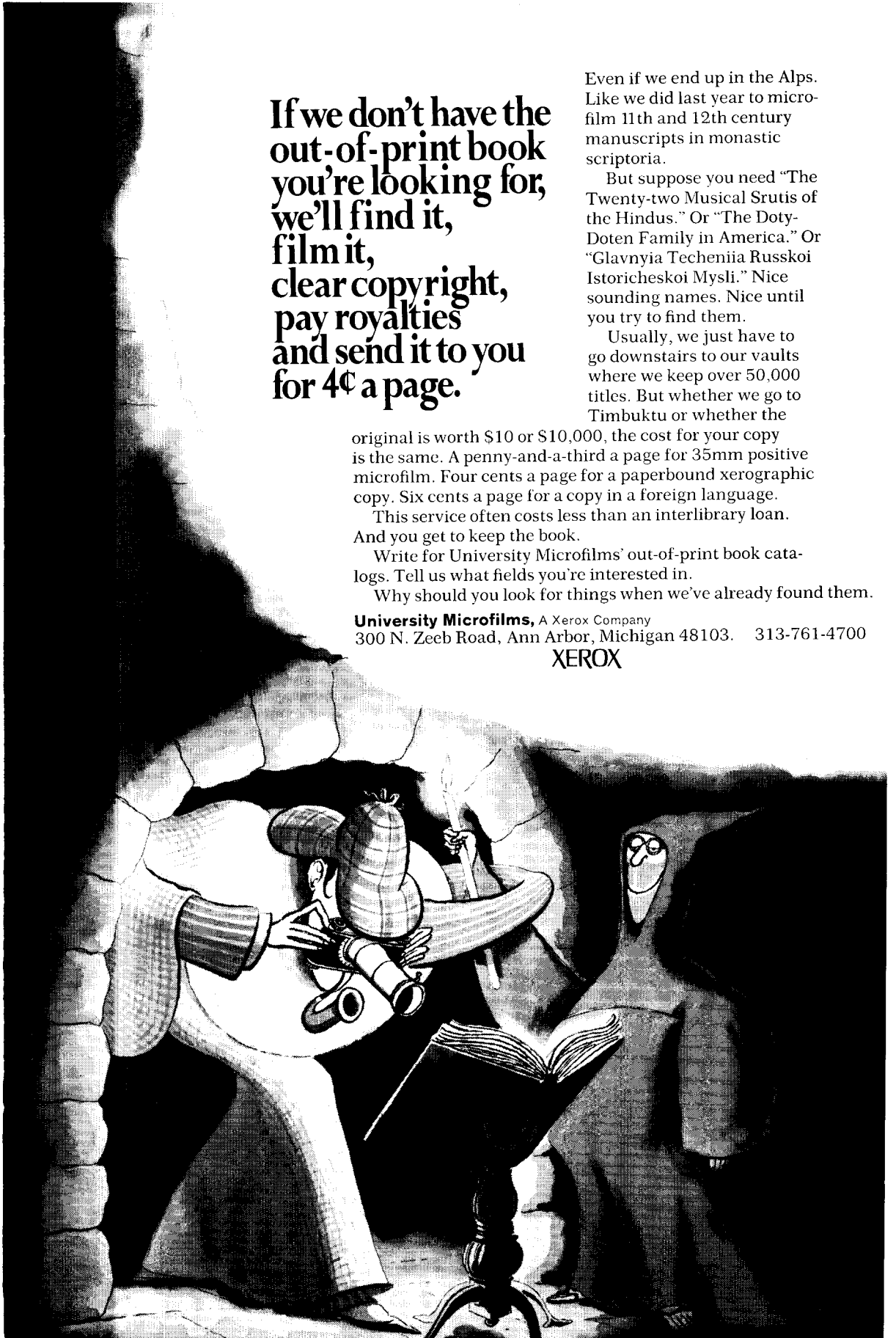

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Dollar Value

IN THE NATIONAL advertising of a widely known and respected manufacturer of stereophonic sound systems there appeared recently a questionnaire that had only a remote tie with their product. They asked the reader/respondent to place a value on some of the tangible and intangible things that we usually take as part of our heritage of life, liberty, and the pursuit of happiness. "How much would you pay to keep your wife one more year?" "If you have a telephone at home and if you assume it costs $20 a month, how much more would you pay rather than be deprived of it?" The advertising pointed out that our determination of "value" does not put a "market value" on a wife because of age, size, or weight or on a telephone because of its color, lighted dial, or kink-free cord.

These questions, somewhat humorous in tone and yet serious in their intent, give rise to a further concentration along the line of value as that term applies to Special Libraries Association membership. What value do you place on your choice of professional activity and on the professional associations you have chosen to join and support? Rather than be deprived of the possibility of continuing to be active in your occupation, what would you be willing to pay? The answers do not come easily for these questions, any more than they do for the ones that appeared in the advertising.

What, for example, is the value to you in U.S. or Canadian dollars of the personal contacts you have made or deepened through the local, regional, and international meetings of SLA? How much would you pay to keep the best friend you have made through SLA for one more year? What is the worth of the materials you have been able to borrow or exchange because you knew where or whom to ask as a direct or indirect result of your Special Libraries Association membership? Can you place a price, please, on the best idea you have garnered from the pages of *Special Libraries* or from one of the Chapter or Division publications? Is there a money equivalent for the help SLA once gave in helping you find a new job or to locate a new associate for your own staff?

Perhaps none of these Association activities has helped you, perhaps none ever will be central to your need. In that unlikely circumstance you may think of your membership as a pilot thinks of his parachute. He regularly inspects and renews the harness and the fabric of that item at an increasing expense—even though he may never have required its use. And he does this, not as a favor to others, but for himself, since a single instance of serious activity for that parachute will pay for its keep for a lifetime. We're faced with a necessary dues increase. As you dig down for the extra dollars for next year perhaps you will conclude that it isn't the tangible "features" of our Association that cause you to be so willing to do the necessary digging. The value of the Association—apart from all measurable considerations —is the thing itself, and it is just too great to lose.

CHARLES H. STEVENS
Chairman, Advisory Council

The fascinating subject of collecting dance material is described graphically in terms of the attendant pleasures and pains of amassing, analyzing, processing, caring for, and coddling the carefully hoarded wealth of the Dance Collection, a segment of the Library & Museum of the Performing Arts, The New York Public Library at Lincoln Center. Because the greatest growth of the collection has occurred under the stewardship of the author, the history of its development, the problems met and solved, the problems still unsolved—all the facets of documenting the challenging, changing art of the dance—are discussed with humor and authority. Old books and manuscripts, nineteenth century prints, twentieth century files, choreographic notation, oral history tapes, photographs, films, and automation, all are being marshalled to aid the archivist in preserving records of a heretofore barely recorded art.

Creating Tangible Records For an Intangible Art

GENEVIEVE OSWALD

THE LATE CURT SACHS, eminent musicologist whose career encompassed decades as an art historian and as an anthropologist, has written:

> The Dance is the mother of the Arts. Music and poetry exist in time; painting and architecture in space. But dance lives at once in time and in space. The creator and thing created, the artist and the work are still one and the same thing. Rhythmical patterns of movement, the plastic sense of space, the vivid representation of a world seen and imagined—these things man creates in his own body in the dance before he uses substance and stone and word to give expression to his inner experiences.

The fact that dance lives in time and space leads to the consequence that dance is quickly lost as time passes, indeed as soon as the curtain falls or the performance ends; that dance is deprived of survival in the concrete substance of word and stone. The challenge of documenting this elusive art fascinates all of us who have confronted it. What are the archives of performances of the past, even of yesterday? Today we can film and notate, but the records of the past, even of yesterday, are meager and imperfect and the archivist must seek them far and wide. Graphic artists, good and bad, recorded moments—or poses—of dance, of dancers, of dance scenes. Critics wrote about them; so did historians, biographers, social historians. Dancers and other theatre people kept clippings, scrapbooks, letters, and many who had much to say wrote books themselves. Any competent librarian can imagine what sorts of books to collect. But the challenge of documentation lies beyond books and the obvious kinds of photographs and prints.

From the beginning, the Dance Collection of the Museum of the Performing Arts, Lincoln Center, New York, has had to innovate, to expand the usual concepts of collecting. It is extremely fortunate that some of our larger gift collections were assembled by persons with a keen sense, not only of what was beautiful and important, but of what was good documentation as well. The collection is much more than a library in the usual sense to the art it serves; it is an archive aiming at total documentation where not only the history but the continuity of the art of dance is being preserved on tape, on film, on recordings, in prints, photographs, clippings, in magazines and books, and by any new techniques that may be devised.

That the subject is almost totally undeveloped bibliographically should not be surprising. Even to define the art of dance is baffling: as Sachs says, the word "art" itself is misleading; "One almost fears to use the word, for its present-day significance, exaggerated and at the same time circumscribed,

is not sufficient to explain what the dance in all its richness really is."

The anthropologist claims that in the "life of primitive peoples and of ancient civilizations scarcely anything approaches the dance in importance; it provides bread and everything else that sustains life." Faubion Bowers, speaking of dance in the East, says that in India and Java dance is found everywhere; there are performances in theatres, temples, department stores, and village inns—in Sumatra every young girl learns to dance, in Bali dance is as important as earning a living, in New Caledonia merchants in the market place dance out to show their wares. What about a more complex society such as our own? In the United States, according to a conservative estimate made by *Variety,* six million people in 1956 attended the ballet, there were two million serious students of theatrical dance and 200,000 dancing schools. The extent of the undoubted increase since then is anybody's guess. During the last two weeks in April 1967 half a million people attended ballet performances at Lincoln Center alone; nationwide attendance far exceeds that of baseball; and even such a leisure-time activity as folk dancing is supported by 134 magazine-type publications.

Dance Literature

While it is necessary to emphasize the importance of non-book materials, dance is not without an accumulation of several centuries of printed records. The dance does not have anything comparable to *Grove's Dictionary of Music and Musicians* or an adequate biographical dictionary, but it has a great literature of its own. It is a highly developed art with articulated traditions, a long history of technical manuals, a codified technique, and a history of great reformers, choreographers, and performers. Its Beethoven is Jean-Georges Noverre; its Haydn, Salvatore Vigano; its Manet, Filippo Taglioni; its Dégas, Jules Perrot; its Tchaikovsky, Ivan Ivanov; its Brahms, Marius Petipa. Glancing at current figures, one might say Balanchine is its Stravinsky, and Tudor a less prolific Picasso.

From a historical point of view, however, the art of dance has serious limitations in that the dance is performer-oriented rather than choreographer-oriented; it possesses no easy means of recording itself. Dance has no equivalent of the musical score or the written text; therein, indeed, lie the pleasure and the pain of documenting the art. Dancers have, because they must have, prodigious kinesthetic memories; the true literature of the dance is transmitted largely by kinesthetic rote. The feat of remembering the thirty works of an average dance repertoire could be matched by the members of an orchestra if they performed without score thirty pieces of their annual repertoire.

Total Documentation

Unhappily, the Dance Collection cannot keep living dance companies on its shelves. Short of that, its comprehensive aim is to preserve somehow every aspect, historical, theatrical, educational, therapeutic, economic, of every phase of dance: ballet, modern, "expressionistic," social, ethnic, primitive, folk, national, and variety—and to gather complementary materials of all kinds. Edgar Varèse, the composer, says that entertainment is from the hips down, art from the neck up. Our goal is total documentation, head to toe.

We have attempted to assemble a reference collection devoted to the literature and iconography of the dance that will transmit not only the history of the art but the very choreography itself in tangible form. With that aim in mind we could not limit our acquisitions to books and pamphlets. The subject has determined the nature of material collected: oral history tapes, motion picture films, prints, photographs, librettos, letters, manuscripts of all kinds, clipping files, original decor, and costume designs. Ninety-seven per cent of our acquisitions are non-book in nature.

What can the user of these resources obtain from them, whether a choreographer, a dancer, a critic, or a historian? He should be able, for example, to compare a current performance of Carla Fracci in *La Sylphide* with that of Marie Taglioni, who created the role a century ago; to reconstruct an Elizabethan court dance, an Italian tarantella of the nineteenth century, or a Ceylonese devil dance of the twentieth. He can determine what make-up Nijinsky wore in *Scheherazade,* read the

correspondence and exchange of telegrams that form an account of Nijinsky's rupture with Diaghilev, or learn the problems Picasso faced in working on the ballet *Parade* from letters in his own hand; contrast the theories of Noverre, an early reformer, with those of Fokine of the twentieth century, or compare the modern dance of Isadora Duncan with that of Denishawn, Martha Graham, and Doris Humphrey. A researcher should expect to find the exotic tango as richly documented as the exquisite court dance of the sixteenth century or the cha-cha or frug of yesterday.

Most of the known rarities in the field of dance publishing are represented by some twenty-six thousand books and six thousand librettos in the collection. One of the earliest documents is the manuscript of a Jewish master who called himself Guglielmo e del Giudeo, a compendium of dances made for his own use, in his own hand, among them several dances he had notated, choreographed by Lorenzo de Medici.

Of the pictorial materials (books, after all, account for less than 3 per cent of the collection) the 450 drawings and water colors for ballets include designs by Chagall, Berman, Benois, Bakst, and Beaton, collected not as representative work of these artists but for the color and feeling given to the reconstructed account of the ballets they represent. Over six thousand woodcuts and engravings, some dating from the Middle Ages, provide a graphic record of dance scenes both social and theatrical, with a heavy concentration in the Romantic period. At that point, the end of the Romantic era, photography enters to amplify the record with eighty thousand photographic prints and negatives, some by the distinguished photographers of our modern era, including Carl Van Vechten, Arnold Genthe, Edward Kales, George Platt-Lynes, Gjon Mili, and Cartier-Bresson. Filling out the story are some 150,000 programs and reviews, as well as sixty thousand manuscripts and letters documenting the lives of the artists of the dance.

Miss Oswald is curator of the Dance Collection, Research Library of the Performing Arts, The New York Public Library at Lincoln Center. Her article was originally prepared for presentation at the meeting of the Museum Division, May 31, 1967, during SLA's Annual Convention in New York City.

Recreating Choreography

Yet with all this material we are still, as far as theatrical dance is concerned, talking about externals: we are talking only about and around dance itself. Recently a young woman who wanted to recreate *The Black Crook,* a theatrical extravaganza of the nineteenth century, wrote and asked us to send her the choreography. The work had not been notated and we had no choreography to give her, but we could help a bit. A program contained the synopsis of the action, the Music Division provided us with the music, illustrated music-sheet covers supplied details of costume and stage design and even characteristic groupings for some of the numbers, our clipping file gave us a personal note on the style of the performers, and a brief study of the state of development of the toe shoe and ballet technique ruled out some of the balletic vocabulary that is familiar to us now. In short, we were able to tell her a great deal about *The Black Crook,* but not to outline even five consecutive steps of the actual dances.

With our new film archive, however, our hopes for the future soar. Knowledgeable dance critics are no longer unheard-of; yet the best critic's knowledge is partly based on faint remembrance and uncertain hearsay. With our film collection we hope for the first time in the history of the dance to provide the critic, the historian, and the general public with the opportunity to analyze the differences between the various versions of a familiar ballet such as *Swan Lake* or the choreographic variety given so loved a theme in ballet as *Romeo and Juliet.* By means of cinematic record the performing style of Ulanova or Fonteyn could actually be compared with that of Tallchief in a single study session. A responsible corps of critics and writers, able to draw upon such material, offers new hope that the quality of dance

writing may become as serious and realistic (and by realistic I mean based on tangible evidence) as that which already exists in art or literature. Too, our motion picture archive will permit us to salvage some of the ethnic dances of the emerging nations before their traditional patterns are eroded or sophisticated by the incursion of monocultural civilization.

Our oral history archive supplies an alternative for and a supplement to the published biography or the performance history, being often more freely informative than edited and printed memoirs. Recently I heard a psychologist remark in jest that we all have thousands of tape recordings within us of what we want to say and are constantly rehearsing them. Dancers, choreographers, and designers are thoughtful and articulate, but have little time to write; we hope to capture some of this "rehearsal time."

As the Dance Collection has developed, our concepts of what must or can be done to collect the relics of the past and the records of the present have undergone surprising changes. The bibliographic poverty of the subject and its very nature have compelled us to set our collecting meshes wide. And in this perhaps we are most fortunate. In an age of automation geared to doing more of the same thing faster and more effectively, the emphasis is going to shift. It is not difficult to imagine that the really great archive of the future, whether of art or science, will need manuscript collections, oral history tapes, and still and motion pictures. The present concern for quick retrieval might very well be superseded by a need to fill out the picture with the richest variety of materials.

Problems of Processing

Librarians should be warned, however, that there are difficulties in processing and caring for such materials. The books, only 3 per cent of the acquisitions, are processed by the New York Public Library's technical services division. All the rest must be handled by Dance Collection staff. We have become very familiar with the problems of processing, of collecting, and of maintenance.

In recording a nonverbal art there can be few barriers in either collecting or servicing. There is a need for dance librarians to be at ease in many languages, and to have a natural facility for working with materials of many kinds. Each of the different forms of record—prints, films, tapes—requires a staff skilled in cataloging and handling a unique commodity. Our film librarian must be a choreographic expert, able to identify an excerpt from a ballet located in a silent working film; he will quickly learn that copying a kinescope may require a boosting of the sound track, that the way to insure copies for the future is to have a master negative made of every film, that our richest sources are the amateur, silent, unedited footage, which he must identify not only as to individual ballet but by sections of that ballet.

Filming Great Works

We feel a responsibility not only for collecting films that have been made but for finding a means of putting on film the great works of the current repertoire. There are some real and imaginary objections to the filming of professional dancing, however, that the archivist must cope with. One concerns the danger of choreographic plagiarism. For the choreographer's protection we have each user of a film sign a statement of purpose, which we keep on file. Another, not really applicable to filming for archival purposes, stems from the dance union's fear of the advent of the videodisc, which might replace live with canned dancing. Irrational as it may seem, the union has considered the archival collection as a potential source for large-scale commercial use in the preparation of these videodiscs. Only recently have they begun to understand a library's commitment to restricted use of its material.

More entirely imaginary are the fears of the dancer of twenty that his youthful performance is not up to snuff, for the very same performance will attain luster with age, and at fifty that dancer will be a frequent viewer of his earlier film record (if he has been persuaded to allow it to be kept).

Oral history tapes also require particular archival care, both in the initial recording, which should attempt to cover conflicting

views of theoretical or historical points that may be controversial, and in the restriction of the use of material likely to arouse professional animosities or damage reputations.

Our collection of six thousand prints and 450 original designs requires all the special handling needed by such material the world over, but a further problem is added by the attitude of those looking at the prints. To the dance researcher they tell a story; and he is voracious, often consuming many prints an hour, in his quest for information or for corroboration of a theory; his manner is not always the studied scrutiny of the connoisseur. To reduce the wear and tear on our print collection and to enable the reader to refine the selection of prints he wishes to see, we shall borrow a technique often employed by museums with large print collections; we are planning to place a small photograph of the original on the catalog card, thus permitting a user to make certain prejudgments concerning the print before he handles it.

Prints and Negatives

Largest and most heavily used of our documentary records is the photographic collection. In addition to normal wear and tear (it is possible for a serious researcher to look through five hundred photographs in a two-hour period) we have the problem of aging and fading, and the servicing of large, unweeded negative collections donated by photographers. We not only are responsible for the quality of the prints made up from the negatives in our care, but must further reassure the photographer that prints which show the dancer in an unfavorable position —line and position are all-important in ballet—are not made up at all.

In size and completeness each of these groups or types of material forms a small collection in itself. All of them must be indexed or cataloged. The photograph has little value unless it is indexed under the title of the work and under the names of those who appear in it, a costly process. To complicate the situation a bit more, there were no rules for cataloging any of this kind of material when the collection was begun in 1944. In trying to work out a cataloging style and a set of rules for my staff in 1948, I found there were four different ways of cataloging prints in New York's museums and libraries, and five different styles for cataloging letters within the various collections of the New York Public Library alone. The second part of the Anglo-American code on non-book material may not be the most practical answer for many, but it does provide guidelines; and, happily, collecting is divided into two types of material—book and non-book—while fugitive, ephemeral, and other phrases that imply that a print or phonograph record does not have the toughness, the longevity of a book are dispensed with.

Several years ago, a prospective donor became excited with the variety of our materials and remarked with delight that we had "collections of all kinds of things," whereupon a staff member observed that we had all kinds of catalogs, too; one for books, one for photographs, one for prints, one for periodical indexing, and so on. Interfiling the cards from these various catalogs so that a reader could find, in a single place, all the material on a subject or a person, had proved impossible, even with the use of color-topped cards and other devices.

Four years ago, when the Dance Collection became a full-fledged division of the New York Public Library, it was apparent that something had to be done to remedy this situation. If you will remember the enthusiastic articles being published at the time, 1963-1964 was the golden age of data-free theorizing on book catalogs and automation. Very shortly we found ourselves committed to a book catalog and then, after a brief flirtation, committed to an automated book catalog, computer produced, six volumes in size, with an initial grant of $72,000 from the Ford Foundation. The Polynesians, a marvelously sensitive people, never say, "the older I get," but, "the more I learn." Either phrase is an apt description for the rest of our automation story.

Our book catalog has grown in concept from six to eighteen volumes and from $72,000 to $180,000. Its future sale price has likewise risen from $100 to $300.

Some of this expansion is accounted for by an actual increase in the book and non-book materials in the collection. Much of it is due to the discovery that there were many more dance entries in the non-dance catalogs

scanned than had been estimated. Some of the expansion is due to a decision to add depth to the subject analysis of the materials cataloged by increasing the number of subject headings under which a particular item might be found. Then, too, a decision was made to put all of the entries—author, subject, title, and so on—into one alphabet. Originally a division between authors and subject had been planned. The new arrangement called for the working out of new filing rules, and this, in turn, had an important effect on the degree of sophistication required in the data-processing aspects of the project.

There was no subject heading list for dance and allied subjects suitable for a project of this scope. The subject headings then in use were too few and too imperfect to afford an adequate subject index to the great variety of book and non-book materials in the field. Consequently, a list of eight thousand subject headings with their cross-references was developed, covering every facet of the field. It was discovered similarly that there was no authority list of names of persons and corporate bodies adequate for the task. Accordingly, an authority file of forty-five thousand names and cross-references was developed. This was an enormous job of entry investigation, when one considers that the field is theater, where pseudonyms, variations, and changes in company and personal names abound.

The original aim was to keypunch the information in the present files as it was, but it soon became clear that this job was to become only a part of the task and that it would be imperative not only to keypunch separately the list of subject headings and cross-references mentioned above, but also to include the authority file with its cross-references. Furthermore, in order to reap the real fruits of automation, it would be necessary to code each entry and, indeed, to tag every element of the cataloging information so that it would be susceptible to machine retrieval. This conclusion led to the need for the development of a set of specifications for inputting the cataloging information and to a much more highly sophisticated type of computer programming than had been envisaged at the start.

Coding System

Because our attempts at automation preceded those at the Library of Congress, no suitable coding system for input was available at the time; so we had to devise our own, creating a planning-sheet usable for all forms of material and a coding structure likewise suitable for all types of entries. In addition, our system had to be suitable for the conversion of old material as well as the inputting of new entries. The coding system devised is remarkably similar in many aspects to that which the Library of Congress developed later in their MARC project. The Library as a whole has benefited from the Dance Collection's studies and its work on specifications has helped to stimulate the Division of Library Development of the State of New York to establish a Working Committee on a General Purpose Computer Based Catalog System. Actually, our specifications served as a preliminary study for the development of the statewide system, and I have had the experience, curious for the curator of a dance collection, of working on this committee.

How then did the library become involved with the stream of choreographers, performers, critics, librarians, and writers who consult it? That is another story—the story of our origins and beginnings—and will have to be told another time. Ben Shahn has described the function of the artist in terms that are appropriate for the dance specialist or the subject specialist who must arrange, acquire the materials, and mold them to the needs of his field. He says, "The artist must look and look, and think and listen, and be aware. The search is never ending."

L.A. is?

A HOUSE BUILT ON SAND. A city built in a day.

"Two Newarks." "Upper Sandusky West." "Cleveland With Palm Trees."

The seaport of Iowa. The westernmost suburb of Des Moines.

Where Irving Berlin and all those songwriters got their inspirations for all those songs about "Dee-Eye-Ex-Eye-Ee!" and "Suwan-eeeee!"

Where Little Orphan Annie (and Georgie Jessel) never get any older.

Right close to Tijuana.

Where Errol Flynn got drunk. Also acquitted.

Where you have to be a hoofer to run for Senator, and the guy who doesn't get the girl in "Submarine D-1," to run for Governor.

A place nobody writes songs about.

A place full of people from places people write songs about—and glad they're not back in places people write songs about.

A place that gets its baseball teams from Brooklyn, its football team from Cleveland, its hot air for homes from Texas, its water from Colorado and its dirt from the Pacific.

A wonderful place to raise kids, the availability of recreation unmatched—wall-to-wall dirty movies, marijuana, motorcycle cults, Marquis de Sade's personal library on neighborhood bookracks, switchblade knives at discounts.

A place where the only political machine is the county road grader.

A place with no subway, thus culturally depriving a whole generation of rapists, muggers, cutpurses and pickpockets.

A wonderful place if you're an orange, one comedian said, but we've managed to make it pretty uncomfortable even for the oranges.

A collection of freeways in search of a city; the state motto should be "Lane Ends—Merge Left."

More than 7,000,000 people from some place else, all of whom tell you how much better it was back there—when the phone in their Cadillac is not ringing or they're not late for their daily pedicure.

Where it's hard to tell where the amusement parks leave off and the serious parks begin.

A place which in one year opened a magnificent new Music Center, Art Museum, multi-billion dollar freeways and imported a Rembrandt.

A place which showed that the match is mightier than the sword.

Some 462 miles of Slide Area, where, when they dub a real estate development "Rolling Hills" they're not just being poetic.

A place where rivers run underground eleven months a year and down boulevards the other.

Still better than New York, Pittsburgh, Chicago, Boston—America's third strike at constructing a livable metropolis.

A place which makes most Eastern cities look like paintings by Hogarth.

A place where they gave a baseball owner 300 acres of downtown real estate and then didn't even get indignant when he protested paying taxes on it.

A place where even the rats live in palm trees and where people whose parents didn't have bathtubs now have swimming pools themselves.

Better than New York. Better than Paris. What Athens was. What Rome meant to be. What America is all about: My Blue Heaven.

JIM MURRAY

EDITOR'S NOTE: With the kind permission of the magazine *Los Angeles,* we are excerpting sportswriter Jim Murray's view of Los Angeles, published in *Los Angeles* 11:18-20, January 1966.

L  S

Angeles

COME TO Los Angeles by any means, but come. You'll find a very warm welcome here. You can fly to L.A. on a number of airlines, but make your reservations soon, for the city fathers find that traffic congestion at the airport clogs any sort of movement, so they might limit the number of flights in and out of the brand new gismo as a solution to the problem. If you hesitate, you may well wind up landing in Nevada or some other less desirable haven for the conservative!

As your jet glides through the skies over Arizona, it will veer as by magnetic attraction toward a glow, a golden heaven, against the blackness of the Pacific. You are about to enter California from the south, and tiny clusters of lights like the end of a Kerman rug expand and brighten as you traverse the southland: Riverside, Redlands, San Bernadino. You seem to know by electrical sensation that you are approaching Mecca. The scintillant stars multiply by millions and spread as far as the eye can see, limited only by the dark ocean and mountains.

This magic carpet and its jewels of light are truly worth many a king's ransom—and cost even more! Your plane dips, lowers its flaps, and you are suddenly disgorged, and you become yourself a jewel in the light.

Our city covers 455 square miles, exceeded in area only by São Paulo, Brazil. Our growth seems to follow no known pattern, but spreads like glue over the whole landscape, engulfing everything from the great mission in Santa Barbara (whose city fathers insist that all architecture continue in the adobe mission style) to San Diego, the sailors' haven, and the beginning of El Camino Real, the highway made by the padres in their march north to Yerba Buena, which was later to be known as San Francisco, the "grey city on the bay."

The mountains to the east and the ocean's lazy lapping at our shores mark our boundaries as no national limits could improve. We grew careless with roads, lanes, rancherios, and railroads in random juxaposition, until oil wells, orange groves, vineyards, and communities intervolved. Then came the freeways to bisect, trisect, enervate, or regenerate our complaisant world with parabolas and other puzzling geometric curves, that since 1940 have become our bloodlines, feeding our open-mawed villages with the wares of the world. Only the insurpassable mountains of Santa Monica, San Gabriel, San Jacinto and San Gorgonio stopped the advance of the ineradicable concrete ribbons.

Riding on these giant arteries, miles of which are elevated above the city, you can see broad vistas of Los Angeles against the backdrop of mountains which rise to 9,000 feet in the distance. Straight rows of tall palms remind us of leisurely Spanish rancheros of old.

Off to the south, forests of oil well riggings symbolize the wealth of our natural resources. Tall thin monoliths, like dominoes, have recently obtruded to disturb the even skyline that we had come to call our own. New York has looked at us and liked us, but must change us naturally to its own towering image. The Union Bank Building, Occidental Tower, Century City, Kirkeby Tower, and many more giants have been constructed since building height limits were relaxed, and as engineering skills triumphed over the danger from earthquakes. Try to plan to have one dinner in the sky-room of one of these towers, especially if you missed the arrival by air or a night ride in a helicopter. The spectacular sea of lights will help you to understand the great extent of Los Angeles.

This city has doubled its population every twenty years and has grown six times as fast as the United States as a whole. The average population increase of 385,000 a year during the past three and one half years can be expressed as an average net gain of more than 7,000 people each week.[1] Stop and think what problems this creates in requirements for schools, churches, libraries, fire departments, police stations, playgrounds, garbage collection, water, gas, electricity and telephones. We often wish that the All-Year Club and the Chamber of Commerce would stop extolling our assets and instead dwell a little more on the evil of our smog, the congestion of our freeways, and the problems of assimilating our cosmopolitan population. They might mention our earthquakes, riots, floods and brush fires. Perhaps this would slow the tide of people.

You may wonder how we acquired our name—City of the Angels. We take our name from the Los Angeles river which in turn was named by one of the first Spanish explorers. "The expedition of Gaspar de Portola, seeking the port of Monterey, camped on the east bank of the river on August 2, 1769, near the site of an Indian *ranchería* known as Yang-na, and named the river *Nuestra Señora de la Reina de los Angeles de Porciúncula* or *Our Lady, Queen of the Angeles of Porciúncula.* The previous day, August 1, had been the jubilee day of the Lady, and it was in the church dedicated to the Lady, in Porciúncula, in Italy, that St. Francis is said to have gained his jubilee, or a year of remission from the penal consequences of sin."[2]

The founding of the city is assumed to have occurred on September 4, 1781. On this date eleven weary Mexican families from Sonora are said to have arrived at a camp site near the present plaza and to have been assigned house and farm lots laid out by Governor Felipe de Neve. This was the beginning of the Pueblo de Los Angeles, only a few years after the first missions were founded. Eventually a chain of twenty-one missions was established from San Diego to Sonoma. Father Junipero Serra served as head of the missionaries and was a powerful leader and a fervidly religious man. From this small beginning we have grown in less than two hundred years.

What were the magnets that drew and still draw people to the City of the Angels? The Gold Rush that followed the discovery of gold in the North (1848) brought the first tide of people and wealth to Los Angeles—not directly, but through the general increase in prosperity and the demand for beef from our ranches. Some of the disillusioned seekers of gold also found their way to Southern California and Los Angeles. This was a roistering boom period, but it ended in 1857 when the flush days in the mines were over. The demand for beef dropped suddenly and a general drought added to the disaster.[3]

Typical of the history of Los Angeles, this bust was again followed by a new boom, a result of the coming of the railroads and the rate war between the Santa Fe Railroad and the Southern Pacific. At the height of this war, round trip tickets from the Missouri River to California were sold for $1.00. Land was feverishly subdivided and quickly sold to the hordes of immigrants. Many of our surrounding towns were founded in the land boom of the 1880's, and all survived the crash that followed.[3]

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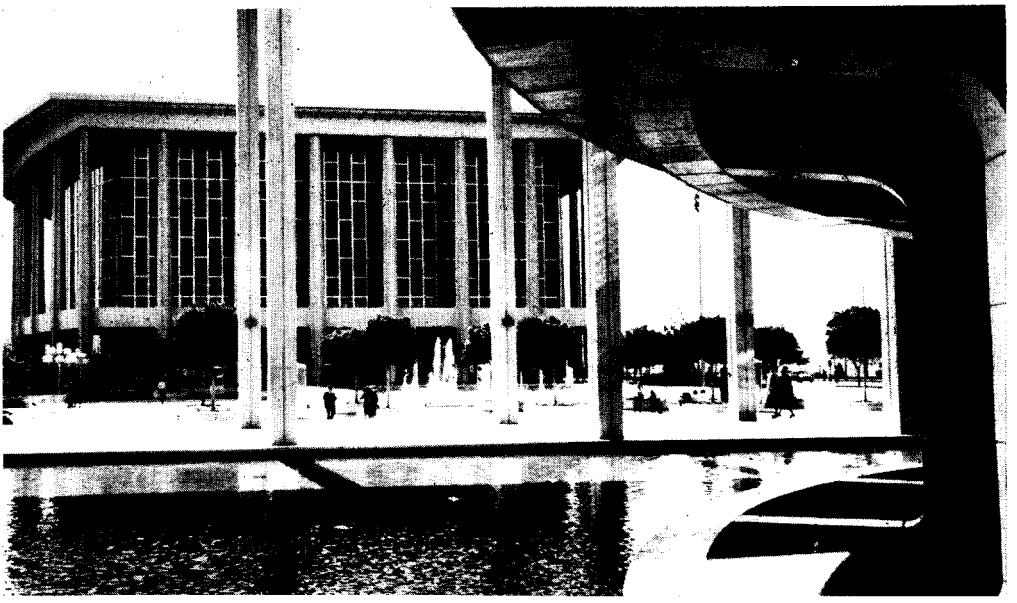
[1] Jamison, C. C. "It wasn't Supposed to Happen—But It Did." *Los Angeles* 11:18-20, January 1966.
[2] Hanna, Phil. *The Dictionary of California Land Names.* Los Angeles: Automobile Club of Southern California, 1951. rev. ed.
[3] Robinson, W. W. *Panorama: A Picture History of Southern California.* Los Angeles: Title Insurance and Trust Co., 1953. Printed by Anderson and Ritchie.



Los Angeles Music Center

Other booms were based on the citrus industry, grapes and wine and walnuts, and the climate itself brought more and more people. Movie making, year-round outdoor operation of industrial plants, the discovery of oil—each played a role in initiating new waves of prosperity and tides of immigrants.[3]

These are a few highlights of our history and we hope that thinking of them will make your stay with us more enjoyable. You are not going to be here long enough to see all of the sights in this far-flung area, but we hope you will take time to see a little of our mountains and beaches and desert before you leave. We have planned the Conference so that all of you will see our new Music Center at the champagne-buffet reception on Sunday night (June 2). You will have a chance to taste the pleasures of a Mexican fiesta at the banquet the following Thursday. But much remains for you to explore on your own. A trip to Catalina Island will let you take a glimpse at the harbor; see surfers, scuba divers, and flying fish in the clear water off the island. You may be surprised to see the myriads of yachts and motor boats in our marinas. If you were here in the winter, you would be more surprised to see cars laden with skis, speeding through the orange blossoms on their way to the snow at Arrowhead, Big Bear, Big Pines and the High Sierras. If you go to the post-Conference seminar at Arrowhead, you won't find snow in June, but you will enjoy the lake and the clear sharp mountain air. If you would like to see the Mojave desert, you might arrange to drive back to Los Angeles from Arrowhead via the desert.

There are many other strange and beautiful sights to be seen here—all part of the great magic carpet you will see as you arrive. There are hippies on Sunset Boulevard, "think factories" more elegant than country clubs, skeletons of prehistoric animals from our own tar pits, Disneyland, Marineland, a miniature Oxford at Claremont, supermarkets, sanitariums and rest homes! Come and see for yourself. Welcome to Los Angeles!

ELIZABETH S. ACKER
Conference Publicity Chairman

EDITOR'S NOTE: Mrs. Acker is Assistant Librarian, Los Angeles County Medical Association Library.

A LOS ANGELES BIBLIOGRAPHY

CHAPMAN, JOHN L. **Incredible Los Angeles.** New York: Harper & Row, 1967. 271p.

The author settled in Los Angeles in 1961 but has not been an insider so long that he has forgotten what the city looked like from the outside. He has tried to capture the mainstreams of life here as they exist today and to illustrate them with vignettes from the lives of real people. He gives a comprehensive contemporary view of Los Angeles from the human side including discussions of the Bel Air fire, Hell's Angels, the Dodger Stadium and other facets of recent news as seen through the eyes of observers.

CUNNINGHAM, GLENN, ed. **Day tours: geographical journeys in the Los Angeles area.** Palo Alto, California: Pacific Books, 1964.

Each chapter describes a trip which can be made by automobile in one day from the city center, including the route and suggested stops at points of interest. The jaunts are described by people who know the areas intimately and are illustrated with photographs and maps. This is a publication of the Los Angeles Geographical Society designed for both the layman and the professional geographer. Although the emphasis is on physical and cultural geography, the famous sights of the Southland are not ignored. A good general bibliography on Los Angeles is included as well as a useful index.

FULTZ, FRANCIS MARION. **The elfin forest of California.** Los Angeles: Times-Mirror Press, 1923. 267p.

If you look at our dull green chaparral covered hills and feel sorry for Southern Californians you should read this to see what we love about those scrubby brown hills—the softness of California lilac and gnarled oaks and sumac.

HANNA, PHIL TOWNSEND. **Libros Californianos, or five feet of California books.** Los Angeles: Jake Zeitlin, Primavera Press, 1931; rev. enl. ed. by Lawrence Clark Powell. Los Angeles: Zeitlin and Ver Brugge, 1958.

The first edition contains separate lists of the twenty rarest and most important books dealing with the history of California by three authorities: Leslie E. Bliss of the Huntington Library, Robert E. Cowan, California bibliographer and Henry R. Wagner, collector and cartographer. The revised edition also includes lists by Glen Dawson and Warren Howell, antiquarian book dealers, and a final list by Lawrence Clark Powell covering the period 1932-1957. The heart of both editions is Phil Hanna's discerning comment. From 1927 to 1957, the year of his death, Phil Hanna edited with brilliance *Westways*, the monthly magazine of the Automobile Club of Southern California.

HANNA, PHIL TOWNSEND. **The Dictionary of California land names.** rev. ed. Los Angeles: Automobile Club of Southern California, 1951.

The historical origins of place names are traced and brief comments on each place are added. The result is a miniature guide to California.

LILLARD, RICHARD G. **Eden in jeopardy, man's prodigal meddling with his environment: the Southern California experience.** New York: Knopf, 1966. 329p.

The shaping of the environment with the aid of bull-dozer and the automobile is seen as an enormous meddling which jeopardizes the natural beauty of the region and calls for stringent planning. A great deal of research in primary sources has gone into this book substantiated by a bibliography which would provide months of reading material on the physical and cultural development of Southern California.

MURPHY, BILL. **The Dolphin guide to Los Angeles and Southern California.** Garden City, New York: Doubleday, 1962.

A good comprehensive guide, used at the Los Angeles Public Library for quick reference. Unfortunately, it is beginning to be out-of-date, especially for information on restaurants.

NADEAU, REMI A. **City makers.** Garden City, New York: Doubleday, 1950. 309p.

The story of men and circumstances contributing to the building of Los Angeles by a prominent author on California history.

RAND, CHRISTOPHER. **Los Angeles, the ultimate city.** New York: Oxford Univ. Press, 1967. 205p.

The material of this book originally appeared as a series of articles in the *New Yorker*. There are chapters on the physical, mechanical, occupational, racial, cul-

tural and political aspects of Los Angeles. It provides entertaining, well researched background material for an understanding of the city, including a vivid description of the story of the aerospace industry.

ROBINSON, W. W. **Los Angeles: a profile.** Norman, Oklahoma: University of Oklahoma Press, 1968. 160p.
To be published in April, this volume promises to be an inspiring up-to-date discussion by an outstanding historian of Southern California who has written more than a dozen books on the region. Subjects of current interest such as the Watts riots and the battle against smog will be included as well as an overview of historical development and fundamental problems such as water supply and harbor construction.

ROBINSON, W. W. **Panorama, a picture history of Southern California.** Los Angeles, Title Insurance & Trust Co., 1953.
A beautifully illustrated outline history covering the Spanish period to the present. Photographs of "then" and "now" show dramatically the rapid growth of Southern California.

ROTH, BEULAH. **Los Angeles: an unusual guide to unusual shopping.** Los Angeles: Price, Stern & Sloan, 1967.
An inexpensive book to help you spend your conference allowance.

ZAMORANO CLUB. **A bookman's view of Los Angeles.** Los Angeles: Zamorano Club, 1961. 107p.
Highly recommended, but hard to obtain, is this joint effort of prominent members of the Los Angeles book world, the Zamorano Club. The club takes its name from California's first printer, Don Agustin V. Zamorano. *A Bookman's View* was published in a small edition by the Zamoranans as a keepsake for members of the Grolier Club on the occasion of its visit to Los Angeles in the spring of 1961. The printing was done by Zamorano member printers: Saul Marks (Plantin Press), Gordon Holmquist (Cole-Holmquist Press), Ward Ritchie (Ward Ritchie Press), and Grant Dahlstrom (Castle Press). The book opens with a "Profile of Los Angeles" by W. W. Robinson and contains short chapters on four specialized libraries—the Clark, the Honnold, the Huntington, and the Southwest Museum. Fittingly, in the longest chapter in the book, Ward Ritchie tells the story of fine printing in Los Angeles.

Two magazines which tell the story of Los Angeles, both past and present, should be mentioned: **Westways** and **Los Angeles.** Both feature many articles by well-known southlanders. **Los Angeles,** published and edited by David R. Brown, is available on newsstands. **Westways,** published by the Automobile Club of Southern California, 2601 S. Figueroa, can be bought at the club or obtained by subscription for $2.00 a year.

If you thirst for more, drop in to the Mary E. Foy California Room in the History Department of the Central Library of the Los Angeles Public Library. The collection is particularly strong in material dealing with Los Angeles. Complete files of journals on local history are available as well as a selection of early pictures and biographical material on many California pioneers. Following is a selection of books with annotations from **California Heritage,** a booklist prepared by the History Department in 1967. It serves as a guide to the vast treasures in the Los Angeles Public Library that are classified as Californiana.

CALIFORNIA READINGS

BERGER, JOHN A. **The Franciscan missions of California.** New York: Putnam, 1941.
The best book on the California missions since George Wharton James' classic work.

CAUGHEY, JOHN W. **California.** 2nd ed. New York: Prentice-Hall, 1953.
An outstanding, well-rounded history of California.

HANNA, PHIL TOWNSEND. **California through four centuries.** New York: Farrar and Rinehart, 1935.
A unique, readable chronology of memorable dates in California history, with an excellent index.

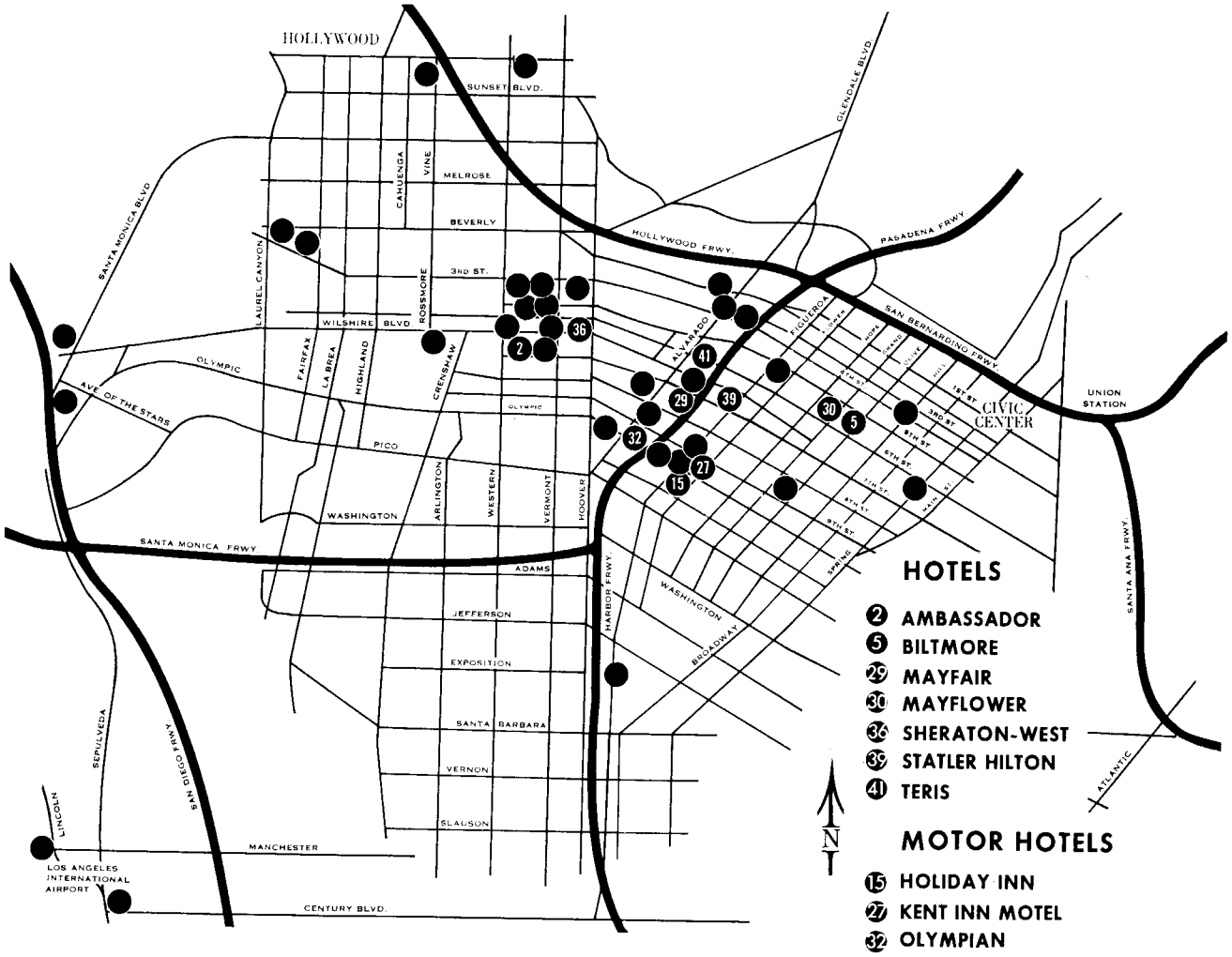
JAMES, GEORGE WHARTON. **In and out of the old missions of California.** Boston: Little-Brown, 1911.
An historical and pictorial account of the Franciscan missions; detailed and readable.

ROLLE, ANDREW F. **California, a history.** il. New York: Crowell, 1963.
A reliable standard text.

Note: We are indebted to Miss Mary Helen Peterson, Head of the History Department at the Los Angeles Public Library and her staff for generous assistance with this list.

HOTELS IN THE VICINITY OF THE CONFERENCE HOTEL WHERE SPACE HAS BEEN RESERVED FOR YOUR CONVENIENCE

DISTANCE FROM HEADQUARTERS	KEY	HOTELS	RATES
2.5 miles	2	AMBASSADOR 3400 Wilshire Blvd.	(Single) $13.00 to $19.00; (Double, Twin) $18.00 to $24.00
0.4 miles (4 blocks)	5	BILTMORE 515 S. Olive	(Single) $12.50 to $19.50; (Double, Twin) $17.50 to $24.50
0.4 miles (4 blocks)	29	MAYFAIR 1256 W. 7th St.	(Single) $6.00; (Double) $7.00; (Twin) $8.00
0.4 miles (4 blocks)	30	MAYFLOWER 535 S. Grand	(Single) $10.50 to $14.50; (Double) $14.50 to $19.50; (Twin) $15.50 to $19.50
1.2 miles	36	SHERATON-WEST 2961 Wilshire Blvd.	(Single) $13.00; (Twin) $17.00
Conference Headquarters	39	STATLER HILTON 930 Wilshire Blvd.	(Single) $13.00 to $17.50; (Double, Twin) $17.00 to $21.50
0.7 miles (6 blocks)	41	TERIS 1254 W. 6th St.	(Single) $6.00; (Double) $7.00; (Twin) $8.00
		MOTOR HOTELS	
0.4 miles (4 blocks)	15	HOLIDAY INN 1020 S. Figueroa	(Single) $12.00 to $13.00; (Double) $17.00; (Twin) $18.00
0.3 miles (3 blocks)	27	KENT INN MOTEL 920 S. Figueroa	(Single) $10.00; (Double) $12.00; (Twin) $14.00
2.1 miles	32	OLYMPIAN MOTOR HOTEL 1903 W. Olympic	(Single) $9.00 to $13.00; (Double) $12.00 to $17.00


HOLLYWOOD
SUNSET BLVD.
MELROSE
BEVERLY
3RD ST.
WILSHIRE BLVD
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WASHINGTON
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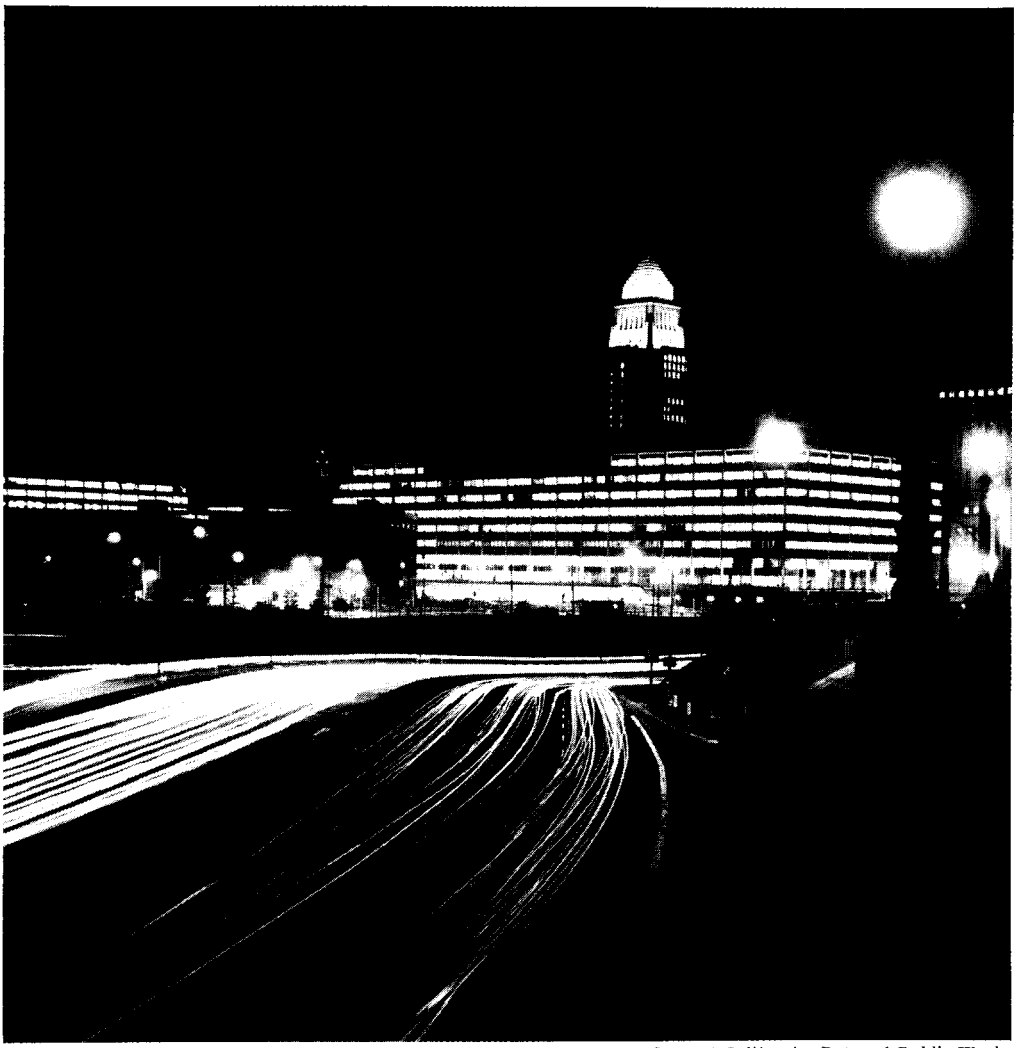
JEFFERSON
EXPOSITION
SANTA BARBARA
VERNON
SLAUSON
MANCHESTER
CENTURY BLVD.
SANTA MONICA BLVD
AVE. OF THE STARS
LAUREL CANYON
CAHUENGA
VINE
ROSSMORE
FAIRFAX
LA BREA
HIGHLAND
CRENSHAW
ARLINGTON
WESTERN
VERMONT
HOOVER
SANTA MONICA FRWY.
HOLLYWOOD FRWY.
PASADENA FRWY.
SAN BERNARDINO FRWY.
HARBOR FRWY.
SANTA ANA FRWY.
SAN DIEGO FRWY.
GLENDALE BLVD.
ALVARADO
FIGUEROA
BROADWAY
SPRING
MAIN
CIVIC CENTER
UNION STATION
ATLANTIC
SEPULVEDA
LINCOLN
LOS ANGELES INTERNATIONAL AIRPORT
N
HOTELS
2 AMBASSADOR
5 BILTMORE
29 MAYFAIR
30 MAYFLOWER
36 SHERATON-WEST
39 STATLER HILTON
41 TERIS
MOTOR HOTELS
15 HOLIDAY INN
27 KENT INN MOTEL
32 OLYMPIAN

59th SLA Conference Program



State of California, Dept. of Public Works

Santa Ana Freeway by Night

June 2-7, 1968

Statler Hilton Hotel, Los Angeles, California

Theme: *Special Libraries: Partners in Research in Tomorrow's World*

Saturday, June 1

BOARD OF DIRECTORS MEETING: 9:00 A.M.-5:00 P.M.

Registration: 1:00-9:00 P.M.

SCIENCE-TECHNOLOGY DIVISION
Executive Board Meeting: 2:00 P.M.

Sunday, June 2

MORNING

Registration: 8:00 A.M.-7:00 P.M.

BOARD OF DIRECTORS MEETING: 10:00 A.M.-noon

ADVERTISING AND MARKETING DIVISION: Executive Board Meeting, noon

BIOLOGICAL SCIENCES DIVISION: Executive Board Meeting, 10:00 A.M.—noon

PUBLISHING DIVISION: Open House, 10:00 A.M.-midnight

SCIENCE-TECHNOLOGY DIVISION: Advisory Committee Meeting, 10:00 A.M.—noon

AFTERNOON

EDUCATION COMMITTEE: Open Meeting, "Planning Session—Continuing Education," 1:00-4:00 P.M.

Incoming Chapter Officers and Bulletin Editors Meeting: 1:30-4:30 P.M.

Incoming Division Officers and Bulletin Editors Meeting: 1:30-4:30 P.M.

Opening of Exhibits: 2:00 P.M.

First Conference Attendees Reception: 3:00-4:30 P.M.
Round tables on reference, cataloging, mechanization, acquisitions, binding, etc.
Group leaders:
Grieg Aspnes, Cargill, Minneapolis (Reference)
Marjorie Griffin, IBM, Los Gatos (Mechanization)
Melvin Kavin, Kater-Crafts, Pico Rivera (Binding)
Johanna E. Tallman, Coordinator, Physical Sciences Libraries, University of California, Los Angeles (Cataloging)
Others to be announced

Opening Champagne Reception and Buffet Supper: 5:00-7:30 P.M., Music Center Foyer (Scholarship Benefit)

EVENING

First General Session: 7:30-9:15 P.M. Music Center Pavilion
Presiding: Mrs. Elizabeth R. Usher, President, Special Libraries Association; Chief, Art Reference Library, The Metropolitan Museum of Art
Invocation: Reverend Arnold F. Buja, S.D.B.
Welcome from the City of Los Angeles
Welcome from the Southern California Chapter President, Elizabeth M. Walkey, Manager, Library Services, Bell & Howell Research Laboratories
Introduction of Conference Committee: Conference Chairman John M. Connor, Library, Los Angeles County Medical Association

Summary of Exhibits: Exhibits Committee Chairman William L. Emerson, District Librarian, Palos Verdes Library District

KEYNOTE ADDRESS: William H. Pickering, Ph.D., Director, Jet Propulsion Laboratory, Pasadena

DIVISION OPEN HOUSES: 10:00-12:00 P.M.

Advertising & Marketing, Aerospace, Biological Sciences, Business & Finance, Insurance, Museum, Newspaper, Picture, Publishing, Social Science, Transportation

PETROLEUM DIVISION: Executive Board Meeting, 10:00 P.M.

Monday, June 3

BREAKFAST

DOCUMENTATION DIVISION: Breakfast and Business Meeting, 7:30-9:00 A.M.

GEOGRAPHY AND MAP DIVISION: Dutch Treat Breakfast and Planning Meeting, 7:30-9:00 A.M. (Executive Committee and Committee Chairmen)

NUCLEAR SCIENCE DIVISION: Breakfast and Executive Board Meeting, 7:30-9:00 A.M.

PICTURE DIVISION: "Swap Shop" and Continental Breakfast, 8:00-9:15 A.M.

SCIENCE-TECHNOLOGY DIVISION

PAPER AND TEXTILE SECTION: Breakfast and Business Meeting, 7:30-9:00 A.M.

PUBLIC UTILITIES SECTION: Breakfast and Business Meeting, 7:30-9:00 A.M.

MORNING

Second General Session: 9:15-11:15 A.M., Technical Papers (sessions to run concurrently)

I. "Challenges for Tomorrow's Special Librarian" Presiding: Cecily J. Surace, Conference Program Committee, The RAND Corporation, Santa Monica, California

Tefko Saracevic, Center for Documentation and Communication Research, Case Western Reserve University: "The Impact of Information Sciences on the Practice of Librarianship" (co-author, Alan Rees) (See Abstract No. 1)

Wesley Simonton, Ph.D., Director, ERIC Clearinghouse for Library and Information Sciences, University of Minnesota: "Implications for Librarians of the ERIC Clearinghouse for Library and Information Sciences"

To be announced: "Task Force on Automation and other Cooperative Services" (Library of Congress, Department of Agriculture and National Library of Medicine)

Audrey N. Grosch, Systems Coordinator, Bio-Medical Library, University of Minnesota: "The Corporate Information Center in an On-Line Systems Environment" (See Abstract No. 2)

II. "Challenges from Tomorrow's User" Presiding: (To be announced) Speaker from Washington University, School of Medicine Library, St. Louis: "Pros and Cons of Book Catalogs" (See Abstract No. 3)

Jack King, Head, Technical Services, Hamline University, St. Paul, Minnesota: "Implications for Special Libraries of Changing Undergraduate Studies" (See Abstract No. 4)

Carlos A. Cuadra, Ph.D., Head, Information Systems Technology Staff, Research and Technology Division, System Development Corporation, Santa Monica, California: "The Implications of Relevance Research for Library Operations and Training" (See Abstract No. 5)

Norman J. Crum, Technical Information Specialist, Technical Information Center, General Electric TEMPO, Santa Barbara, California: "Dynamics of the Interrelationship between Customer and Special Librarian" (See Abstract No. 6)

III. "Challenges from Tomorrow's Management" Presiding: Shirli O. Jones, Conference Program Committee, Douglas Aircraft Company, Santa Monica, California

Robert L. Patrick, Computer Specialist, Consultant to The RAND Corporation: "Pitfalls in an Automated World" (See Abstract No. 7)

Richard C. Raymond, Ph.D., Consultant, Information, General Electric, New York City: "Industrial Management and Libraries" (See Abstract No. 20)

Robert A. Miner, Videofile Product Manager, Ampex Corporation, Redwood City, California: "The Automation Challenge to Tomorrow's Management" (See Abstract No. 8)

George W. Robbins, Associate Dean, Graduate School of Business Administration, University of California at Los Angeles: "Educating Tomorrow's Management"

LUNCHEON

ADVERTISING AND MARKETING DIVISION: Luncheon and Business Meeting, 11:45-2:15 P.M.

AEROSPACE DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

BIOLOGICAL SCIENCES DIVISION: Luncheon Meeting, 11:45-1:30 P.M.

Robert L. Metcalf, Ph.D.: "Challenges of Applied Biology"

Annual Business Meeting: 1:30-2:30 P.M.

CHEMISTRY DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

ENGINEERING DIVISION: Luncheon Meeting, 11:45-2:30 P.M.

William E. Burgess, Technical Information Center, Systems Department, Autonetics Division, North American Rockwell Corporation: "National Information Systems"

GEOGRAPHY AND MAP DIVISION: Luncheon Meeting, 11:45-1:45 P.M.

Lawrence I. Moss, Power Engineer and Member, Sierra Club: "Water and Power in a Livable World—Some Geography of Conservation"

INSURANCE DIVISION: Luncheon and Business Meeting, 11:45-1:45 P.M.

METALS/MATERIALS DIVISION: Luncheon and Business Meeting, 11:45-2:15 P.M.

MILITARY LIBRARIANS DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

MUSEUM DIVISION: Luncheon and Business Meeting, 11:45-1:15 P.M.

NEWSPAPER DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

PETROLEUM DIVISION: Business Meeting, 12:45-2:15 P.M.

PHARMACEUTICAL DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

PICTURE DIVISION: Luncheon and Business Meeting, 11:45-1:15 P.M.

PUBLISHING DIVISION: Luncheon and Business Meeting, Dawson's Book Shop, 11:45-2:30 P.M.

SCIENCE-TECHNOLOGY DIVISION: Luncheon and Business Meeting, 11:45-2:30 P.M.

AFTERNOON

ADVERTISING AND MARKETING DIVISION: Tour, 3:00-4:45 P.M.

Advertising and Marketing Research Library (to be announced)

BUSINESS AND FINANCE DIVISION: Business Meeting, 2:00-4:00 P.M.

DOCUMENTATION AND SOCIAL SCIENCE DIVISIONS: Joint Meeting, 3:00-5:00 P.M.

"Mechanized Information Systems in Educational Areas"

Presiding: Herbert Holzbauer, Chairman, Documentation Division, Special Libraries Association

Harvey Marron, Chief, Educational Research Information Centers Clearinghouse, U.S. Office of Education, Washington, D. C.: "ERIC—A Nationwide Network to Disseminate Educational Information" (See Abstract No. 19)

Robert M. Gordon, Director of Computer Facilities & Information Services, University of California, Irvine: "Computers, Innovation and Education" (See Abstract No. 18)

Jack E. Bratten, Education and Training Staff, Technology Directorate, Research and Technology Division, System Development Corporation, Santa Monica

GEOGRAPHY AND MAP DIVISION: Business Meeting, 2:00-3:00 P.M.
Discussion Meeting, 3:00-4:30 P.M.
"Problems of the Small Map Library"
Discussion Leader: Elinor C. Kelly, Geography and Map Librarian, University of Washington, Seattle

INSURANCE DIVISION: Tour, Aerospace Corporation Library, El Segundo, California, 2:30-4:30 P.M.
Reception, Occidental Life Insurance Company of California, 5:00-6:30 P.M.

METALS/MATERIALS DIVISION: Panel, 2:30-5:00 P.M.
"Outside Information Services: User/Supplier Dialogue"
(A user and a representative of each of the services below to be announced)
Chemical Abstracts Service, Polymer Science and Technology (Post)
Institute for Scientific Information, Automatic Subject Citation Alert (ASCA)
University of Southern California, Western Research Application Center (WESRAC)

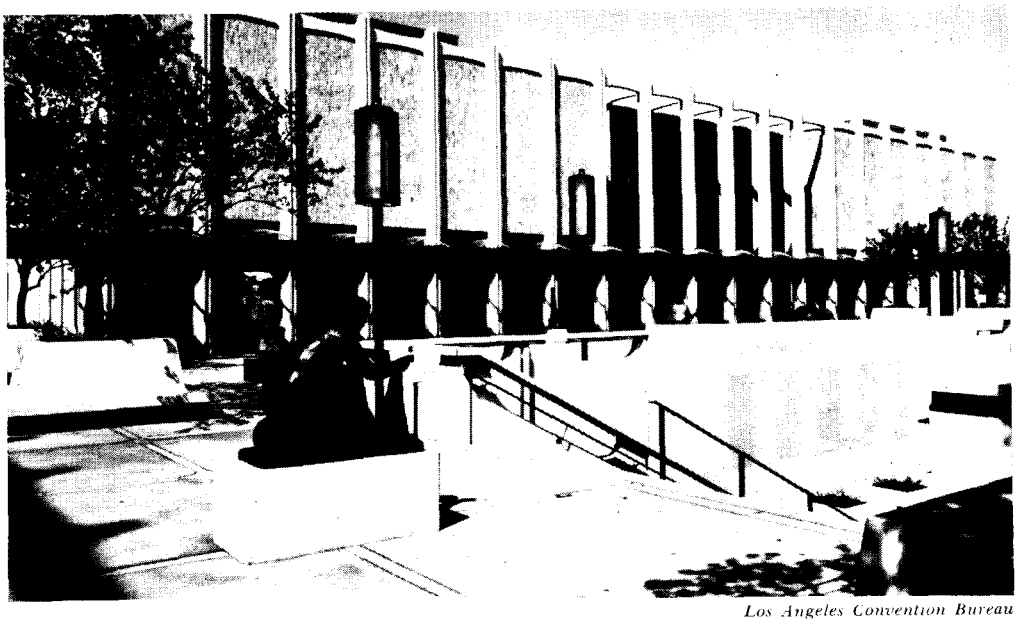
MILITARY LIBRARIANS DIVISION: Program Meeting, 3:00-4:30 P.M.
Peter Paret, Professor of History, University of California, Davis: "Military History for Tomorrow's Libraries"
Alfred F. Hurley, Colonel, USAF, Professor and Head of Department of History, U.S. Air Force Academy, Colorado: "Military History Symposium"

MUSEUM AND PICTURE DIVISIONS: Joint Tour and Reception, 1:30-7:00 P.M.
Edward L. Doheny Memorial Library, St. John's College, Camarillo; Guide: Louise Miller, Curator

NEWSPAPER DIVISION: Program Meeting, "Microfilm Information Retrieval and Storage Systems", 3:00-5:00 P.M.
Alfred S. Tauber, Manager, Product Planning, Houston Fearless Corporation, Los Angeles: "C.A.R.D. System"
Jack Ver Hultz, Program Manager, Fairchild-Hiller, Farmingdale, New York: "Micro-Vue System"

NUCLEAR SCIENCE DIVISION: Business Meeting, 1:00-2:45 P.M.

PETROLEUM DIVISION: Forum, 2:30-5:30 P.M.
Moderator: Aphrodite Mamoulides, Librarian, Shell Development Company, Houston
Staff and Facilities
Edythe Moore, Manager, Library Services, Aerospace Corporation, Los Angeles: "Activity Analysis, The Systems Approach"
Processing
Franklin S. Varenchik, Capitol Industries, Inc., Hollywood: "A Computerized System for Periodical Subscription Control" (See Abstract No. 21)
Richard Weisbrod, Systems Analyst, Atlantic-Richfield Company, Los Angeles: "The Application of a General Purpose Management Information System to Interactive Library Retrieval"
Ray R. Dickison, Chief Librarian, Oak Ridge National Laboratory: "Microfilm in Special Libraries" (See Abstract No. 14)
Information Services
Donald P. Helander, Director, Petroleum Abstracts and Retrieval Service, University of Tulsa and Everett H. Brenner, Manager, Central Abstracting and Indexing Service, American Petroleum Institute: "Information Processing to Facilitate the Retrieval of Petroleum Industry Technical Literature and Patents" (See Abstract No. 17)
Carlton M. Clifford, Supervisor, Technical Information Center, Chevron Research



Los Angeles Convention Bureau

Los Angeles County Museum of Art

Corporation, La Habra, California: "Special Subject Processing—Geophysical Formation Evaluation"

(Evening round tables for small and large libraries to be arranged during the Forum by Evan Christensen)

PICTURE DIVISION *see* Museum Division above

SOCIAL SCIENCE DIVISION *see* Documentation Division above

TRANSPORTATION DIVISION: Business Meeting, 2:00-4:00 P.M.

PLANNING COMMITTEE: Program Meeting, "Long-Range Plans for the Association", 3:00-5:00 P.M.

PUBLICATIONS PROGRAM COMMITTEE: Open Meeting, "Publications Problems", 3:00-5:00 P.M.

PUBLISHER RELATIONS COMMITTEE: Panel Discussion, "Publishers and Librarians: Improving Our Communication Channels", 4:30-5:30 P.M.

Moderator: John Berry III, Book Editorial Department, R. R. Bowker Company, New York City

Mary McNierney, Public Relations Staff, General Motors Corporation, New York City

Gordon Randall, Thomas J. Watson Research Center, IBM Corporation, Yorktown Heights, New York

Two publishers' representatives to be announced

SLA CONSULTATION SERVICE COMMITTEE: Open Meeting, "Circle of Communication" (roundtable discussion of consultants' problems), 3:30-5:00 P.M.

Presiding: Gloria Evans, Librarian, Production & Engineering Division, Parke-Davis, Detroit, Michigan

TRANSLATIONS ACTIVITIES COMMITTEE: Program Meeting, "Status Report on Translations Activities", 3:00-5:00 P.M.

EVENING

PAST ASSOCIATION PRESIDENTS: Dinner, 5:30-8:00 P.M.

ADVERTISING AND MARKETING DIVISION: Cocktails and Dinner with Speaker, 6:00-8:00 P.M. (Limited to Division Members)

PETROLEUM DIVISION: Round Table Discussions, 6:00-8:00 P.M. (by arrangement)

Coordinator: Elizabeth Roth, Chief Librarian, Standard Oil Company of California, San Francisco, California

Staff and Facilities

Chairman: Catherine Bragg, Librarian, Signal Oil and Gas Company

Processing

Chairman: Carleton M. Clifford, Supervisor, Technical Information Center, Chevron Research Corporation, La Habra, California

Information Services

Chairman: Barbara Orosz, Head Librarian, Research Department, Union Oil Company, Brea, California

Advisory Council Meeting: 8:15-10:00 P.M.

DIVISION OPEN HOUSES: 10:00-12:00 P.M.

Business & Finance, Museum, Newspaper

Tuesday, June 4

BREAKFAST

METALS/MATERIALS DIVISION: Outgoing Executive Board and Committee Chairmen Meeting, 7:30-9:00 A.M. (Continental Breakfast)

MORNING

Annual Meeting: 9:00-11:30 A.M.

Presiding: Mrs. Elizabeth R. Usher, President

LUNCHEON

ADVERTISING AND MARKETING DIVISION: Luncheon Meeting, "A & M's 40th Birthday", 12:00-2:00 P.M.

AEROSPACE, CHEMISTRY, DOCUMENTATION AND PETROLEUM DIVISIONS: Joint Luncheon, 12:00-2:00 P.M.

Ray L. Stanish, Lecturer: "Giant Nincompoops" (Humorous and informative talk on computers)

CHEMISTRY DIVISION *see* Aerospace Division above

DOCUMENTATION DIVISION *see* Aerospace Division above

INSURANCE DIVISION: Luncheon Meeting, 12:00-2:00 P.M.

Alden F. Jacobs, Secretary-Treasurer, Life Office Management Association, New York City: "Library Operations—Center of Communications"

NEWSPAPER DIVISION: Luncheon Meeting, 12:00-2:00 P.M.

Leonard Riblett, Assistant Managing Editor, Los Angeles Times

NUCLEAR SCIENCE DIVISION: Luncheon Meeting, "The Evaluation of the Universal Decimal Classification as a Mechanized Retrieval System for Nuclear Science Literature", 12:00-2:00 P.M.

Pauline Atherton, Associate Professor, Syracuse University, Syracuse, New York

Robert Freeman, Center for Applied Linguistics, Washington, D. C.

PETROLEUM DIVISION *see* Aerospace Division above

SCIENCE-TECHNOLOGY DIVISION

PAPER AND TEXTILE SECTION: Luncheon Meeting, 12:00-2:00 P.M.

Charles Nelson, Nelson Associates

SOCIAL SCIENCE DIVISION: Luncheon and Business Meeting, 12:00-2:00 P.M.

AFTERNOON

ADVERTISING AND MARKETING DIVISION: Bull Session, 2:30-5:00 P.M.
Moderator: Elizabeth L. Smith, Librarian, Campbell-Ewald, Detroit, Michigan

AEROSPACE, BUSINESS AND FINANCE, CHEMISTRY, DOCUMENTATION, MILITARY LIBRARIANS, NUCLEAR SCIENCE AND PETROLEUM DIVISIONS: Joint Meeting, "User Experiences with Magnetic Tape Services", 2:30-5:00 P.M.
Moderator: Irving M. Klempner, Ph.D. Associate Professor, School of Library Science, State University of New York, Albany

I. "Breaking the Information Barrier Within a Company": American Petroleum Institute tapes, University of Tulsa tapes, and Information for Industry uniterm magnetic tapes of U.S. chemical and chemically-related patents, 1950 through 1967
Inge Loncaric, Atlantic-Richfield Oil Company, Dallas, Texas
Hester Dale, Atlantic-Richfield Oil Company, Wilmington, California
Anthony J. Costanzo, Arco Chemical Corporation, Division of Atlantic-Richfield, Glenolden, Pennsylvania (See Abstract No. 13)

II. "Project MARC—Potential of, and Experiences with, Library of Congress Machine-Readable Cataloging"
Hillis L. Griffin, Argonne National Laboratory, Argonne, Illinois

III. AEC tapes
Gloria L. Smith, Lawrence Radiation Laboratory, Berkeley, California

IV. DDC and NASA tapes
Judith L. Corin, Rocketdyne, Division of North American Rockwell, Canoga Park, California

V. Chemical Abstracts Services tapes
C. M. Bowman, Ph.D., Dow Chemical Company, Midland, Michigan

BUSINESS AND FINANCE DIVISION *see* Aerospace Division above

CHEMISTRY DIVISION *see* Aerospace Division above

DOCUMENTATION DIVISION *see* Aerospace Division above

ENGINEERING DIVISION: Program Meeting, "Information Transfer: Programs and Evaluation", 2:00-4:00 P.M.
Russell Shank, Smithsonian Institution: "Overview and Evaluation"
Speaker to be announced: "NASA Technology Utilization Program"
Speaker to be announced: "State Technical Services Act Programs"

GEOGRAPHY AND MAP DIVISION: Panel Discussion, "The Changing Literature of Exploration", 2:00-4:00 P.M.
Roy V. Boswell, Antiquarian Bookseller, Beverly Hills, California: "Yesterday's"
Nicholas Devereux, Library Supervisor, Information Services, Jet Propulsion Laboratory, Pasadena, California: "Today's"
To be announced: "How Today's Is Used to Produce New Knowledge"

INSURANCE DIVISION: Visit, University of Southern California Library and School of Library Science, 2:30-4:30 P.M.

MILITARY LIBRARIANS DIVISION *see* Aerospace Division above

MUSEUM AND PICTURE DIVISIONS: Panel Discussion with Tour and Reception, 2:30-4:30 P.M.
Los Angeles County Museum of Natural History Presentation: Robert Weinstein

NEWSPAPER DIVISION: Panel Discussion, "Management of Auxiliary Storage and Retrieval Systems", 2:00-4:30 P.M.
Edward Quill, Head Librarian, The Boston Globe: "Management of Material Circulation and Retrieval"
Robert A. Inman, Head Librarian, Denver Post: "Management of Picture Files"

John R. Frankland, Librarian, Milwaukee Journal: "Management of Records and Data, Clipping and Photo Information"

NUCLEAR SCIENCE DIVISION *see* Aerospace Division above

PETROLEUM DIVISION *see* Aerospace Division above

PICTURE DIVISION *see* Museum Division above

PUBLISHING DIVISION: Tour, Henry E. Huntington Library and Art Gallery, San Marino, 1:00-4:00 P.M. (Limited to Division Members)

Reception, Zeitlin & VerBrugge: 5:00-6:30 P.M.

SCIENCE-TECHNOLOGY DIVISION: Panel "Mechanized Circulation Systems", 2:00-4:00 P.M.

Moderator: H. B. Landau, Technical Staff, Auerbach Corporation, Philadelphia, Pa.

James R. Cox, Head, Circulation Department, University Research Library, University of California, Los Angeles: "Planned University-Wide Machine-Readable I.D. Card at UCLA"

R. A. Kennedy, Head, Library Systems Department, Bell Telephone Laboratories, Murray Hill, N. J.: "BELLREL, the On-Line, Real-Time Library Circulation System" at Bell Telephone Laboratories (See Abstract No. 16)

Donald V. Black, Library Systems Analyst, System Development Corporation: "Motivation and Method in Circulation Management"

SCIENCE-TECHNOLOGY DIVISION

PAPER AND TEXTILE SECTION: Panel, "Information Automation Now and in the Future", 2:00-4:00 P.M.

Moderator: Fred C. Battell, Librarian, U.S.D.A. Forest Service, North Central Forest Experiment Station, St. Paul, Minnesota.

Mary L. Scribner, Assistant Librarian, The Institute of Paper Chemistry, Appleton, Wisconsin: "Information Automation at the Institute of Paper Chemistry"

R. C. Sheldon, Department of Mechanical Engineering, Textile Division, Massachusetts Institute of Technology: "Design of an On-Line Computer-Based Textile Information Retrieval System"

R. K. Summit, Ph.D., Lockheed Missile and Space Research Laboratories: "DIALOG, A New Information Retrieval Computer Language"

PUBLIC UTILITIES SECTION: Program and Tour, Los Angeles Water & Power Building, "Automated Services in Public Utility Libraries", 1:30-4:00 P.M.

TRANSPORTATION DIVISION: Panel, "Automation in Transportation Libraries", 2:00-5:00 P.M.

Joseph C. Marsh IV, Information Specialist, Highway Safety Research Institute: "Subject Index Facets"

Dahlne Dolan, Assistant Librarian, Canadian National Railways: "A Microfilmed Catalog"

Ernest Horne, Assistant Librarian, Research Laboratories, General Motors Corporation: "Automated Library Activities at General Motors"

Lois Zearing, Librarian, National Safety Council: "Coordinate Indexing"

Air Force Librarians' Special Meeting: 5:00-6:00 P.M.

Incoming Division Officers: 5:00-6:00 P.M.

EVENING

DOCUMENTATION DIVISION: Informal Discussion, 9:00-11:00 P.M.

Discussion Leader: Robert M. Hayes, Ph.D., Institute of Library Research, University of California, Los Angeles

Division Open Houses: Business & Finance, Metals/Materials, Social Science, 9:00-11:00 P.M.

Wednesday, June 5

MORNING

ADVERTISING AND MARKETING DIVISION: Panel Discussion and Divisional Papers, "Advertising and Marketing Libraries Preparing for the Future", 9:00 A.M.-noon
Moderator: Marilyn Modern, Librarian, American Association of Advertising Agencies
Bernadette A. Becker, Librarian, Campbell-Mithun, Minneapolis: "To Compute or Not to Compute"
Other papers to be announced

AEROSPACE DIVISION *see* Metals/Materials Division below

BIOLOGICAL SCIENCES DIVISION: Tour, UCLA Center for Health Sciences, 9:00-3:00 P.M.
10:00—Coffee
10:15—Panel on UCLA Brain Information Service
Speakers:
Pat Walter, Head of Bibliographic Unit
Peter Amacher, Co-Director of the Project and Associate Professor of Physiology
Allen C. Norton, Assistant Research Physiologist
12:00—Visit to the Biomedical Library

BUSINESS AND FINANCE, AND TRANSPORTATION DIVISIONS: Panel Discussion, 9:00 A.M.-noon
"Foreign Materials, Libraries, and Librarians": 9:00-10:45 A.M.
Coordinator: Audree Malkin, Assistant Librarian, UCLA Graduate School of Business Administration, Los Angeles
Sarah R. Margolis, Ph.D., Foreign Materials Bibliographer, UCLA Graduate School of Business Administration, Los Angeles: "The Acquisition of Foreign Materials"
Amalia Rodriguez, Assistant Librarian, Instituto de Economia, Universidad de Chile, Santiago, Chile: "Library Cooperation and Coordination in Chile"
Isabel Olivera, Director, Escuela de Administracion de Negocios para Graduados, Lima, Peru: "Libraries for the Business Community in Peru"
"Reports of Cooperative Business Library Projects and Programs": 11:00-noon
Coordinator: Charlotte Georgi, Chief Librarian, UCLA Graduate School of Business Administration, Los Angeles
Margaret Keefe, Business and Industry Department, Flint Public Library, Michigan: "Activities of the ALA Reference Service to Business Committee"
Marion M. Smith, Director, Jackson Library, Graduate School of Business, Stanford University, California: "Activities of the California Library Association Business and Technology Librarians Roundtable"
Phyllis I. Dalton, Assistant Librarian, State Library, Sacramento, California: "The State Technical Services Act and Business Information Network Plans in California"

DOCUMENTATION, NUCLEAR SCIENCE, AND PETROLEUM DIVISIONS: Visit and Demonstration, "On-Line, Real-Time Literature Searching of Refining Literature Abstracts for 1966", 8:00-10:00 A.M. (Limited to members of sponsoring Divisions)
Richfield Technical Information Center, Watson Refinery, Atlantic Richfield Oil Company, Wilmington, California, Hester L. Dale, Supervisor

ENGINEERING DIVISION: Tour, Douglas Aircraft Company, Huntington Beach, California, 9:00 A.M.-1:30 P.M.

GEOGRAPHY AND MAP DIVISION: Tour, Possible Visits to Map Library, UCLA; Latin American Center, UCLA; and other collections to be announced. 9:00 A.M.-5:00 P.M.

INSURANCE DIVISION: Panel Discussion, 9:30-11:30 A.M.
Host: Blue Cross of Southern California
"Evaluation of Special Library Service for Upper Management"
Moderator: Alden F. Jacobs, Secretary-Treasurer, Life Office Management Association, New York City

Martha T. Boaz, Dean, School of Library Science, University of Southern California, Los Angeles

Raymond J. Peter, Associate Director, Planning and Analysis, The Prudential Insurance Company of America

Robert J. Thomas, Vice-President for Government, Public and Professional Relations, Blue Cross of Southern California

Josephine A. Calloway, Librarian, Metropolitan Life Insurance Company, Pacific Coast Home Office

METALS/MATERIALS AND AEROSPACE DIVISIONS: Tour, North American Rockwell Corporation, Los Angeles Division, Materials Laboratory and Microfiche Center, El Segundo (Limited to 100 M/M or Aero Division Members), 10:00 A.M.-4:00 P.M.

MUSEUM DIVISION: Tour, Los Angeles County Museum of Art, 9:00 A.M.-noon

NEWSPAPER DIVISION: Program and Luncheon Meeting, "How to Motivate Employees," 10:00-2:00 P.M.

Speaker and Discussion Leader: William Wilson, President, Pacific Personnel Service Inc.

NUCLEAR SCIENCE DIVISION *see* Documentation Division above

PETROLEUM DIVISION: Visit and Demonstration, 8:00-10:00 A.M. (See Documentation Division above)

Tour: By boat to THUMS, with briefings on geophysical exploration, offshore drilling, production (Humble), pipelines, refining (Union and Tidewater), marketing (Atlantic Richfield) and economics, 10:00 A.M.-6:00 P.M.

PHARMACEUTICAL DIVISION: Papers Session, "Scientific Approach to Library Studies," 9:30-11:30 A.M.

Super Los Angeles 1968 Conference Checklist

You are coming to Los Angeles? ☐

You have made your hotel reservation? ☐

You have mailed your Pre-Registration Form? ☐

Do it Today . . . Not Mañana!

1. "Objective Tests of Library Performance" (see Abstract No. 15), paper by: Richard H. Orr, M.D., Director, Institute for Advancement of Medical Communication, Philadelphia, Pa.; Vern Pings, Ph.D., Librarian, Medical Center Library, Wayne State University, Detroit, Michigan; Irwin H. Pizer, Director, Upstate Medical Center Library, New York State University, Syracuse, New York; and Edwin Olson, Ph.D., Research Associate, Institute for Advancement of Medical Communication, Philadelphia, Pa.
2. "Subject Searching Comparing *Science Citation Index, Chemical Abstracts, Index Medicus:* Preparation of a Drug Bibliography," paper by: Laura Rieger, Senior Literature Scientist, Smith, Kline, and French Laboratories, Philadelphia, Pa.
3. "Use Study of Journal Titles in a Pharmaceutical Library," paper by: Victor Basile, Librarian, Wyeth Laboratories, Radnor, Pa., and Reginald Smith, Librarian, Wampole Laboratories, Stamford, Conn.

PICTURE DIVISION: Tour, UCLA Libraries, Guide: Robert Weinstein, 9:30-11:15 A.M.

SCIENCE-TECHNOLOGY DIVISION: Tour, U.S. Navy Pacific Missile Range, Pt. Mugu (advance application required by May 6), 8:15 A.M.-5:00 P.M.

SOCIAL SCIENCE DIVISION: Program Meeting, "Work of the Community Health Center, Watts District, Los Angeles," 9:00 A.M.-noon

Elsie Giorgi, Ph.D., Coordinating Consultant for the Health Center; Robert E. Tranquada, Ph.D., Assistant Project Director; Charles R. Hull, Administrator for the Health Center

TRANSPORTATION DIVISION *see* Business and Finance Division above

LUNCHEON

AEROSPACE DIVISION *see* Metals/Materials Division below

BIOLOGICAL SCIENCES DIVISION: Luncheon Meeting, University Recreation Center, UCLA, Donald O'Malley, Professor and Chairman, Department of Medical History, 1:00-2:30 P.M.

ENGINEERING DIVISION: Luncheon, McDonnell-Douglas Aircraft Company, Huntington Beach

GEOGRAPHY AND MAP DIVISION: Luncheon, Dr. Charles F. Bennett, Jr., Latin American Center, UCLA: "Latin American Cartography"

INSURANCE DIVISION: Luncheon and Speaker (Limited to Division Members), 12:30-2:30 P.M.

Muir Dawson, Dawson's Book Shop, Los Angeles

Host: The Prudential Insurance Company of America

METALS/MATERIALS AND AEROSPACE DIVISIONS: Luncheon, Aerospace Corporation Cafeteria, El Segundo, 1:00 P.M.

MUSEUM DIVISION: Luncheon, Farmer's Market, 12:30 P.M.

NEWSPAPER DIVISION: Luncheon and Speaker, 12:00-2:00 P.M.

Continuing Program: William Wilson, "Motivating Employees"

PICTURE DIVISION *see* Publishing Division below

PUBLISHING AND PICTURE DIVISIONS: Luncheon—Special! El Dorado Room, The Music Center, Los Angeles, 12:00-2:00 P.M.

Movie, talk and discussion: Parke-Bernet & Sotheby's "The Auction World"; Narrator: Jerry E. Patterson, Vice-President, Parke-Bernet & Sotheby's

SCIENCE-TECHNOLOGY DIVISION

PUBLIC UTILITIES SECTION: Luncheon and Tour, 12:00-3:30 P.M.

Southern California Edison Company's Modern Living Center, Long Beach

AFTERNOON

ADVERTISING AND MARKETING, AND PICTURE DIVISIONS: Joint Tour, MGM Research Department, 20th Century-Fox Research Department, 3:00-5:00 P.M.

AEROSPACE DIVISION *see* Metals/Materials Division below

BIOLOGICAL SCIENCES DIVISION: Program Meeting (See Luncheons), 1:00-2:30 P.M.
Executive Board Meeting, 4:00-5:00 P.M.

BUSINESS AND FINANCE, AND TRANSPORTATION DIVISIONS: Tour, UCLA Campus, 2:00-9:00 P.M.

Presiding: Alfred Maupin, Development Research Associates, Los Angeles; Jack Gilstrap, Assistant General Manager, Southern California Rapid Transit District: "Information Needs of Transportation Executives," 2:30-3:00 P.M.

Presiding: Charlotte Georgi, Chief Librarian, UCLA Graduate School of Business Administration, Los Angeles; Page Ackerman, Associate University Librarian, UCLA: "Evolving Principles of Personnel: A Practical Approach," 3:00-3:30 P.M.

Presiding: Andrew H. Horn, Dean, UCLA Graduate School of Library Service; Paul Wasserman, Dean, University of Maryland School of Library and Information Services: "Problems of Library Manpower Needs; A National Survey," 3:30-4:30 P.M.

Cocktails, 5:30 P.M.

CHEMISTRY DIVISION: Papers Session, 2:30-5:00 P.M.

James L. Wood, Librarian, Chemical Abstracts Service, Columbus, Ohio: "A Comprehensive List of Periodicals for Chemistry and Chemistry Engineering Libraries";

Alice Y. Chamis, B. F. Goodrich Research Center, Brecksville, Ohio: "The Role of Systems Analysis in the Design of Information Systems" (See Abstract No. 9);

Samuel Rothstein, School of Librarianship, University of British Columbia: "A Library Educator Looks at Reference Teaching";

Elizabeth W. Kraus, Head Librarian, Eastman Kodak Research Laboratories, Rochester, N. Y.: "Microstrip Catalog for Books"

DOCUMENTATION AND NUCLEAR SCIENCE DIVISIONS (in hotel): Panel, 2:00-4:00 P.M.
"Terminal-Oriented Library Information Processing and Retrieval: Practices and Problems Encountered in the World of On-Line, Real-Time, Computer-Based Library Service"

Moderator: Frederick W. Holzbaur, Staff Systems Analyst, Terminal Systems Department, Systems Development Division, IBM Corporation, Poughkeepsie, N. Y.

Caryl K. McAllister, Advanced Systems Development Division, IBM Corporation, Los Gatos, California

Charles H. Stevens, Project Intrex, Massachusetts Institute of Technology, Cambridge, Massachusetts

Demonstration, 4:15-5:00 P.M.

INSURANCE DIVISION: Tour, Prudential Western Home Office, Los Angeles, 3:00-5:00 P.M.

METALS/MATERIALS AND AEROSPACE DIVISIONS: Tour, Aerospace Corporation, Library and Materials Sciences Laboratory, El Segundo

MILITARY LIBRARIANS DIVISION: Panel Discussion, "Specialized Information Centers and Military Libraries," 2:00-4:00 P.M.

Charles M. Gottschalk, Chairman, Federal Library Committee Task Force on Role of Libraries in Information Systems, Washington, D. C.: "Report from the Task Force"

Doris P. Baster, Deputy Librarian, Naval Research Laboratory, Washington, D. C.: "Operation Shoestring"

George R. Luckett, Librarian and Professor, Naval Postgraduate School, Monterey, California: "SABIRS Program"

Virginia H. Yates, Technical Information Specialist, Cost Data Library, Air Force Systems Command: "Management of Cost Data Libraries"

MUSEUM DIVISION: Tour, Henry E. Huntington Library and Art Gallery, San Marino, 2:00-5:00 P.M.

NEWSPAPER DIVISION: Tour, Los Angeles Times, 3:00-5:00 P.M.
Guide: Romeo Carrero, Head Librarian

NUCLEAR SCIENCE DIVISION *see* Documentation Division above

PICTURE AND ADVERTISING AND MARKETING DIVISIONS: Joint Tour, Walt Disney Studio Library (Limited to 30 Picture Division members), MGM Research Department, 20th Century-Fox Research Department, 3:00-5:00 P.M.

SCIENCE-TECHNOLOGY DIVISION

PUBLIC UTILITIES SECTION: Luncheon and Tour, Southern California Edison Company's Modern Living Center, Long Beach, 12:00-3:30 P.M.

SOCIAL SCIENCE DIVISION: Tour, Los Angeles Superior Court Data Processing Center, 2:00-4:00 P.M.

TRANSPORTATION DIVISION *see* Business and Finance Division above
Incoming Division Officers: 5:00-6:00 P.M.

EVENING

BUSINESS AND FINANCE DIVISION: Dinner, UCLA Faculty Center, 6:30 P.M.
Welcome: George W. Robbins, Associate Dean, UCLA Graduate School of Business Administration, Los Angeles
Irving Pfeffer, Professor of Insurance and Finance, UCLA Graduate School of Business Administration: "How to Be the Wealthiest Librarian in Your Favorite Cemetery" (A serious address)

DOCUMENTATION AND NUCLEAR SCIENCE DIVISIONS: Dutch Treat Open House, 9:00-11:00 P.M.

INSURANCE DIVISION: Tour, San Antonio Winery, 7:30 P.M.

MILITARY LIBRARIANS DIVISION: Dutch Treat Happy Hour, 6:30-7:30 P.M.

NUCLEAR SCIENCE DIVISION *see* Documentation Division above

PETROLEUM DIVISION: Cocktails and Dinner, The Reef, Long Beach, 6:00 P.M.
Host and speaker: L. M. Ream, Jr., Executive Vice-President, Atlantic-Richfield Company: "Expectations of Tomorrow's Management About the Place of Libraries/Information Centers in the Industrial Organization"

Thursday, June 6

BREAKFAST

METALS/MATERIALS DIVISION: Incoming Executive Board and Committee Chairmen Meeting (Continental Breakfast), 7:30-9:00 A.M.

MORNING

Third General Session: "National Data Banks", 9:00 A.M.-noon
Presiding: Helen J. Waldron, Conference Program Chairman, The RAND Corporation, Santa Monica
Edward L. Brady, Chief, Office of Standard Reference Data, Institute for Basic Standards, Bureau of Standards, Washington, D. C.: "The National Standard Reference Data System"
Dwaine Marvick, Chairman of the Council of Social Science Data Archives, Professor of Political Science, University of California, Los Angeles: "Social Science Data Archives: Service Bureaus or Laboratories?"
Ezra Glaser, Special Assistant to the Director for Scientific Communications, National Institutes of Health, Bethesda, Maryland: "Some Characteristics of a Large Information System, which includes a Federal Statistical Data Center, and Specialized Libraries"

Constance Citro, Staff Assistant, Data Access and Use Laboratory, U. S. Bureau of the Census, Washington, D. C.: "The Census Bureau as an Information System: Developments in Increasing Access to Census Data" (See Abstract No. 10)

M. E. Maron, Professor of Librarianship and Associate Director of the Institute for Library Research, University of California, Berkeley: "Large-Scale Data Banks: Will *People* Be Treated as Machines?" (See Abstract No. 11)

LUNCHEON

ADVERTISING AND MARKETING DIVISION: Luncheon and Speaker, 12:00-2:00 P.M.

AEROSPACE *see* Documentation Division below

BIOLOGICAL SCIENCES DIVISION *see* Documentation Division below

CHEMISTRY DIVISION *see* Documentation Division below

DOCUMENTATION, AEROSPACE, BIOLOGICAL SCIENCES, CHEMISTRY, METALS/MATERIALS, MILITARY LIBRARIANS, NUCLEAR SCIENCE, PETROLEUM, PHARMACEUTICAL, AND SCIENCE-TECHNOLOGY DIVISIONS: Joint Luncheon, 12:00-2:00 P.M.

Felix Sviridov, Secretary General, Federation Internationale de Documentation (FID), The Hague, The Netherlands: "FID and Its Activities"

METALS/MATERIALS DIVISION *see* Documentation Division above

MILITARY LIBRARIANS DIVISION *see* Documentation Division above

NEWSPAPER DIVISION: Luncheon Meeting, Introduction of New Officers, 12:00-2:00 P.M.

NUCLEAR DIVISION *see* Documentation Division above

PETROLEUM DIVISION *see* Documentation Division above

PHARMACEUTICAL DIVISION *see* Documentation Division above

SCIENCE-TECHNOLOGY DIVISION *see* Documentation Division above

SOCIAL SCIENCE DIVISION

PLANNING, HOUSING AND BUILDING SECTION: Luncheon and Speaker, 1:00-3:00 P.M.

Allan Temko, Director, Center for Planning and Development Research, Institute of Urban and Regional Development, University of California, Berkeley

TRANSPORTATION DIVISION: Luncheon and Speaker, 12:00-2:00 P.M.

John McMahan, Director, Development Research Associates: "Impact of Transportation on the Economy"

AFTERNOON

ADVERTISING AND MARKETING DIVISION: Panel Discussion, "Latin American, California, and Pacific Markets," 2:00-5:00 P.M.

Earl Timmons, Director of Research, J. Walter Thompson Company, Los Angeles: "Southern California"

(Latin American and Pacific Markets to be announced)

AEROSPACE DIVISION *see* Documentation Division below

BUSINESS AND FINANCE DIVISION: 3rd Annual Division Round Tables, "Within Our Circles", 1:00-4:00 P.M.

Coordinator: Mariana Reith, Head, Business and Economics Department, Los Angeles Public Library

Banking and Finance: Phyllis A. Waggoner, Federal Reserve Bank of San Francisco

Business and Industry: Floyd L. Henderson, Assistant Research Librarian, Cargill, Inc., Minneapolis, Minnesota

Public Libraries: Lulu B. Hardesty, Business and Labor Services Department, Akron Public Library, Ohio

University and College Libraries: Lorna M. Daniells, Baker Library, Harvard Graduate

School of Business Administration, Boston, Massachusetts

Business Meeting: 4:00-5:00 P.M.

CHEMISTRY DIVISION *see* Metals/Materials Division below

DOCUMENTATION AND AEROSPACE DIVISIONS: Joint Meeting, "Library Mechanization—1968", 2:00-5:00 P.M.

Presiding: Herbert Holzbauer, Chairman, Documentation Division, Special Libraries Association

Moderator: Melvin Weinstock, Herner and Company, Washington, D. C.

I. "The Integrated Library"

Meyer Cook, Consultant, Data Systems, Apollo Support Department, General Electric Company, Houston, Texas: "An Automated Library"

Marjorie Griffin, Library Manager, IBM Advanced Systems Development Division, Los Gatos, California: "The Integrated Mechanized Library at IBM, Los Gatos"

II. "Providing Access—Automated Catalogs"

Mary Ellen Jacob, Reference Librarian, Sandia Corporation, Livermore Laboratories, Pleasanton, California: "A Mechanized Book Catalog"

William A. Kozumplik, Manager, Technical Information Center, Lockheed Missiles and Space Company, Palo Alto, California: "From Computer to Microfilm—A Browsable Catalog"

III. "Systems That Are Different"

Ruth Atwood, University of Louisville Medical School, Louisville, Kentucky: "Automation on $10 a Day"

Audrey N. Grosch, Systems Coordinator, University of Minnesota, Bio-Medical Library, Minneapolis, Minnesota: "University of Minnesota Bio-Medical Serials System" (See Abstract No. 12)

IV. "Library Mechanization and How to Find Information About It"

Melvin Weinstock, Senior Resident Consultant, Herner and Company, Washington, D. C.: "Recent Advances in Library Mechanization"

Barbara A. Frautschi, Project Leader, Information Research Center, Battelle Memorial Institute, Columbus, Ohio: "Information Sources in Library Mechanization"

GEOGRAPHY AND MAP DIVISION: Do-It-Yourself Tours, Specific Geography or Map Libraries open to Division members, to be announced, 1:30-5:00 P.M.

INSURANCE DIVISION: Tours, Los Angeles Public Library, Dawson's Bookshop, 2:00-4:30 P.M.

METALS/MATERIALS AND CHEMISTRY DIVISIONS: Panel Discussion, "Problems Related to New Technological Uses of Copyrighted Works", 2:00-4:00 P.M.

H. Frederick Hamann, Patent Counsel, North American Rockwell Corporation

Joseph H. Kuney, Director of Business Operations and Director of Publications Research, American Chemical Society

Other speakers representative of computer and/or machine reproduction users of copyrighted material will be announced

MUSEUM DIVISION: Tour, UCLA Libraries and Museums, 2:00-4:30 P.M.

NEWSPAPER DIVISION: Program Meeting, 3:00-5:00 P.M.

Vivian Prince, Associate Professor, University of Southern California, School of Library Science, Los Angeles: "Subject Heading Creation and Control"

PICTURE DIVISION: Tour, Henry E. Huntington Library and Art Gallery, San Marino, 2:00-5:00 P.M.

Guides: William Parrish and Dr. Edwin Carpenter

SCIENCE-TECHNOLOGY DIVISION: Program Meeting, "Aerospace, Electronics and Movies —The Los Angeles SLA Spectrum," 2:00-4:00 P.M.

Presiding: Jerome Anderson, Head, Technical Library, System Development Corporation, Santa Monica

Victor J. Michel, Jr., Chief, Technical Information Center, Autonetics Division, North American Rockwell Corporation, Anaheim: "The Information Network of the Aerospace Systems Group, North American Rockwell Corporation"

Masse Bloomfield, Supervisor, Culver City Library, Hughes Aircraft Company, Culver City, California: "The Hughes Aircraft Company Microfilm Catalog"

Elliott W. Morgan, Head, Research Department, Metro-Goldwyn-Mayer, Inc., Culver City, California: "How Metro-Goldwyn-Mayer Uses Its Library Resources"

Shirli O. Jones, Chief Librarian, Douglas Aircraft Company, Santa Monica, California: "The Douglas Aircraft Mechanized Information Handling System"

Exhibits:

(1) The North American Automated Information System
(2) The Hughes Lodestar Microfilm Catalog System
(3) The Douglas Automated Information System
(4) A View of the Aerospace Corporation Technical Library

SCIENCE-TECHNOLOGY DIVISION: Advisory Committee Meeting, 4:00-5:30 P.M.

Post-Conference Seminar

Thursday, 3:00 P.M.-Saturday, 3:00 P.M., Lake Arrowhead Residential Conference Center (registration limited to 118)

"Management Skills and Techniques"

Arranged by Management Education Conferences, University of California Extension, Los Angeles, in cooperation with the Graduate School of Business Administration, UCLA

EVENING

Conference-Wide Cocktail Party: 6:00-7:00 P.M.

Host: J. W. Stacey, Inc.

Banquet: 7:30-10:00 P.M.

Presiding: Mrs. Elizabeth R. Usher, President

ADVERTISING AND MARKETING DIVISION: Open House, 10:00-12:00 P.M.

DOCUMENTATION DIVISION: Informal Discussion, 10:00-11:00 P.M.

Discussion Leader: Alfred S. Tauber, Director of Marketing, Commercial Products Division, Houston Fearless Corporation, Los Angeles "A Microforum on Information Retrieval"

Friday, June 7

BOARD OF DIRECTORS MEETING: 9:00 A.M.-5:00 P.M.

Post-Conference Seminar

Thursday, 3:00 P.M.-Saturday, 3:00 P.M., Lake Arrowhead Residential Conference Center (registration limited to 118)

"Management Skills and Techniques"

Arranged by Management Education Conferences, University of California Extension, Los Angeles, in cooperation with Graduate School of Business Administration, UCLA

ADVERTISING AND MARKETING DIVISION: Incoming Executive Board Meeting, 9:00 A.M.

GEOGRAPHY AND MAP DIVISION: All day Post-Conference tours to institutions outside the Los Angeles area (to be announced)

Abstracts of Conference Papers

ABSTRACT 1 (See Second General Session, Monday A.M.)

ALAN REES & TEFKO SARACEVIC: "The Impact of Information Science on the Practice of Librarianship"

The relationship between information science and library practice is more than of academic interest to a few library philosophers and *literati*. The quality of present and future library practice is largely dependent upon the degree to which innovation in information science and technology can be translated into improved and extended library service. A definition of "information science" (as distinct from documentation and information retrieval) is presented together with some discussion of the relationship of information science to librarianship in general and special librarianship in particular. A model of the two-way communication chain between information scientists and librarians is described in order to emphasize the flow of ideas from basic research in information science through applied research, development and practical application in the practice of librarianship. The roles of several types of individuals are defined and appropriate educational preparation is suggested.

Specific examples of work in information science possessing actual or potential application to librarianship are given. Areas discussed include: i) *Theoretical Work*—communication theory and models; systems analysis; models and properties of retrieval systems and processes; the "information problem" in relation to user requirements; ii) *Experimentation*—work in such areas as relevance judgments, testing and evaluation of information retrieval systems, indexing experiments, etc.; iii) *Developmental and Engineering Activity* —design and implementation of systems.

Finally, the role of the librarian is redefined in view of technological innovation on the one hand and shifting and increasingly complex user requirements on the other.

ABSTRACT 2 (See Second General Session, Monday A.M.)

AUDREY N. GROSCH: "Corporate Information Center (CIC) in an On-Line Systems Environment"

The role of the CIC Director in the realm of on-line management information systems will be to provide internal data and external data input to these systems accompanied by a method of accessing this information to get the desired outputs. These outputs will range from cathode-ray tube displayed information to detailed print reports dealing with various data of corporate interest. Selective dissemination and pre-edited factual and bibliographic information will assume an increasingly important part of library or CIC operation. The CIC Director must serve as a truly effective member of the corporate systems staff who will develop such systems. This will require today's CIC Director to educate himself in a variety of subject areas in scientific management, systems and computer technology. It will be even more important to develop his communications ability with top management and systems personnel. Further, it will require the CIC Director to develop approaches to data handling which depart from many traditional indexing systems which can adequately handle the local problems of corporate information.

ABSTRACT 3 (See Second General Session, Monday A.M.)

Staff Member, Washington University, School of Medicine Library, St. Louis, Missouri: "Pros and Cons of Book Catalogs"

The advent of computers for library work has intensified the previous resurgence of printed catalogs. This paper will discuss the historic reasons why printed catalogs of library holdings tended to disappear in the early 20th century, and how computer-based catalogs overcome (or do not overcome) the problems of older printed catalogs. A cloudy view of the future will be given.

ABSTRACT 4 (See Second General Session, Monday A.M.)

JACK KING: "The Changing Undergraduate Philosophy and Its Implications for Future Library Services"

Although bare feet and mini-skirts indicate little more except that another college generation is among us, there is a genuine change going on in the philosophy of our college students, the future users of special libraries. It is a change brought about by the development of computers and automation.

To the modern undergraduate there is a firm conviction that machines can do routine work faster and more accurately than man can. From this follows the belief that man cannot and should not do work which can be done by machines. The undergraduate sees the task of man to do work in creative fields and socially useful projects, areas in which the machine cannot compete.

The implications for the special library of the future are users who will be reluctant to do bibliographic work in order to locate information. To such persons the provisions of information will be work of a routine nature which machines can perform much more rapidly and accurately than either the user, librarian, or clerk can do. If libraries are to provide the service these future patrons will demand, it will mean the development of machine methods to economically provide complete and fast information service to all of their users on an even greater scale than the most sophisticated library is doing now.

ABSTRACT 5 (See Second General Session, Monday A.M.)

CARLOS A. CUADRA: "The Implications of Relevance Research for Library Operations and Training"

(Abstracts—Continued)

The concept of relevance is widely used, either explicitly or implicitly, in all kinds of information systems. Until recently there has been a tendency to view information users' judgments about the relevance of documents as rather private, mysterious, and even irrational. This paper discusses several major research efforts that have begun to remove some of the mystery and to open the way to more meaningful dialogue between information users and the librarians, information specialists and other intermediaries who attempt to serve them.

ABSTRACT 6 (See Second General Session, Monday A.M.)

NORMAN J. CRUM: "Dynamics of the Interrelationship Between Customer and Special Librarian"

The interactions in planned and unplanned information person-customer contacts are analyzed to determine what aspects of the process result in successful conveyance of information. Case histories are used to better understand how this information transfer occurs and from these are derived techniques for improving future information service.

An underlying assumption is that the information person must exploit more than the traditional techniques to remove the physical, psychological, and other barriers between the information service and customer. This means that the customer must be led to visualize the information person as a qualified and enthusiastic participant on the "user's side of the fence."

After describing the milieu in which the information service operates, the "question-asking-and-responding" environment is analyzed. Also dissected are the less formalized and understood contacts between the information person and customer; e.g., use of other company facilities and participation in casual conversation.

One conclusion is that many customers learn about and use the information service in quite unexpected ways. Suggestions are made on how traditional attitudes, functions, and responses can be modified to increase the effectiveness of the information person-user relationship as measured by customer satisfaction.

ABSTRACT 7 (See Second General Session, Monday A.M.)

ROBERT L. PATRICK: "Pitfalls in an Automated World"

Not too many years ago, the professional librarian considered computers with a jaundiced eye: What were these monsters going to do to his library? How would his professional life be altered? What new problems would these systems solve? Create? Today these fears have been cast aside and thinking librarians recognize that the computer is a powerful tool which can be used or abused in accordance with the skills of the practitioner.

Although the computer has not yet deeply penetrated into the inner workings of very many libraries, the pattern is clear. We are introducing a new tool based on a foreign technology and highly technical skills into a field which has been rather quiescent for a long period. Perhaps we can learn from what others have experienced by introducing the computer into their professions. Many lessons can be drawn from the experience of others which are just as topical to the library scientists as they were at the point of initial discovery.

Computer techniques are developing rapidly and we now know quite a bit about some kinds of file organization, searching and retrieval. Similarly, we know of some of the difficulties associated with planning for a computer, introducing new skills into the library, administering computer personnel, evaluating on-going computer operations, financing, budgeting, scheduling, rescheduling, management acceptance, and user cooperation. Analogies will be drawn from experience in related fields to give the librarian a glimpse at what the automated future holds.

ABSTRACT 8 (See Second General Session, Monday A.M.)

ROBERT A. MINER: "The Automation Challenge to Tomorrow's Management"

Automation carries many definitions. To most library managers, automation is functional—indexing, abstracting, access. To other kinds of management, automation is often hardware—computers, cameras, remote viewers.

Finding the right definition for a particular circumstance is a challenge to modern library management. To participate with upper management in future automation decisions affecting their own operations, library managers must be aware of the potential automation functions of electronic computers and electronic graphic storage systems. Information on these topics will be presented as an aid to library management decision-making.

ABSTRACT 9 (See Chemistry Division, Wednesday P.M.)

ALICE YANOSKO CHAMIS: "The Role of Systems Analysis in the Design of Information Systems"

How do you decide what systems should be automated? This is an interesting question often asked by librarians, information center personnel, as well as other management personnel. A survey of the total operations is the starting point for any system automation. A detailed system analysis study must be made for each responsibility and procedure, as well as the staff time distribution. Before any system is changed, it should be analyzed to determine its objectives, procedures, problems and solutions. This type of analysis will reveal where automation is feasible and desirable. The techniques and methods used in the system analysis are discussed. From this system analysis, one formulates a long-range plan which is to be

implemented as staff and/or equipment become available. Furthermore this analysis can be used to communicate the goals, problems and functions of a library or information center to the top management of the organization.

ABSTRACT 10 (See Third General Session, Thursday A.M.)

CONSTANCE F. CITRO: "The Census Bureau as an Information System: Developments in Increasing Access to Census Data"

The paper will discuss the idea of the Census Bureau as a national information system which, in effect, is already in existence and has been for decades. It will outline the plans the Bureau has to become even more useful as an information system, specifically the Bureau's projected data delivery system for the 1970 census of population and housing.

This data delivery system will include the extensive published reports familiar from past censuses—but with the addition of some new subject content. Backing up the published material will be a wealth of unpublished data available in a variety of forms made possible by recent developments in automatic data processing—computer tape, microfilm copy created directly from computer tape, etc. It is planned that more unpublished data will be available than in 1960 and that it will be available for small geographic areas tailored to local users' needs—zip code areas, traffic zones, block groups, etc. Finally, the 1970 data delivery system will include the capability to make special tabulations from unpublished data upon request by the user.

The problem for the user and for the research librarian whose job is to aid the user, is to find out about the products of the census data delivery system and how to obtain access to them. The Bureau, recognizing its responsibility in this area, in early 1967 set up the Data Access and Use Laboratory to investigate problems of facilitating access to and use of census data.

Projects of the laboratory include 1) a Small-Area Data Activities Newsletter, 2) a series of Data Access Descriptions, 3) a Census User Dictionary giving English language definitions of census terminology, 4) a User Guide to the 1970 published and unpublished census products, and 5) user guides oriented to the needs of particular user groups such as lawyers or businessmen, suggesting how they can obtain and use census data of all kinds—population, housing, governments, manufactures, etc.

The laboratory is planning a workshop at the 1969 SLA Conference in Montreal designed to familiarize librarians with the products of the 1970 census data delivery system and with the various aids to census data access and use. Comments and suggestion for this workshop will be invited.

ABSTRACT 11 (See Third General Session, Thursday A.M.)

M. E. MARON: "Large Scale Data Banks: Will *People* Be Treated as Machines?"

Given the existence of large-scale data banks that store information about people (concerning their health, education, financial status, etc.), a "natural" next step in the direction of full automation will be the automatic selection of people. That is, for example, the use of machines to decide who shall be permitted to attend certain schools, or obtain an educational loan, or given a travel visa, or allowed a security clearance, or have their driver's license revoked, etc. The selection process will be automated by having a machine search through its file of personnel data and select (or reject) those people whose records match on certain criteria. This paper will describe the logic of automatic selection, and suggest how this process constitutes one of the most serious threats to our society—the tendency to treat people as machines.

ABSTRACT 12 (See Documentation and Aerospace Divisions, Thursday P.M.)

AUDREY N. GROSCH: "University of Minnesota Bio-Medical Serials System"

System development, initiated Summer 1966, resulted in a batch mode arrival card system designed to be MEDLARS compatible. This system replaces all other records in the Bio-Medical Library for the included file entries and certain records external to the Bio-Medical Library except accounting records. The system is designed to provide convertible data files for a third generation system which will operate in an on-line, random access mode utilizing cathode-ray tube (CRT) display units for file update and inquiry. Over 7,000 serials are included in the master file, 2,500 operating under the check-in system as active file entries.

The computer system used is a Control Data 3300 (32k, 24 bit word, 2 tapes, 3 disks) and programs are coded in 3200 FORTRAN, optimal for this system and its requirements. Problems have been confined to those of data record conversion, management and audit of the master file data. This system differs in many respects from other batch processing serials systems and has been designed primarily for human ease in operation rather than programming simplicity. Its chief difference lies in its sophistication in handling of the check-in module of the system, its functionally designed staff and library user outputs, and its totally variable bibliographic data fields accompanied by certain fixed field data.

With the present tape blocking factor each record has a theoretical limit of 31,000 characters, insuring a completely flexible bibliographic input. File update and correction are handled through sophisticated programs, especially in the holdings statement variable field which is composed of hierarchical elements giving complete holdings no matter how scattered or long. Stress is placed on the operational differences of this system and the problems or potential problems large libraries requiring such a sophisticated system will encounter in the design, implementation, and installation of similar systems.

(Abstracts—Continued)

ABSTRACT 13 (See Joint Meeting of Aerospace and Other Divisions, Tuesday P.M.)

ANTHONY J. COSTANZO: "Breaking the Information Barrier Within a Company"

Providing the professional people within a company with desired patent information is definitely essential for breaking the information network within a company. Patents contain information vital for either the direct or indirect development of science and industry. The retrieval of both United States and foreign patent literature may be significantly advanced by using magnetic tape data banks with high speed computers. The scope and time of coverage and the cost of IFI/Plenum Data Corporation's *Uniterm to U. S. Chemical Patents* and the American Petroleum Institute's *Abstracts of Refining Patents,* two computerized patent systems, will be reviewed. The types of patent searches possible, the devising of search strategy using Boolean logic and/or weighted-terms, computer output formats, programming problems, searching costs, and satisfaction with search results of these systems will also be discussed. Searching by computer of the *Derwent Patents Abstracts Publications* will be detailed.

ABSTRACT 14 (See Petroleum Division, Monday P.M.)

RAY R. DICKISON: "Microfilm in Special Libraries"

In the last several years, the microfiche has become a well-established form for the handling of research and development report literature. There are indications that in the next few years, microforms may become a well-established medium in special libraries for the handling of a large portion of the scientific journal literature. The advantages and disadvantages to the user and the library of handling journal literature in this form are summarized. The principal conclusion from the analysis, which is confirmed by initial operating experience, is that cartridge microfilm is an acceptable form both to the user and the library for the handling of scientific journal literature.

ABSTRACT 15 (See Pharmaceutical Division, Wednesday A.M.)

RICHARD ORR: "Objective Tests of Library Performance"

In July 1966, the Institute for Advancement of Medical Communication began work on a project aimed at developing methods for collecting objective data suitable for planning and guiding local, regional, and national programs to improve biomedical libraries and the biomedical information complex. Among the methodologic tools that have resulted from this work are objective tests of a library's capabilities for delivering the documents its users are likely to need, for verifying citations of such documents, and for answering questions of "simple fact." To the extent that the test conditions simulate operating conditions, the tests evaluate performance of these three basic types of library service. In a series of field trials, materials appropriate for testing academic libraries that serve biomedical researchers have been developed and assessed for reliability and practicality. These materials are also suitable for nonacademic libraries and information services serving a biomedical research clientele, and the principles upon which the tests are based can be used to develop test materials appropriate for libraries serving other types of clientele. In addition to these tests, the project's results include a number of other methodologic tools that may be useful for planning and managing special libraries.

ABSTRACT 16 (See Science-Technology Division, Tuesday P.M.)

R. A. KENNEDY: "BELLREL, the On-Line, Real-time Library Circulation System at Bell Telephone Laboratories"

BELLREL—Bell Laboratories Library Real-time Loan System—has been in operation since January 1968. The initial network links the three largest units in the library system to a central computer shared with other users. Each of these libraries (at Holmdel, Murray Hill and Whippany, New Jersey) has two on-line terminals with keyboard, printer and card read facilities. Transactions may be entered by keyboard only or in combination with card reading for maximum flexibility in handling all library materials, with or without the borrower being present. Master disk records are provided for publications and man files. Some 20 different transactions, covering loans, returns, reservations and a range of queries (e.g., What libraries have loan copies of title X still available?) are handled in real-time. Batched processing provides daily loan lists, overdue notices, high-demand lists, use-analyses and other products. The prime objectives of BELLREL include improved service through computer pooling of library collections, up-to-date reporting on the status of any publication, immediate identification of all items on loan to a person, automatic follow-up on reserve queues, etc.; reduced clerical labor; better inventory control; much enriched feedback for library management and more effective realization of the information network philosophy.

ABSTRACT 17 (See Petroleum Division, Monday P.M.)

D. P. HELANDER: "Information Processing to Facilitate the Retrieval of Petroleum Industry Technical Literature and Patents"

Two centralized, information processing centers now provide complementary abstracting and indexing services for the Petroleum Industry. The Department of Information Services at The University of Tulsa (TU) provides coverage of current literature and patents in the field of petroleum exploration, development and production, and the Central Abstracting and Indexing Service of the American Petroleum Institute (API) handles the

field of petroleum refining and petrochemicals. Subscribing companies participating in these cooperative, cost-sharing projects are provided comprehensive coverage of both domestic and foreign technical information, thereby reducing duplication of effort within the industry.

Operating independently, each service provides published abstracts of the pertinent publications, as well as preparing manual and computerized searching tools, based on controlled-vocabulary indexing. The specialized thesauri, used by the two indexing services, have been correlated for compatible searching by elimination of conflicting terms. In addition, the computer tapes, issued by each organization, for storage and retrieval are identical in format making it possible to conduct retrospective searches in both files simultaneously. The philosophy and method of operation for this industry information system are discussed and the retrieval tools produced are described.

ABSTRACT 18 (See Documentation and Social Science Divisions, Monday P.M.)

ROBERT M. GORDON: "Computers, Innovation and Education"

The establishment of the University of California, Irvine campus and the simultaneous emergence of a technology of information processing provide opportunities to experiment on a large scale with alternative modes of teaching, learning and administration. We want to exploit computing technology for the benefit of everyone associated with learning and teaching—with education: students, teachers, administrators, trustees, parents, taxpayers. And we intend to accomplish these purposes in such a way that human beings will always dominate, that the computer will always be servant to *every* man whose life is touched by the uses to which the computer is put. This ancillary, but primary, purpose introduces novel questions into our experiments, some of which questions are concerned with values and goals. The formulation of the questions and the quest for acceptable answers have profound implications for the nature of computer-assisted man.

ABSTRACT 19 (See Documentation and Social Science Divisions, Monday P.M.)

HARVEY MARRON: "ERIC—A Nationwide Network to Disseminate Educational Information"

The ERIC program is the only national government information system which by design allows its subject experts to remain and grow in their own particular professional environments. The information products, services and tools are not generated by documentalists or information scientists but by professionals working in the specific discipline whose documentary duties are adjuncts to their primary career thrusts. This arrangement has two distinct advantages. First, the routine documentary products (abstracting, indexing, reference services, etc.) are of exceptionally high caliber. Second, the system facilitates the creation of special documentary products from newsletters through the state-of-the-art studies. Since these products emanate from professionals within the educational community, they are highly "targeted" and, therefore, very responsive to the needs of that discipline. The conditions which allow for the generation of these highly specialized products also give rise to several special problems which are far from trivial. These problems also will be detailed.

The objectives of ERIC revolve around the dissemination of information. Mechanized techniques are used, when such use results in faster, cheaper or better dissemination. ERIC is not interested in mechanization *per se*. ERIC is an information program utilizing mechanized techniques rather than a mechanized information system.

The ERIC network with emphasis on how it differs from the more usual information programs will be described. Its advantages and the disadvantages will be reviewed. Some of the more interesting of the special documentary products will be described. Finally, the ways in which high speed digital computers are used as well as the degree of mechanization of the system will be covered.

ABSTRACT 20 (See Second General Session, Monday A.M.)

RICHARD C. RAYMOND: "Industrial Management and Libraries"

The assets of an organization whether it be in business, education or some other activity, include its monetary resources, its physical property, its people, its good will, and the base of information upon which it operates. Our current accounting and measuring systems do not take proper account of some of these important assets. Yet it is extremely important that all of them be managed properly if the organization is to succeed. The information asset is probably the worst-managed asset in most of our organizations today. An important part of the work of managing a library is to develop the theory of this case in such a way that general management will work with and support the library.

ABSTRACT 21 (See Petroleum Division, Monday P.M.)

FRANKLIN S. VARENCHIK: "A Computerized System for Periodical Subscription Control"

In the Richfield Division of Atlantic-Richfield Company representatives of the Technical Information Center and the Systems and Procedures Department jointly developed a computerized system for Periodical Subscription Control. The nucleus of the system is a master file of the approximately 1,000 different periodicals subscribed to by the departments and employees of the company. Catalogued on the file for each periodical is such information as: title, previous titles, name and address of publisher, language of publication, publication frequency, name and location of subscribers, subscription price, subscription period, retention location, etc. As changes occur the file is updated by keypunching specially designed data transmittal forms and processing these cards on the company's computer.

(Abstracts—Continued)

Utilizing this master file, the project team has developed several programs which have proven to be of benefit to the company as a whole and to the Information Center specifically. One of these programs resulted in the implementation of an automated system of renewing periodical subscriptions, a heretofore cumbersome, costly, and time consuming process. Additional benefits derived from the system were: periodical cost control through elimination of duplicate subscriptions; the ability to rapidly locate particular copies of periodicals which may be demanded; centralized file maintenance; and, the ability to handle many different information processing applications. In the future, it is expected to incorporate books, internal company reports, association meeting papers, and correspondence into the system.

The Periodical Control System has enabled the Richfield Technical Information Center to keep pace with management's rapidly increasing demand for timely information,.

The 1968 SLA Annual Meeting

AS REQUIRED BY Article VI, Section 3 of the Association's Bylaws, notice is hereby given that the Annual Meeting of Special Libraries Association will be held at 9:00 A.M. on Tuesday, June 4, 1968, at the Statler Hilton Hotel, Los Angeles, California, during the Association's 59th Annual Conference. Included on the agenda are two proposed changes in the Bylaws; these proposed changes in the Bylaws are not related to the requirements for individual membership categories now under discussion. There are also included two proposals concerning an increase in membership dues.

Proposed Changes In Bylaws

At the request of the Board of Directors of Special Libraries Association, the Bylaws Committee is submitting two proposed changes in the Association's Bylaws. The three proposals will be voted upon separately. If the changes are approved by a majority of the voting members present and voting at the Annual Meeting, the changes will be submitted to the entire voting membership for mail ballot (Bylaws Article XV, Sections 1, 2 and 3).

1) **Privileges of Student Members.** On January 21, 1967 the Board of Directors approved a revised recommendation from the Advisory Council that Student members receive the official journal, *Special Libraries,* as part of their membership benefits. This action requires an addition to Article II, Section 5 of the Bylaws.

Proposed Bylaws	Present Bylaws
Article II, Section 5. A Student member shall be an individual who is enrolled in a library school of recognized standing either as a full-time or as a part-time student. A part-time student may not hold this class of membership for more than two years. A Student member shall have the right to affiliate with one Chapter, **and to receive the official journal free.**	Section 5. A Student member shall be an individual who is enrolled in a library school of recognized standing either as a full-time or as a part-time student. A part-time student may not hold this class of membership for more than two years. A Student member shall have the right to affiliate with one Chapter.

(Continued on Page 204)

The State Technical Services Act of 1965 is designed to assure the fullest industrial utilization of technical information resulting from federal research and development programs. Since the mechanics of technology transfer are uncertain, the Act encourages states to develop new and imaginative programs to bring useful information to local industry. Many of these programs involve extensive utilization of existing library systems. In the long run, the Act will be of great benefit to libraries and librarians since it will encourage broader use of information resources.

A Librarian Looks at The State Technical Services Act

CHRIS G. STEVENSON

THE STATE TECHNICAL SERVICES ACT of 1965 is concerned with the transfer of technology. The Act declares that "wider diffusion and more effective application of science and technology in business, commerce, and industry are essential to the growth of the economy, to higher levels of employment, and to the competitive position of United States products in the world markets . . . and that the benefits of federally financed research, as well as other research, must be placed more effectively in the hands of American business. . . ." The Act, administered by the Department of Commerce, provides for financial support from both the state and federal governments for programs designed to achieve these goals within a state or interstate area.

The Act is designed to make certain that the fullest industrial utilization is made of the enormous stockpile of information from federal research and development programs. Further, the potentials of existing, private, and foreign sources of technical and scientific information are not to be overlooked in bringing new technology to industry. The State Technical Services program is modeled after the very successful Agricultural Extension Service, and is particularly adapted to needs of the small manufacturer and industrialist, since the large firm is more likely to have its own staff and information resources for keeping abreast of technological advances. The intent of the program at its operating level within the states is to carry information about new technology to the potential user and to reduce the time lag between scientific innovation and industrial application.

The purposes of the Act have had strong congressional support. The small industrialist and manufacturer is a taxpayer, and he is well aware that the federal government is spending billions of his tax dollars annually for research and development. He wants to be assured that any research and development that was federally funded and that has application in the private sector of the economy is made available to him. He has made these views known to the Congress, and the Act embodies them. The mission-oriented agencies, like the Atomic Energy Commission and the National Aeronautics and Space Agency, already have their own technical spinoff programs which are making the useful technical information, generated by their respective research and development programs, available to industry.

The Act envisages many different approaches to the basic problem of technology transfer. This is desirable in view of the fact that the mechanics of technical transfer or technical spin-off are uncertain. States are being asked to devise new, imaginative, forward-looking programs to bring useful technical information to local industry. These programs will be financed with state funds

and matching federal funds. In fiscal year 1968, 6.5 million dollars was allocated by the federal government for the purposes of the Act.

Designated Agency

The Act is administered in each state by a "designated agency," named by the governor. In practice, this has generally turned out to be either a state university or the state Department of Commerce and Economic Development. In the case of the university, working responsibility generally falls to the Department of Industrial Research, and sometimes to a separate university agency, for example, the Utah Industrial Services Agency and the Tennessee Industrial Research and Advisory Services. In addition, each state has appointed an advisory council, made up of key business people, who review and pass on proposed programs.

As is apparent from the above discussion, a wide range of projects has been inaugurated under the auspices of the State Technical Services Act. These include dissemination of technical information, referral services, field services, seminars, courses in such subjects as use of computers in business, and seminars and workshops in such specialized technologies as metalworking, electronics, construction, food processing, numerical control, operations research, and structural mechanics.

Mr. Stevenson is manager of Technical Information, Pacific Northwest Laboratory, operated by Battelle Memorial Institute for the U.S. Atomic Energy Commission, Richland, Washington. As Chairman of SLA's Government Information Services Committee he chaired the 1967 Annual Convention session, May 30, New York City, at which the following three papers were first presented. His paper is based on work performed under the U.S. Atomic Energy Commission Contract AT(45-1)-1830.

However, many librarians are confused by the Act. They are concerned that still another information system is being set up within the federal government, or at least with federal support, when librarians are acutely aware that full use is not being made by industry of those libraries already in existence. This is an exaggerated concern. While the numerous state projects are aimed at bringing technical information to industry in a very direct way, they all involve more extended utilization of existing library systems. In some states, in fact, funds are actually being used to strengthen existing libraries. Pennsylvania, Texas, and Wisconsin, for example, operate industry-oriented information services from university libraries in those states.

Librarians, therefore, ought to be enthusiastic about the purposes of this Act. Any national program designed to direct more information to more people, and on a more useful basis, can only result in benefit to the library profession. Libraries should certainly offer to cooperate fully in the program (as many are doing) and to tailor their services to the needs of the program.

In thinking about the Act, librarians perhaps need to acknowledge a number of facts which tend to make them somewhat uncomfortable. First, whether they like to admit it or not, a great deal of information is transferred by techniques other than the printed word. Many small business executives are too busy to read extensively. Many technicians are not book-oriented, and learn much better in face-to-face meetings, where new techniques can be demonstrated. It is for these reasons that the Act encourages the holding of conferences, workshops, seminars, traveling exhibits, demonstrations, field services, referrals, and other techniques that update knowledge and technology in a very direct and visible way.

Second, the knowledge explosion is bringing into being an increasing number of agencies whose job it is to filter information for the use of a specialized clientele. Here again, considerably more is involved than simply making the information available. The information must be carefully selected by technical experts to meet a specific need. Often, state-of-the-art reviews are provided. Frequently, there is the need to prepare the information output in an interesting and at-

tractive format so that the intended recipient will be motivated to read and follow up on it. Such filtering agencies, or specialized information centers, are among the most important developments in the information business today. These centers involve the skills of many technical experts besides librarians. One may argue that the working relationships between such specialized information centers and libraries need further definition, but not about the importance of this development. Under the State Technical Services Act, more filtering agencies of this type will undoubtedly be created.

Specialized Switching Agencies

A third fact is that a proven method of transferring information is to bring together an individual needing information and a technical expert who is knowledgeable in the field. To serve this purpose, there are developing specialized switching agencies, or referral centers, which may not have large information files but whose primary task is to be aware of the sources of information and to serve as a connector between the supplier and the customer. The creation of new switching systems is also likely to increase under the State Technical Services Act.

All of these developments should be helpful to libraries and librarians. The principal aim of the State Technical Services Act program is to develop an interest in new technical information that will motivate the recipient to put it to work in building the economy. But first, the potential user needs to know that a particular development has taken place, and that it may be helpful to his business. If items of technical information, carefully selected for his needs, can bring these developments to his attention, then libraries stand to benefit greatly.

Librarians, therefore, should see an opportunity in the Act. They have known for many years that it is necessary for libraries and information centers to be outgoing and to carry their products to the potential user. The Act represents a missionary effort to bring information to many users who otherwise might not be aware of its existence. The fact that the Act plans to do this in many different ways ought to be of interest, but not of concern, to librarians. Anyone who is motivated to use information, regardless of the technique employed, can only help the library business over the long term.

The State Technical Services Act supports programs of state, regional, and national significance "to place the findings of science usefully in the hands of American enterprise." Resources are limited; knowledge is not; thus, the needs of man both here and abroad depend ultimately upon the exploitation of knowledge and not resources. To accomplish this purpose on a broad front requires extensive institutional involvement, interfacing at the local level with the needs and potentials of the "appliers of science," or business and industry. Educational institutions, state agencies, and nonprofit organizations throughout the country are joining the effort with matching funds and programs of continuing education, information and referral services, demonstrations, and field services. Highly experimental, and not totally committed to any single approach as being most effective in the transfer of technology, the State Technical Services Act nevertheless offers the private sector a number of options in being "served technically" by the introduction of scientific and technical information to their daily practice, employment potential, profit picture, and share in the $30 billion annual growth of the U.S. economy.

The State Technical Services Program at the National Level

PAUL J. GROGAN

THE STATE TECHNICAL SERVICES ACT of 1965, Public Law 89-182, is described in its preamble as "an Act to promote and encourage economic growth by supporting state and interstate programs to place the findings of science usefully in the hands of American enterprise." That statement is brief, eloquent, noble in its intent, and surprisingly close to the theme of Special Libraries Association.

One might have occasion to ask, why the national concern in this area? Yet the Congress goes on to answer the question by stating further in the Act "that wider diffusion and more effective applications of science and technology in business, commerce, and industry are essential to the growth of the economy, to higher levels of employment, and to the competitive position of United States products in world markets."

Secondary benefits also are expected to accrue to the nation from this program, following the example of U.S. agricultural wealth that amply serves the country's needs at home while permitting the greatest flexibility in the pursuit of both national and humanitarian interests abroad. Thus, success in this new "industrial extension service" means that the American business and industrial economy remain strong in the face of world competition, that we remain at the forefront in the application of science and technology, that the commitments of the United States around the world are served while contributing at the same time to a more favorable balance of payments.

Tertiary benefits deriving from this effort should include improvements in the quality of American life, attractive and economically viable local communities as places to live and work, and improvements in income among industrialist and laborer alike that pay regular returns upon the initial investment in technical services by federal and state governments.

The Potentials

At the White House signing ceremony September 14, 1965, President Johnson declared, "The test of our generation will not be the accumulation of knowledge. In that

we have surpassed all of the ages of man combined. Our test will be how well we apply that knowledge for the betterment of all mankind. . . . Today we sign into law the State Technical Services Act. We are committing ourselves to an intelligent and an orderly application of the great technical and scientific breakthrough of our time."

To these ends the fifty states, the District of Columbia, Puerto Rico, the Virgin Islands, and, more recently, Guam have engaged in the planning exercise prerequisite to participation in annual technical services programs. Some two dozen recurring technological and economic problems have been identified across the country that may be gathered together under four main headings: *1)* Existing local industry often fails to make optimum use of modern methods. *2)* Shortages exist with respect to experienced technical, engineering, scientific, and managerial personnel. *3)* The economy of the area, being in transition, is seen as unfavorably influencing potential for growth and development. *4)* Location, resource, geographic, and climate factors are often seen as limiting the potentials for highly industrialized development.

Setting the Stage

In addressing oneself to a subject of this kind it is helpful to draw upon either an item of historical fact or some currently topical information for perspective and possibly for use as a theme. It is in this context that I wish to make mention of two largely unrelated phenomena at loose in the world today.

Sunday supplement reading acquaints one with two great and largely unrelated explosions besetting the world today: one is *population* and the other is *information*. Permit me now to put both of these phenomena into perspective. Scholars in the study of world population tell us that there is a net gain of some seven thousand new persons on earth every hour. From another sector, we understand that the body of scientific literature is being enlarged at a rate equivalent to seven thousand encyclopedic pages per hour.

I said that the two explosions—of population and, let us say, the generation of new and useful information—are largely unrelated. Or are they? Apart from the fact that more population sooner or later means more scientists, and more scientists sooner or later mean more literature, what other couplings are there? If one viewed the earth from afar, he would observe a precarious equilibrium operating there between population and resources. True, there already are dangerous imbalances as represented by pockets of poverty in this country, and the threat of starvation is a very real presence over large areas of the globe. At the same time, the aspirations of people are known to be on the rise the world over, despite the demands of the burgeoning population and the decreasing useable space and resources. Thus, we see that if the hopes of these people are to be achieved over the long term—seven thousand new people each hour—they must be achieved through the potential wealth contained in the seven thousand pages of significant new literature each hour. So it must be that new public health information, more efficient methods of energy conversion and utilization, new products, improved methods of food processing and preservation, better distribution and marketing techniques, and so on, all taken together in the aggregate represent the increment of wealth by which seven thousand people are served, not for one hour but throughout the increasing span of their collective lives.

Statement of the Problem

We, therefore, see what terrible responsibility falls upon all of us, whether we view the world scene or that of our own community. The Office of State Technical Services (OSTS) is beholden under legislative mandate to achieve the maximum return from the information storehouse by placing "the findings of science usefully in the hands of American enterprise." The open-sesame by which this process is accomplished broadly, quickly, and with assurance is not well known. The formal educational process, of course, is at work here. But the time lag between a discovery, its incorporation in texts and curricula, its acquisition by students, and later practice throughout life must be measured in decades. In earlier generations, there were examples of inventive industrialists, in the patterns of Boulton and Watt and of Edison and Westinghouse, who shortened the time lag between discovery and use of new information in particular areas of great

utility to mankind. But the greater part of new scientific and technological information generated today comes from the efforts of specialists in the generation of knowledge largely for knowledge's sake, who may have neither the incentives nor the resources to find practical application for their extensions of man's information resource. Moreover, the abstract nature of much new discovery today does not point immediately to its general usefulness in the market place. Teflon, for example, was developed for more esoteric purposes than the prevention of sticking in kitchen fry pans. In fact, its use in the kitchen stands as one of the all-too-few classic examples of technology transfer from one sector of the economy to another.

The Program of Action

The search goes on for more effective mechanisms by which the worlds resource of open literature and manufacturing and business know-how can be brought to bear upon the needs and aspirations of man. Meanwhile, there has been instituted in our country a program of technical services undertaken to accomplish the purposes of "wider diffusion and more effective application" for science and technology and perhaps to demonstrate by successful experience some useful techniques for others to adopt. These technical services are to be action-oriented toward the solution of the problem itself and not to study the means by which the problem is to be attacked.

The Act describes technical services, in part, as

> activities or programs designed to enable businesses, commerce, and industrial establishments to acquire and use scientific and engineering information more usefully through such means as: *1)* preparing and disseminating technical reports, abstracts, computer tapes, microfilm, reviews, . . . including the establishment of state or interstate technical information centers for this purpose; *2)* providing a reference service to identify sources of engineering and other scientific expertise; . . .

These particular potentials of this program—or any other program of technology transfer, application, and use—seem to have captured the imagination of people who form a large portion of American opinion through their speaking and writing. The idea has gained wide acceptance that great potentials lie dormant within the covers of R&D reports that have been inadvertently shelved. This surely must be true in gross terms when you tabulate the R&D effort since World War II as approaching the $150 billion mark. But it is far from true in the isolated example of trying to effect a match between a specific R&D report and an isolated industrial need.

Why the concern? The annual rate of increase in our gross national product has been typically one-half that in any particular year of the most rapidly advancing nations. Of course, two factors help preserve our preeminence despite this disturbing statistic: *1)* our tremendous base being several times that of other larger nations, and *2)* our consistent growth, however moderate, whereas many other nations have experienced more sporadic or uneven growth over the longer term.

Another independent analysis shows that the "value added" per man-hour by the technologically most sophisticated companies in a given industry often excels the industry average by a factor of two or three and the technologically most obsolete competitors by a factor of five to ten.

All of these yardsticks provide compelling urgency for the greater realization of the potentials that lie within the R&D literature. Others on this program have inferred the specialized nature of this resource as it applies to the special librarian's interests. The problems confronting all is how to extract the essential information at the time and place of its need.

The approach to the use of the literature resource is along the route of focusing attention on the assessment of need by local institutions to which selected resources are later matched by their information and referral capabilities. It follows, of course, that no local information center can perform more than one-half of the task—the assessment of need—unless it has generalized sources of information to which it can turn.

But *information* is not *intelligence* until it has been analyzed and organized for use. The existing store—and the rapidity with which new information is being generated—now requires that large, centralized informa-

tion centers also be computerized. Nor may it be guaranteed that a collection of R&D reports, cited by a computer for relevance to a problem, represents a solution to that problem. At best, the problem solution lies within one or more of those reports. More generally, the problem solution must be gleaned from the contents of several reports. And the typical case very well might require continued search and synthesis of a problem solution based upon the use and reuse of every available source of information. In short, an experienced, knowledgeable, dedicated, and motivated individual has to get into the act to assure success in the application of report literature information to the specific problems of industry. OSTS is able to support such a person through the authority for field services cited above.

State Technical Services represents a new if not entirely unusual approach to the problem of economic growth. Moreover, all states and territories and the District of Columbia are participating in the national program according to their own assessment of need and mix of technical services in their respective approaches to the common objectives. Thus, OSTS is participating in a national experiment according to more than fifty potential formats. Additional variety is added to the experiment through the sixteen special merit program grants that were made in FY 1967.

There are parallels between all of this experience and the national information problem discussed above. The office thinks it important for the growth of this program that both the example and the experience of others—to differentiate between the plan and its execution—is an important information resource for other operatives in the same field of endeavor. In other words, we are privileged to participate in a wholly unique experience in which the operating manual is being written as we go along. It becomes imperative that the lessons of that experience be shared by many. Out of interaction and repeated examples, we might expect to see the elements of a model program of technical services obtain *definition* by a few, *verification* by others, and *repeated expression* by the many.

One of the experiences the states may enjoy is that of learning that their own scientific, engineering, and informational resources are substantial, particularly if catalogued and made generally known to potential users in the states. Highly specialized skills, of course, may be expected to exist outside any given state, either at regional or national levels. One of the roles OSTS proposes to encourage is that of referral to national sources of expertise. This does not mean that focus is to be upon Washington, New York, or Boston as the sources of national expertise. Indeed every community has its unique skill and contribution by which it augments the national economy.

OSTS also seeks to encourage innovation and entrepreneurship as recognized driving forces behind economic growth. This objective, no doubt, may be obscure from an initial reading of the State Technical Services Act. However, if one works backward from the objective of economic growth, then the encouragement of innovation and entrepreneurship, to the extent that the Act permits, seems fundamental to the objective. Thus, we do not mean entrepreneurship, say, as applied in the context of opening a chain of miniature golf courses, but entrepreneurship in the celebrated examples of Route 128 near Boston, and the San Francisco Bay Area near Palo Alto and Berkeley, California, where many electronic and space-age industries have been spawned.

Innovation is, of course, that process which reduces invention to practice. The entrepreneur and the innovator are often one and the same, or at least a team that combines daring with imagination just as skillfully as better endowed teams apply financial resources and scientific intellect. These are the business starts out of which the *Fortune's* "500" of three decades hence are being

Mr. Grogan is director of the Office of State Technical Services, U.S. Department of Commerce, Washington, D. C. His paper was originally presented at the Government Information Services Committee meeting during SLA's 58th Annual Convention, New York City, May 30, 1967.

created today. These are the men President Johnson salutes when he says, "Research is good, but results are better."

Technology Transfer

Technology transfer is another catch phrase of our time. One is reminded of the comment of Mark Twain, "Everyone talks about the weather, but no one does anything about it." But not so today! And as with research on weather modification today, efforts also are under way to better understand technology transfer and, what is more, to do something about it. The secrets of both—weather control and technology transfer—are rational and exciting quests today.

The mechanisms by which technology is transferred are not clearly known. Opinion on the subject is offered more readily than agreement is obtained. Therefore, the process is difficult to improve upon when it is so little understood. In fact, disagreement on the subject often begins with the attempt to define the problem, let alone to begin to spell out needs, potentials, or methodology.

Technology transfer often takes place in such strange, obscure, and singular ways that its occurrence is difficult to predict or to discern. Transfers may remain hidden indefinitely or the accomplished fact of one may be discovered quite by accident where no effort had been exerted. Moreover, the value of any particular transfer and the happenstance by which it occurred are equally difficult to ascertain.

The whole field of endeavor is complicated by the fact that the minor events of technology transfer far outnumber the spectacular. But who is to say that the Band-Aid, children's aspirin, or sugarless gum are less important technological advances over the long term than the jet engine?

The unpredictable manner by which many technology transfers take place has led to frequent reference in this context to "serendipity," or the unconscious discovery of benefits where none were expected or quite a different objective was sought. The poet proclaimed, "Hope springs eternal," and it is a part of the American dream that motor hotels have become fashionable, that fifteen cent hamburgers sell by the billion, and that the household computer eventually becomes as commonplace as the bathtub, the telephone, and color TV, each in its day. These successes are easy to identify in the retelling. The real problem, however, is to identify today, or in the next several years, the spectacular successes that will dot the scene in 1975.

The gaining of insight about the factors that encourage technology transfer is difficult at best, but the importance of this phenomenon in our continued economic growth, full employment, and high prosperity merits continued effort to unravel its mysteries.

The large transfers of technology involving whole products or processes become caught up in corporate planning, finance, and proprietary interests. In fact, the current development of the supersonic transport affirms that the federal government becomes involved and that the competition, indeed, becomes international. The systems approach, developed by aerospace and defense contractors, is often cited as being the mechanism by which the large-scale needs of mankind, both technological and sociological, will be served in the future.

Concern About Lesser Ideas

But our purposes here are better served by concern about the lesser ideas, small products, widely practiced techniques, and the like, that must occur all around us in countless numbers and often remain unheralded. The greater impact upon the $25 to $30 billion increase in our annual gross national product has to be in terms of the smaller and commonly unnoticed transfers, which can be accelerated in a significant way only through a broadly based, national effort such as OSTS is honored to represent.

Thus, in summary, technical services serve a narrow, catalyzing role between sources of specialized information in a host of categories and the potential users of that information. How the recipient later uses that information for his personal benefit is neither an appropriate concern nor an anticipated service under programs sponsored by the provisions of the Act. Generalized instructional formats are valid services for industry-wide groups. On the other hand, individualized

or single-company formats of instructional service are inappropriate. Yet recommendations might be made on the basis of an individual company with respect to sources of information, available training programs and services, specialized consultative skills, and sources of expertise, as long as such recommendations remain objective and are similarly available to other inquirers.

A New and Rewarding Experiment

We are participants in a new and potentially rewarding experiment. Any program of this kind, starting with limited documentation and experience, is fraught with matters of interpretation as untested situations and unprecedented activities arise or are suggested as possibilities for implementation. The principle that guides us beyond outright respect for the law is the opportunity to "serve technically" in cooperation with each of the states and all of the companies and individuals who can be instrumental in building a stronger, more prosperous, and more competitive American enterprise. The objective is to acquire quickly and to apply fully and effectively the latest scientific management principles, the production and engineering know-how, and the scientific and technological discovery.

We have to get a lot of mileage out of each page of the world's new scientific literature if we are to meet the world's needs for the future on a person-by-person basis. While conditions vary relatively over the face of the earth, no one can afford to miss his opportunity to develop broadly and advance himself or his enterprise along the best possible lines. Through this total commitment of both human and document potentials, this finite resource which we call "earth" can be made to yield wealth beyond dreams, springing not from its ravaged and exhausted bowels, but springing from the unlimited and inexhaustable minds of men.

The State Technical Services Program at the State Level

H. F. HEINTZ

IN DEVELOPING CONNECTICUT'S first annual technical services program, it was necessary to probe beneath the surface of the state's economy to identify problem areas that could benefit from such programs. A superficial analysis of the state's economy would indicate an apparent lack of need for technical services programs. As an example, in 1965 and 1966 Connecticut ranked first of all the states in per capita income, as well as having the largest dollar volume of defense contracts per capita. The in-depth analysis of the state's economy revealed that problems that could inhibit Connecticut's future economic growth do exist. Let's take a look at a few of these problems and the programs that have been designed to minimize their adverse effect.

The economic analysis revealed that the state's non-electrical machinery group is lagging behind the national average in value added per man hour. In Connecticut, the machine tool industry and the office equipment industry are important segments of this broad industry grouping, and both have experienced a decline in employment between the years 1950 and 1962. Moreover, many of these industries are housed in structures that are antiquated. A review of labor records indicated a low ratio of graduate engineers to total employment and minimal participation on the part of employees from these industries in existing continuing education programs. The combination of these factors indicated that a technical services program should be developed to encourage the application of new technology and managerial techniques in the machine tool and the office equipment industries.

The University of Connecticut was encouraged to develop such a program. The program consists of the preparation of a case study of a representative company within the machine tool industry and of another within the office equipment industry. With the approval of company management, a multidisciplinary team of experts will visit a company to confer with management and engineering personnel in such matters as product development, technical personnel, manufacturing methods, materials handling, research and development, and other aspects of technological growth and market possibilities. A study team will consist of three to five persons acquainted with modern technological developments and production methods, including automation and computerized production control methods. A case study will be developed with emphasis on recommendations for improvement. This case study will serve as the basis of an industry-wide seminar so that the entire industry benefits from the study. Separate seminars will be conducted for the machine tool industry and the office equipment industry.

Noise was identified as another problem area. Connecticut is heavily engaged in manufacturing, particularly metalworking, with the generation of noise inherent in this industry. The factor, coupled with the population explosion and the growth of industry in suburban and rural areas, has generated a serious community noise problem. It has been established that noise has a deleterious effect on employee performance and his health, to say nothing of the adverse effect upon the adjacent community. Too often, manufacturing and test facilities have been constructed with no consideration of the noise problem. Moreover, there is a wide disparity in the working of codes and ordinances in Connecticut in the areas of noise control. Therefore, there is a need to train the business, industrial and governmental community in the latest technology for noise abatement and measurement.

The University of Hartford, with competence in acoustical engineering, was encour-

aged to develop a noise abatement workshop. The purpose of this workshop is to provide for segments of the Connecticut business, industrial and governmental community to gain a familiarity with techniques for identification and measurement of noises, as well as available engineering procedures for minimizing the annoying or hazardous components of the noise.

Referral System

Actually there are seven other projects included in Connecticut's first annual technical services program that were developed on the basis of similar rationale. In summary form, these projects consist of: *1)* the development, maintenance and operation of a central technical services referral system that involves the inventory, classification and location of Connecticut's dispersed technological and scientific resources, both human and physical; *2)* the establishment of a field liaison service; *3)* the conduct of seminars for research and engineering management; *4)* seminars on scientific decision making for managers of small businesses; *5)* management development courses for professional and technical personnel; *6)* continuing education short courses in metallurgy and electrical engineering where obsolescence is a factor; *7)* a series of short courses that convey the latest technological innovations in manufacturing methods, materials and processes.

The philosophy behind the development of the referral service program is that Connecticut is blessed with an abundance of creative scientific and technological human resources that are geographically dispersed throughout our relatively compact State. The program is directed at developing an inventory of these resources and classifying these resources by location and specialized fields of competence so that the state's business and industry has a central source to contact when they want to use these resources.

Connecticut is also blessed with an abundance of library resources in both the public and private sector, which similarly are dispersed throughout the state. Therefore, it appeared to be desirable to develop a mechanism that would integrate these resources so that the wealth of knowledge deposited therein could be exploited.

However, the Connecticut State Library, the Research Commission, a representative Library Research Advisory Committee, and the librarians themselves, were not certain that a need for a centralized Library Research Center existed. Nor were we able to determine the services which should be offered if such a facility were to be established. Nor did we have the in-house systems competence that is necessary to design such a facility.

Therefore, the Research Commission made an award of state funds to the Corporate Systems Center of United Aircraft Corporation for "A Study to Plan Development and Implementation of a Connecticut Library Research Center." The study was conducted for the Connecticut State Library and involved their cooperation and guidance. The first phase of the study has been completed and the conclusions are as follows:

1) A need exists for a Connecticut Library Research Center aimed at improving the speed and completeness in locating and making available the informational resources of the state.

2) The services which should be provided by the center include bibliographic searching, a document locating service with associated accessibility information, and centralized control, coordination, and dissemination of catalog data.

3) Additional service in the form of printed book catalogs and current awareness lists should be provided at least in the early phases of the system.

4) The present state-of-the-art in computer technology and communications make a system such as that proposed immediately feasible; developments expected in the next five years are likely to increase capability and reduce costs.

5) Assuming that funding is available to start implementation of the proposed system

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Mr. Heintz is assistant director of the Connecticut Research Commission; he is also administrator of the Connecticut State Technical Services programs. His paper was presented at SLA's 58th Annual Convention, New York, May 30, 1967.

in July 1967, the requirements for the first two years are:

	Annual Equipment Costs	*Personnel (Full-Time)*	
		Operation	*Implementation*
1967-68	$173,000	8	9
1968-69	$314,000	18	8

6) During the first two years of operation, an area of 7,000 square feet of air-conditioned space will be required.

7) During the Phase II period of operation, the annual cost is estimated at $1,010,000 with a personnel requirement for thirty full-time employees for system operation and fourteen for implementation, and a requirement for 10,000 square feet of air-conditioned space. These needs should apply in the year 1970-1971.

8) The attitude of enthusiasm and cooperation shown within the library community of Connecticut will enhance the probability of success in operating a system of the kind described.

In addition to the critical funding question, answers are required to such questions as, "Should such a facility be considered for implementation on a New England regional basis?" In conjunction with this question the Report of the Task Force Studying the Role of the States and the Office of State Technical Services in the National Information Dissemination and Retrieval System recommends that regional nodes be established as soon as possible. Another relevant unanswered question is, "How would such a facility be integrated into a national network?" It is planned to implement a pilot project utilizing existing communication equipment, under Connecticut's FY 1968 State Technical Services Program. This will permit us to acquire actual experience with a scaled down version of the system.

I believe that it is a propitious time to conduct an introductory course for the state's librarians in computer and graphic arts technology as related to library operations. Technological change can present problems or opportunities. If we are to capitalize on the opportunities offered by the inevitable technological changes that are forthcoming in library operations, it is essential that we anticipate such change and train our librarians accordingly. If we introduce the change without prior training of the personnel who are going to have to make the system work, we will merely generate confusion. At least this has been my experience with the introduction of new technology in industry.

Such a course could be designed to convey the technology that will be associated with the system proposed by the Corporate Systems Center of United Aircraft. Perhaps such a course could be conducted via Connecticut's Educational Television Network that reaches all of the state's major libraries.

New scientific and technological information is being generated at an unprecedented rate. If our new knowledge is to benefit mankind, it must be applied. If it is to be applied, it must be communicated. Libraries are an established communication resource. The State Technical Services Act is a mechanism that can be employed in developing, refining and exploiting these library resources. I believe the Act to be an appropriate mechanism. It is a grass-roots program developed on the state level—where the need, problems and resources exist. In effect, we have been given the technological and legislative tools to accomplish our mutual objectives. Our success will be dependent upon how effectively we use them.

State Technical Services activities as accomplished by the Technical Resources Center at Syracuse University, sponsored by the New York State Department of Commerce are described. Operating in the Upstate New York area, the center's program for determining and satisfying regional industrial and business needs for new scientific and technical information are described. Downtown offices provide involvement with smaller firms through a program of workshops and seminars. The use of professional societies, developing relations with the New York Reference and Research Resources Program, plus the use of certain area special libraries in providing reference service are described. Emphasis is on facilitating the rapid exchange of scientific and technical information with the goal of promoting economic development. Aspirations for establishing demonstration and pilot projects for the broader use of selected special library holdings are outlined.

The State Technical Services Program—An Interface With Industry

ROBERT LEVESQUE

MUCH OF THE MASS OF TECHNICAL information that has often been referred to in various presentations is available, in varying degrees, through a wide variety of sources. It is "available" providing that the prospective user has the training and determination to find, acquire and interpret it. The principal new services to be provided by the Technical Resources Center (TRC) at Syracuse, the name of our activities, are intended to make the technical information needed by specific industries and businesses more readily available at the place where the need exists. In the Upstate New York area, the Syracuse University Research Corporation on behalf of Syracuse University has agreed to develop those new services that, hopefully, will be of value to the technological community. We are obliged to put in place a full-time professional staff to accomplish a total program.

Mr. Levesque is director of Information Services Laboratory, Syracuse University Research Corporation. *His paper was originally presented at SLA's 58th Annual Convention, New York City, May 30.*

Inherent in our responsibilities is the determination of area industrial and business needs for new scientific and technical information, and this is no small task. To promote this we have located our offices in the business district in order to provide the industrial community with an easy point of access to university resources, and feel that this has been beneficial to the smaller firms that otherwise might not avail themselves of direct contact.

Early efforts have been aimed at defining roles and establishing working relationships with the technological community, and have stressed building the concept of government, education and business working as a team to solve regional technical information problems and have sought multiple institutional involvement in as many phases of the program as possible. One method we have used to establish relationships with the technical community has been via professional societies. Almost all the professional societies and associations in the Upstate area have made their closely restricted mailing lists available for our use. The TRC is informed that this is the first time the professional community has been so widely reached, and has prepared a listing of these societies with their current officers. We believe this is the only such source for this information on these key

decision makers in the Upstate New York area.

Seven Counties Involved

The Central New York State area which we serve primarily involves the Syracuse, Utica-Rome region, covering some seven counties with a population exceeding a million people. From the library perspective, there are about four million volumes roughly distributed—fifty-four per cent academic, thirty-eight per cent public, and eight per cent special. These are used in varying ways that will be mentioned later in the article.

TRC has in process a continuing general analysis and profiling of regional industry, based on a sampling of the broad categories of statistical product classification as designated by the federal and state commerce agencies. Median size has been used as a general basis for selection. We have identified and interviewed individuals who have central working responsibility for scientific and technical information, including discussion in some detail, to determine: *1)* areas of scientific and technical information currently important; *2)* major flows and media of information; *3)* professional societies represented in each industry and the part they play; *4)* user opinions as to the most productive role which the Technical Resources Center can play; *5)* the conscious need of users and potential users and their willingness to participate in activities such as serving on committees and sharing information with other establishments.

We also have a continuing process of discussions and contacts with relevant academic departments of Syracuse University and other sources of professional information and expertise in order to determine: *1)* the nature of their present involvement with regional industry and their awareness of the problems and work ways of industrial interest areas; *2)* their potential as information resources, with reference to such matters as time available, specialty skills, willingness to participate in the information process as workshop and seminar leaders, plus referral availability where consultant services are requested, and other aspects of their role in the center's mission.

From these and other activities there is emerging data which is of present and future value to us in developing and programming the mission and management of the center. Present indications are that the center's role will be largely a coordinating one, i.e., coordination between sources and users, and less of a static collection of printed materials.

Industries in our area tend to have all the information source characteristics common to the literature: trade journals, equipment suppliers, a research department and the "know-how" resident in the experience of long-term plant personnel. But few of the establishments in the region appear to have any calculated approach to innovations in their field beyond a careful observation of the competition and a receptive ear to supplier salesmen.

Federal and State Sources

In contrast and of necessity, the many documentary sources of printed information available from both federal and state governmental sources are usually prepared to serve a general technical audience; while academic and government scientists and engineers are usually concerned with the advanced and peripheral areas of their art. The two sources, federal and state, appear to be geared to a relevance frequently remote from the immediate concern of competitive industrial management, particularly at the small and median levels.

The existence of this gap is not a new observation, but appreciation of its breadth in the Central New York region has drawn us to the tentative conclusion that in order to bridge the gap, the center must develop the practice of tying together in a manageable information "package" the "live" interpreter of scientific and technical knowledge, plus archival resources applicable to a problem and, of course, the user, in a continuing interface. The package concept that the TRC is endeavoring to develop also serves to contain the stimulation of interest necessary as a pre-condition to innovation, the prompt, sometimes face-to-face, sometimes telephone solution to immediate problems, and printed information characterized by a maximum of currency and direct relevance. To satisfy

these requirements and yet keep the situation as live as possible, our working approach to implement this package concept is largely as follows: *1)* choice of a subject through coordination of user and source; *2)* establishment of relevant documentary sources with a collation in their archives classified by "problem," i.e., user-oriented. In addition to basic documents, "the package" contains recordings of information exchanges which precede or follow presentations, meetings of follow-up groups, clinics, telephone service calls made through our switchboard, and technical correspondence; *3)* presentations of the subject in workshop or seminar format by the person possessing the expertise; *4)* follow-up where indicated by publication, intra-industry sessions, mailings, and other communication channels.

We think that this approach gives us a continuing and developing relationship with our user-clientele, a manageable activity from the administrative point of view, a basis for self-evaluation, and a strategy for taking the initiative and exercising some control in areas for which active technical information communication is undeveloped.

In addition to giving guidance in core management matters of the Technical Resources Center, our preliminary field analysis and activities to date have led to the conclusion that, in addition to our primary assignment, there are a variety of special information situations in the region that we can also serve: smaller industries; those served by technical associations; those industries in the area which function with leased machinery; professional associations; large industrial divisions of the auto industry and the like. These large industrial divisions have a satellite system of small "job-shops," most of which are local and important to their production capacity and to the economy of the community. Along with other suppliers they, too, need to be kept informed of technological requirements, changes and improvements.

As noted, we have established working contacts with a sample of industry in the region from many of the major categories of manufacture according to the S.I.C. Code. These personally-interviewed individuals are continually proving useful to the State Technical Services program in a variety of ways. The idea of encouraging informal information exchange and thus indirectly promoting economic development is one the TRC is enthusiastic about, although it is difficult if not impossible to measure.

Formal Information Service

While we have distributed technical information on a regular basis primarily as a result of meetings, conferences and our referral service, efforts to establish a formal Information Dissemination Service based on the profiling of local industrial firms and the sale to them of a machine-based documentary service have been held somewhat in abeyance. We have been delayed in this effort by: *1)* an appreciation of the magnitude of sustained effort necessary to ensure that this would be a successful undertaking, and an appreciation of the need to develop a core audience with which to begin operations; *2)* a reduction in funds from those originally proposed, from what was and still is considered a "critical mass" necessary to establish such a service, either locally or statewide; *3)* concern over continuity of funding necessary to sustain such an effort without detrimental gaps of contract support; and *4)* the fact that accomplishing as much as we have to date has tended to completely occupy our capable but limited staff.

In other words, the TRC has chosen not to rush into any formal system, although I believe that some form of selective dissemination of technical information based upon well-catalogued sources employing simplified machine-based approaches with user controlled feedback is an eventual necessity if STS efforts to reach a broad segment of the business/industrial community over a wide geographic area are to be successful. But, these systems only make sense where STS or any other information program has had time to understand its clientele.

We are satisfied, though, that this general area of activity (formalized data dissemination in a computer format) was the best one to postpone without suffering diminution of service. There is a considerable accretion of knowledge and feel for user needs that have been developed, which will make possible a better informed entry into this costly form of information dissemination when the tim-

ing is right. We plan to continue doing our homework in this area with an eye towards a larger, perhaps regional, responsibility in the realm of technical reports, literature accumulations and distribution.

Institutional Contracts

The Department of Commerce of the State of New York has, via the State Technical Services office, contracted with some eighteen institutions in New York State to implement the Technical Services Act. These institutions have two major types of activities. Some have a state-wide responsibility for a subject coverage—for example, St. Lawrence University in the field of geology. Other institutions such as New York University have a selected emphasis on problems in the graphic arts and garment industry, because of their industrial and geographical concentration in the New York City area.

The responsibilities of the Technical Resources Center at Syracuse University for the seven counties it serves are: *1)* to establish and operate a technical information dissemination activity, sensitive to the business, commercial and industrial needs for scientific and engineering information; *2)* to design, develop and present a series of workshops and seminars likely to promote the economic well-being of the Central New York area through the transfer of selected technical knowledge; and *3)* to establish and operate a referral and reference service, based on user needs to lead local inquirers to sources of expert help on information on the technological problems of business.

The library-like part of our total program appears as part of the reference service and is designed: *1)* to determine the characteristics of the technical and business community, its library-like service needs and how they may best be served; *2)* to build a core reference collection in serving these needs without duplicating libraries already established; and *3)* to make it possible for the community to know and use these services by keeping them alerted to what the center and the university has to offer.

Thus, a primary concern early in TRC's activities was the establishment of working channels with libraries—public, private, special and academic. I hasten to point out that STS is not a library program; the framers of the basic legislation did not even mention libraries. But it does use the vast reservoir of technical materials available to us in New York. Naturally enough, these are housed in some academic and some special libraries and only in rare cases—because of the timely nature of the technically-oriented material—in public libraries.

Early in the year the TRC hosted a special conference internal to STS activities on the subject of library resources. Because each participating institution in New York has developed what are essentially individual programs adapted to the needs of its technical subject assignment or its regional area (as the case may be), the parallel and overlap between these individual programs was considered. The conference's greatest value may have been in the development of personal contacts among the operating personnel of the diverse participating institutions. While certainly not a new message to many special librarians, the difficult task of providing access to report literature of interest to the industrial and business community is one which also received attention.

In the May 1967 issue of the *Wilson Library Bulletin,* Keith Doms, of the Carnegie Library raised some interesting questions in an article entitled "Needed: A Fuller Knowledge of the User and the Nonuser," that have relevance to the STS program just as much as they do for libraries. Just as libraries today are beginning to question more intensively their role in society and to investigate their present functions and predict future needs, I believe the same can be said for the STS program. For example, with whom and in what manner (if at all) does the STS program compete in the information field? What kind of patrons need what kind of material? What are the different use patterns in different client and subject areas? We in Syracuse have been trying to get answers to these questions in a somewhat oblique manner—as a result, almost, of pursuing our contractual commitments. I submit they need some direct confrontations.

Also, the TRC is approaching its community and interface with industry responsibilities with a broad perspective. There are rather exciting and far-reaching programs develop-

ing in New York State in which we, from a Research Corporation point of view, have taken an active interest that may have implications worthy of consideration. One of these is the 3 R's (Reference and Research Resources) program launched in 1966 by the State Education Department, Division of Library Development.

The purpose of the 3 R's program is to provide improved access to advanced reference and research library materials to . . . serious library users including (among others) industrial and scientific researchers. The 3 R's program has a strong public and academic library flavor, but I think that may be tempered somewhat when ways are found to include in 3 R's the interests and active participation of special libraries which, until now, have been severely restricted as the result of limitations presently included in the enabling regulations.

As mentioned earlier, we find that a portion of our reference service activities call upon the special library resources in New York State. In effect we have occasion to use industrial and topical special libraries to accomplish STS purposes. This is good and proper in a regional development sense, and we are careful as to the quid-pro-quo. Much remains to be done, however, quite possibly as a demonstration project under the 3 R's program or as a Special Merit Project under STS or perhaps both, a demonstration project to promote a broader use of selected special library holdings. Our not-for-profit research corporation in Syracuse plays an interesting role here in marshalling the resources of special libraries, where appropriate, for broader use—with proper attention to the various motivations involved.

Specialized libraries have, for the most part, faced the problems of successful communication of technological information to the people who should have it. Even though the special libraries are one step closer to the user than the large public or university library, they do not generally serve the vast number of small establishments which are still outside the normal flow of scientific and technological information. Through seminars at the Technical Resources Center, about fifty industrial establishments in our major county have been served via their technological components; we have brought whatever benefits there are to more than eighty-five per cent of the industrially employed people.

But there are in that one county, according to latest figures available, about six hundred establishments, or about five hundred-fifty businesses which we did not reach. While these five hundred-fifty out of six hundred establishments represent only fifteen per cent of the total industrial employment, this may be the pay-off zone, that economic development programs try to influence.

Of the fifty we did reach, however, only a few have specialized libraries, and it is obvious to us from the requests we receive that, of those who have them, only a few find them totally adequate to all their needs. We are only beginning to face the problem and devise experimental ways of serving these many smaller establishments. We think ourselves to be one step closer to the core problem than even the specialized library.

Missing Participants

Although TRC has been able to exert some presumptive, if not yet precisely measurable, economic impact on the industrially employed in our area, there are two groups which, from the technological point of view, represent more of a problem. The first of these groups is the intensively specialized private research activities, very few in number, which are able to stay abreast of information in their specialties who will respond only to highly scientific and general innovative presentations. The other group is made up of the small in size, though large in number, establishments which have little or no continuing technical concerns or skills, but which are still classifiable as "industrial" establishments. We have not as yet found the formula which will attract participation from the very large number of small industrial establishments on a scale as broad as we desire. But, in any event, the indications are that our program will have to be ingenious and aggressive enough to reach the people who need to be brought into the action and for whom the STS Act was legislated.

Some comments about our reference service users may be in order here: They have come from both large and small industry in the fields of applied research. They are, for

the most part, graduate professionals or successful industrialists interested in data typically not in the easily accessible literature; their concerns are with topics and problems very current and certainly not more than a few years old. They tend to re-use the service, and when they do, ask increasingly difficult questions. This we find encouraging in a motivational sense. The time which can be allotted to an individual request varies from about two hours to a tentative maximum of eight hours. These time allotments are not rigid. Rather, they are guidelines until we have enough experience to determine workable limits or controls.

There has been a considerable concentration of subject interest in the metallurgical area; due to the fact that metals fabrication is a major activity in our territory. Other requests have covered such variant topics as epoxy glue manufacturers and nuclear reactor installations. The focus of the interest has been on applied problems of immediate usefulness to the inquirer.

To be timely and responsive, long distance telephone calls have been freely used to satisfy some requests. Photocopies of requested materials have been provided to date without charge; referrals to experts in the local area have been made possible through the technical society cooperation and the informal council mentioned earlier; reports have been prepared and bibliographies provided as needed. There is no charge for any of these reference services; the services are considered to be too new and experimental at present to have user fees; thus, fees have been suspended to date. We do, however, have a mandate to develop user fees for the future program support and have made nominal charges at our seminars. We provide in effect, a telephone/letter-to-desk service, typical of special library service to their sponsoring organizations, but applied to all of our STS geographic service area.

Perhaps it is reasonable to ask why these services are necessary. The truth seems to be that the general industrial audience is not well served by on-the-spot public-oriented library facilities. Except for a few colleges, universities, certain special libraries and a handful of public libraries, they tend to be neglected. The materials are organized, naturally enough, for other purposes as is the case with students and faculty researchers at academic institutions. Thus, non-university or non-special library users from the general public, if allowed near the materials at all, have considerable search and interpretation difficulties. We have tried to establish, among other things, a new network of industrial technical information assistance, not completely independent of existing arrangements, but using them properly and with resourcefulness. STS activities must deal with very timely information not usually available from the more generally accessible sources.

The TRC is satisfied, though, that people are major repositories of know-how and can help each other in solving common problems. We are endeavoring to maintain the "people-to-people" atmosphere that promotes innovation, as well as a sense of urgency. We are not a technical library. We will not stockpile archival material. In a phrase, the role of the Technical Resources Center at Syracuse University in implementing the State Technical Services program is to facilitate the rapid exchange of scientific and technical information, with the goal of promoting economic development.

Have You Heard . . .

Name Change for Philadelphia's Library for the Blind

The Library for the Blind of the Free Library of Philadelphia has officially changed its name to the Library for the Blind and Physically Handicapped, it was announced by Emerson Greenaway, director. According to Mr. Greenaway, federal funds have enabled the library to extend its services to physically handicapped persons who are unable to turn pages or hold a book for a reasonable length of time. These persons will benefit from the use of talking books and magnetic tapes. The library serves western and eastern Pennsylvania, West Virginia, and Delaware. It has more than 18,000 individual book titles available for circulation, with almost a thousand new titles added each year.

Pratt Institute Names Sass as VP

Dr. Louis D. Sass, dean of Pratt Institute's Graduate Library School, has been appointed acting vice president for academic affairs. He will continue as dean. A member of SLA since 1957, Dr. Sass earned his B.S. from the School of Library Service, Columbia University, and received his PH.D. in philosophy from Columbia in 1953.

R & D in Scientific Documentation

Herner and Company is compiling issue No. 15 of the National Science Foundation's publication, *Current R & D in Scientific Documentation*. The previous issue, CRDSD No. 14, reported 655 projects representing a total of 322 organizations in twenty-six countries, and contained six indexes. In order to ensure comprehensive coverage of the new issue, the company is eager to hear from all those engaged in research and development in scientific documentation, particularly those not represented in previous issues of the publication. A questionnaire will be sent upon request from: Project CRDSD No. 15, Herner and Company, 2431 K Street, N.W., Washington, D. C. 20037.

OOPS!

The December 1967 issue of **Special Libraries** incorrectly stated that the Medical Research Library of Brooklyn had a 3,000 volume collection. The correct figure is 300,000.

COMING EVENTS

THE FIRST NEW ENGLAND CHURCH AND SYNAGOGUE LIBRARY CONFERENCE will be held on April 25 at the Central Congregational Church, Providence, Rhode Island. The one-day meeting will be sponsored by the Graduate Library School of the University of Rhode Island, the Rhode Island Council of Churches, the Catholic Library Association of Rhode Island, and the Association of Jewish Libraries. The program will include speakers, workshops, and exhibits. All associated with or interested in church libraries are invited to attend. For particulars, write to Helen T. Geer, Associate Professor, Graduate Library School, University of Rhode Island, Promenade and Gaspee Streets, Providence, Rhode Island 02908.

THE CENTER FOR TECHNOLOGY AND ADMINISTRATION, the American University, in cooperation with the National Archives and Records Service, General Services Administration, the Library of Congress, and the Maryland Hall of Records, will hold the twenty-second institute: Introduction to Modern Archives Administration, June 3-14, at the National Archives Building, Washington, D. C. The program will consist of lectures and discussion by specialists of all phases of modern archives administration, and visits to the sponsors operating units. To enroll or to request further information, write Director, Center for Technology and Administration, The American University, 3900 Wisconsin Avenue, N.W., Washington, D. C. 20016.

MEMBERS IN THE NEWS

DR. RALPH BAKER, librarian for research and development in the American Viscose Division of FMC Corporation, has retired after twenty-eight years of service. He joined American Viscose in 1940, and became librarian in research and development in 1951. He holds two patents on the dyeing of man-made fibers.

GEORGE A. COLTON has been appointed chief, General Information and Circulation Department, The John Crerar Library. Mr. Colton comes to Crerar from the Lippincott Library, University of Pennsylvania, where he served as head of Reference and Circulation Services.

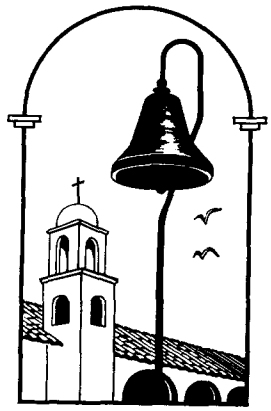
THE REV. JAMES JOSEPH KORTENDICK SS, head of the Department of Library Science at the Catholic University of America, has been named president-elect of the Association of American Library Schools. He will assume the presidency in January 1969. Father Kortendick has headed the Department of Library Science at Catholic University since 1947.

MURRAY ROGOFSKY, formerly chief librarian, Information Management Department, Vitro Laboratories, Silver Spring, Maryland, has been appointed special assistant for Technical Information Systems at the Naval Oceanographic Office, Suitland.

BILL M. WOODS became executive director of Engineering Index, Inc., effective March 11. Mr. Woods joined the organization in September 1967 as management planner.

In Memoriam

Monsignor Thomas James Shanahan, librarian and professor at St. Paul Seminary, St. Paul, Minnesota, died January 24. He had been librarian at the Seminary since 1931, and a member of the SLA Minnesota Chapter for twenty years, and its president in 1953-54. He was instructor of bibliography at the College of St. Catherine's Library School, assistant pastor at Blessed Sacrament Church, St. Paul, and was recently elected to the priests' senate of the Archdiocese of St. Paul-Minneapolis. Msgr. Shanahan contributed articles and book reviews to various Catholic publications, and was a joint translator of the Vatican Rules for the *Catalogue of Printed Books,* published by the ALA in 1948.



For Angelenos

A pre-publication notice of *Los Angeles, Portrait of an Extraordinary City* has just come to us from the publishers of *Sunset* magazine. It promises to be a spectacular book, largely devoted to photographic and pictorial description of the city. It includes a two page map of greater Los Angeles which is keyed to a directory listing of the principal sights and a history chronology and a glossary of Spanish names, both by W. W. Robinson. This may be ordered from Lane Magazine and Book Co., Menlo Park, California. (Pre-publication price $9.95, after June 30, $11.75)

Off the Press . . .

Index-Guide of New Drugs Research

Unlisted Drugs is preparing a computerized, world-wide Index-Guide of New Drugs Research Since 1949, which covers all new drugs described in its journal between 1949 and the end of 1967. The index will carry some 35,000 different items, which is said to give immediate and easy reference to manufacturer and country, a novel feature for *UD* indexes. It will also include a manufacturer address directory, an expanded international investigational drug code listing, and other editorial features of drug-information interest. Scheduled for distribution by February 15, the guide will be available at $75. Orders should be directed to *Unlisted Drugs*, Box 401, Chatham, New Jersey 07928.

Connecticut Union List of Serials

The Connecticut Valley Chapter of SLA has announced the publication of the *Union List of Serials in Connecticut Libraries,* now available through the letter "D". The serial holdings of over seventy special, academic, and public libraries in the state are revealed; many for the first time in any published listing. Data for the new list were gathered by the Chapter under the direction of Margaret Howland, who chaired the project committee. The publication is being issued in special form by Literature Service Associates, Bound Brook, New Jersey. Ordering information may be obtained from the publisher, or by inquiring of Mrs. Margaret Howland, Librarian, Main Library, University of Massachusetts, Amherst, Mass. 01002.

New Price for Insurance Literature

Effective February 1, prices of *Insurance Literature* will increase to $4.00 for one year, and $7.00 for two years. Missing copies will be replaced without charge for six months from the date of issue. After that period, there will be a charge of fifty cents each for photocopies. For replacement of missing issues, correspond with Marian G. Lechner, Librarian, Connecticut General Life Insurance Company, Hartford, Connecticut 06115.

Medical Bibliography

Medical Reference Works, 1679-1966, a selected bibliography of more than 2,700 titles has been published by the Medical Library Association. This international list, which was compiled by Dr. John B. Blake and Charles Roos of the National Library of Medicine, contains annotated entries, is arranged by over 50 medical specialities and related fields, and is indexed in detail. Price is $10 net. Order from the Medical Library Association, 919 North Michigan Avenue, Chicago, Illinois 60611.

Canada-U.S. Library Telecommunications Directory

The second edition of the *Canadian Library Telecommunications Network Directory* has been compiled and incorporated into the *Library Telecommunications Directory: Canada-United States.* The directory is published by the Library Mechanization Committee of the Canadian Library Association in collaboration with the Duke University Medical Center Library. It lists all libraries in Canada and the U.S. currently using Telex or TWX teletypewriter service. One copy will be supplied free to each library listed in the directory. Additional copies are available at $1 (payable to the Duke University Medical Center) from: David Skene Melvin, Chairman, CLA Library Mechanization Committee, Lake Erie Regional Library System, 305 Queens Avenue, London, Ontario, Canada.

Lockheed Computerized Information System

Computerized Information System at the Lockheed-Georgia Company, a division of Lockheed Aircraft Corporation, is the title of an article written by Charles K. Bauer, manager, Scientific and Technical Information Department, and C. David Rife, research information specialist, of the department, both of whom are members of SLA. Published in the June 1967 issue of *HLA Journal* of the Hawaii Library Association, the article covers such areas as why and when to computerize, factors which influence computerization, review of areas to be computerized, user services, and technical services.

(The SLA Annual Meeting—Continued from Page 182)

2) **Sustaining Membership.** On January 21, 1967 the Board of Directors approved a recommendation of a Special Committee of the Board (after approval by the Advisory Council) to establish Patrons and Sponsors of the Association; these two categories are *not* membership categories. On January 20, 1968 the Board approved the discontinuance of the Sustaining Member category to avoid conflicts with the concept of Patrons and Sponsors. The January 1968 action of the Board requires amendment of Article II, Section 1 and deletion of Article II, Section 6 of the Bylaws (and a re-numbering of Sections 7 and 8).

Proposed Bylaws	Present Bylaws
Article II, Section 1. The membership shall consist of Active, Associate, Affiliate, Student, Emeritus and Honorary members. Eligibility for and privileges of each class of membership shall be within the provisions of these Bylaws. The Association committee concerned with admissions shall be the authority on the eligibility of membership applicants.	Article II, Membership Section 1. The membership shall consist of Active, Associate, Affiliate, Student, **Sustaining,** Emeritus and Honorary Members. Eligibility for and privileges of each class of membership shall be within the provisions of these Bylaws. The Association committee concerned with admissions shall be the authority on the eligibility of membership applicants.
	Section 6. A Sustaining member shall be a firm, an organization or individual desiring to support the objectives and programs of the Association. A Sustaining member shall not have the right to vote or to hold office. With these exceptions, the privileges and benefits of this class of membership shall be determined by the Board of Directors.

BYLAWS COMMITTEE
J. Louise Markel, Madeleine J. Wilkins; Margaret L. Pflueger, *Chairman*

Proposed Changes in Dues

The two proposals will be voted upon separately. Approval by two-thirds of the voting members present at the Annual Meeting is required (Bylaws Article XII, Section 2).

1) On January 21, 1967 the Board of Directors approved an increase in the dues for Student members from $2 to $5 per year to be effective for the year 1969.
2) On May 30, 1967 the Board of Directors approved an amended recommendation of the Finance Committee that the dues for Active and Associate members be increased from $20 to $30 per year, and the dues for Affiliate members be increased from $15 to $30 per year to be effective for the year 1969; and that the sum prescribed for life dues for Active members be increased from $250 to $350 beginning January 1, 1969.

The Board reaffirmed this action at its meeting on January 20, 1968. No change is recommended in the dues rate for Emeritus members.

RECENT REFERENCES

Bibliographic Tools

ASTBURY, Ray. *Bibliography and Book Production.* (The Commonwealth and International Library, Library and Technical Information Division). Long Island City, N. Y.: Pergamon Press, 1967. xiv, 260 p. illus. $4.50, paper; $6, cloth. (L. C. 66-30623)

This book will serve as an introduction to current problems and trends in bibliographical organization and the book trade, with an outline of the main types of bibliographies and their uses. It should prove to be of use to practicing librarians, student librarians, all those who are interested in the communication of information and experience through books and related materials. Index.

BOWERS, Fredson, ed. *Studies in Bibliography; Papers of the Bibliographical Society of the University of Virginia,* vol. 20. Charlottesville, Va.: The University Press of Virginia, 1967. v, 298 p. illus., plates, tables. $10; $8, to members of the Bibliographical Society of the University of Virginia. (49-3353)

"The Greatest English Lyric?—A New Reading of Joe E. Skilmer's *Theresa,*" *"Tudor Roses* from John Tate" . . . in all 19 essays and "A Selective Check List of Bibliographical Scholarship for 1965" make up this annual volume.

CUNHA, George Daniel Martin. *Conservation of Library Materials, a Manual and Bibliography on the Care, Repair and Restoration of Library Materials.* Metuchen, N. J.: Scarecrow Press, 1967. ix, 405 p. illus. $10. (L. C. 67-12063)

This volume provides an introduction to the various facets of conservation as well as bibliographical data of permanent value. It is a manual of practical guidance for librarians, archivists, curators, conservators, restorationists and bookbinders. Annotated bibliography of over 2,000 international titles is included. Index.

DOWNS, Robert B. and JENKINS, Frances B., eds. *Bibliography Current State and Future Trends.* (Illinois Contributions to Librarianship no. 8). Urbana, Ill.: University of Illinois Press, 1967. vii, 611 p. tables, illus. $8.95. (L. C. 67-21851)

The material in this volume appeared originally in the January and April 1967 issues of *Library Trends.* Among the thirty-seven papers presented they deal with the current state, programs in progress, future prospects, and agencies involved in its particular area. Index.

FORD, Wyn K. *Music in England Before 1800: a Select Bibliography.* (Library Association Bibliographies, no. 7). London, The Library Association, 1967. xiv, 128 p. pap. 44s; 33s to LA members.

The subject covered is music and music-making in England, by both native and foreign musicians, up to the year 1800. It includes works on the theory of music, but it does not attempt to deal with the activities of English musicians abroad. The biblography is arranged in two parts: Part I is in two main sections; literature dealing more generally with certain specified subject fields, and this is followed by material arranged by period. Part II is confined to literature devoted to individuals and their works. Indexes.

LITERARY AND LIBRARY PRIZES, 6th ed., rev. and enlarged by Olga S. Weber. New York: R. R. Bowker Co., 1967. vi, 340 p. $9.95, U.S. and Canada; outside $10.95. (L. C. 59-11370)

Introduced in this revised edition, the first since 1963, are 72 new prizes. The prizes, grants and the fellowships are classified in general, publishers', library, juvenile, drama and short story categories, with special sections on international citations and on Canadian and British prizes. The volume's index is arranged by award, author and donor, and lists both current and discontinued prizes.

MOORE, John Hammond. *Research Materials in South Carolina,* a Guide, Compiled and Edited for the South Carolina State Library Board, with the Cooperation of the South Carolina Library Association. Columbia, S. C.: University of South Carolina Press, 1967. xiv, 346 p. $5.95. (L. C. 67-25916)

The information contained here was gathered during the years from 1963 to 1965, and it is the first attempt to examine South Carolina's libraries, magazines, newspapers, historical societies, and museums in a way that will quickly show what one may expect to find on the shelves or in the files of a given institution. Alphabetic list of periodical titles. Index.

Cataloging and Classification

CUNNINGHAM, Eileen R. *Classification for Medical Literature;* 5th ed. revised and enlarged by Eleanor G. Steinke and Mary Louise Gladish. Nashville, Tenn.: Vanderbilt University Press, 1967. xxiv, 267 p. $6. (L. C. 67-17562)

This new edition has a 6,800-entry index, and is planned for easy expansion in the future to cover new theories and discoveries without necessitating the reclassification of previously catalogued material. It has been thoroughly revised and enlarged to meet advances in modern medicine and medical terminology which have occurred since the fourth edition appeared in 1955. Index.

Dictionaries

GRANT, Parks. *Handbook of Music Terms.* Metuchen, N. J.: The Scarecrow Press, 1967. 476 p. illus. $16.50. (L. C. 67-10187)

(Dictionaries—Continued)

This dictionary of music lists more than 250 words which are not found in any other music dictionary, many of them are words in everyday use. Some distinctive features are: definitions are followed by synonyms and antonyms, where appropriate; pronunciations and variant spellings are indicated, foreign equivalents for the names of instruments are supplied.

SCHWEITZER, Frederick M. and WEDECK, Harry E., eds. *Dictionary of the Renaissance.* New York: Philosophical Library, 1967. xxii, 646 p. $15. (L. C. 64-20429)

The dictionary is an historical reference work for students of the Renaissance conceived as a great cultural and intellectual age; the great bulk of the entries is given over to biographical sketches of artists, humanists, philosophers, etc., and to characterizations of their works or achievement. The compilers have added a considerable amount of material on leading political and military figures and events, social evolution, the history of the principal Italian cities, etc.

SIMONDS, Herbert R. and CHURCH, James M., eds. *The Encyclopedia of Basic Materials for Plastics.* New York: Reinhold Publishing Corporation, 1967. viii, 500 p. illus., tables. $25. (L. C. 67-26047)

This encyclopedic guide furnishes condensed, fundamental information on approximately 1,000 chemicals employed as the raw materials of modern plastics technology. The articles are arranged alphabetically in the customary encyclopedic order. Pertinent references are placed as footnotes. Index.

TODD, Alva C., ed. *Encyclopedia of Electronics Components,* Written under the Direction of the Publications Division. Chicago: Allied Radio, 100 N. Western Ave., 1967. 111 p. illus. pap. $1. (L. C. 67-24758)

New encyclopedia alphabetically lists, describes and illustrates the basic components currently in use. The book provides in one reading an understanding of individual units used in electronics devices and systems.

WALSH, S. Padraig, comp. *General Encyclopedias in Print, a Comparative Analysis.* New York & London: R. R. Bowker Company, 1967. 96 p. pap. $3, U.S. and Canada; $3.30, elsewhere; ⅓ off on 5 or more copies. (L. C. 63-24124)

New fifth edition, the 1967 issue describes 33 non-specialized encyclopedias published in the United States and retailing for $25 or more. Each set is examined for breadth and currency of subject coverage, accuracy in content, authority of contributors and style of presentation. Special feature indicates 16 encyclopedias which do not meet the standards, and 17 that do, this appears in the consensus of opinion rating chart. Title index.

WILLIAMS, Roger J. and LANSFORD, Edwin M., Jr., eds. *The Encyclopedia of Biochemistry.* New York: Reinhold Publishing Corporation, 1967. xvii, 876 p. illus., tables. $25. (L. C. 67-15466)

The encyclopedia presents more than 800 articles by 365 contributors, covering a broad range of topics in the rapidly developing field of biochemistry. It should prove of value to industrial organizations operating in such areas as alcoholic beverages, fermentation, biologicals, fertilizers, foods, pharmaceuticals, sugar, fats, and oils.

Directories

AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES, comp. *Directory of Bioscience Departments in the United States and Canada,* compiled under the direction of J. David Lockard. New York: Reinhold Publishing Corporation, 1967. xvi, 672 p. pap. $8.50. (L. C. 67-30533)

All academic institutions accredited by the Federation of Regional Accrediting Commissions of Higher Education (February 1967 Directory) have been canvassed for their inclusion in the Directory. Responding institutions covers 1,846 bioscience departments in 1,112 colleges and universities. Field stations and laboratories associated with academic institutions and an additional 300 non-degree granting institutions have been listed.

GILBERT, Dorothy B., ed. *American Art Directory,* vol. 43. New York: R. R. Bowker Company, 1967. xliii, 508 p. $22.50, U.S. & Canada; $24.75, elsewhere. ($20 to members of the American Federation of Arts) (L. C. 99-1016)

The 1967 edition lists the administrators and describes the activities of more than 1,900 museums, art organizations, art schools, and libraries with important art book collections in the U.S. and Canada. Index.

KOLTAY, Emery, ed. *Irregular Serials & Annuals: An International Directory,* a Classified Guide to Current Foreign and Domestic Serials, Excepting Periodicals Issued more Frequently than Once a Year, 1st ed. New York: R. R. Bowker Company, 1967. xxviii, 668 p. $25.25, U.S. & Canada; $27.75, elsewhere. (L. C. 67-25026)

This directory covers some 14,500 of the most recent and important publications in a field which heretofore has constituted a bibliographically confused area between books and periodicals because of special characteristics and frequency. Key to subjects, Cross index to subjects, Title and subject index, Title grouping of international meetings' publications.

LEWIS, Marianna, ed. *The Foundation Directory,* Edition 3, Prepared by The Foundation Library Center, Analytical Introduction by F. Emerson Andrews. New York: Russell Sage Foundation, 1967. 1198 p. tables, charts. $12. (L. C. 60-13807)

Edition 3 is essentially a new book, and includes 6,803 foundations with combined assets totaling more than $19.9 billion and grants for the latest year of record of about $1.2 billion. For each foun-

dation the entry includes, so far as available, the corporate name and address; date and form of organization; the name of donor or donors; the general purpose and activities, etc. Three indices: foundations classified by fields of interest, a list of trustees and officers, and an alphabetical list of foundations.

LIBRARY OF CONGRESS. NATIONAL REFERRAL CENTER FOR SCIENCE AND TECHNOLOGY. *A Directory of Information Resources in the United States: Federal Government,* with a Supplement of Government-Sponsored Information Resources. Washington, D. C.: 1967. vii, 411 p. pap. $2.75. (L. C. 67-60084) (Available from Superintendent of Documents, Government Printing Office, Washington, D. C.)

More than 1,600 resources are included in this new publication. The directory describes the areas of interest, the holdings, the publications, and the information services of the various agencies, offices, libraries, committees, commissions, boards, and other organizations listed. Organization and subject index.

NATIONAL CLEARINGHOUSE FOR SMOKING AND HEALTH. *Directory of on-Going Research in Smoking and Health,* compiled by: Herner and Company, Washington, D. C. (Public Health Service Publication, no. 1665). Arlington, Va.: U. S. Department of Health, Education, and Welfare, 1967. 221 p. pap. $1.25. (For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.)

The Directory lists 336 projects with descriptions of research in such diverse fields as chemistry, biology, psychology, sociology, plant genetics and education.

STEINER-PRAG, Eleanor F., comp. *American Book Trade Directory,* 18th ed. 1967-68, Lists of Publishers and Booksellers. New York & London: R. R. Bowker Company, 1967. x, 828 p. $25, U.S. and Canada; $27.50, elsewhere. (L. C. 15-23627)

The directory's arrangement has been changed with this edition in order to facilitate the use of all its parts, especially the lists of varied general book trade information. Section I contains lists of dealers in foreign books, exporters and importers and rental library chains. Section II is a list of 3,853 book publishers in the United States. Section III covers 9,728 retail outlets in 2,894 cities and towns in the United States and regions administered by the U.S. Section IV, new as a separate section of this edition, consists of lists of 932 wholesalers and distributors of both paperbacks and hardbound books. Section V covers the book trade of Great Britain, Ireland, and Canada.

U.S. NEGRO WORLD. *1967 Negro Press Edition,* 1967 Directory of U.S. Negro Newspapers, Magazines & Periodicals in 42 States, The Negro Press Past, Present & Future; A Documentary Research Report 1827-1967 by Thelma Thurston Gorham. (vol. 7.) New York: 79 Wall St., 1967. 40 p. pap. $5.

The Directory section lists 231 publications in 42 states, Canada and Panama with zip-coded addresses and circulation data. The documentary research report traces the development of Negro publications from 1827, when the first Negro newspaper in America was published, to the present.

WECKSLER, Sally, comp. & ed. *Publishers' World 67/68,* a Yearbook for Publishers, Booksellers, Librarians. New York and London: R. R. Bowker Company, 1967. 377 p. maps. tables, ports., illus. $15, U.S. and Canada; $16.50, elsewhere. (L. C. 65-22431)

The third edition has a geographical directory of more than 4,000 publishers and import-export book dealers. Articles from book trade specialists all over the world, publishing in specific marketing areas and chart of trade customs enables publishers and foreign book dealers to check data about book tariffs, taxes, royalty payments, etc. Calendar of book trade events, listing of international literary prizes and glossary of publishing terms in five languages.

Information Handling Techniques

HEALY, Jeremiah J. and DEBRUZZI, Dalward J. *Basic Fortran IV Programming* Self-Instructional Manual and Text, Editors: Charles R. Bauer and Anthony P. Peluso. Reading, Mass.: Addison-Wesley Publishing Company, 1968. 264 p. charts, illus. pap. $4.95.

Written for the beginner who has little or no knowledge of computers, this book introduces the reader to the capabilities of the computer and to computer programming. Sample programs, complete with flow charts, coding and output are presented to be used as guides. List of reserved words and the solutions to the exercises and tests in Section II are presented.

JONES, Robert G. *Syllabus for a Course in Human Communication.* (Curriculum for the Information Sciences, Report no. 10, NSF-GE-2569.) Bethlehem, Pa.: Center for the Information Sciences, Lehigh University, 1967. 29 p. pap. Apply.

This project supported by the National Science Foundation, Washington, D. C., under Grant No. GE-2569. The purpose of the course described in the syllabus is to cover the rather amorphous range of topics which seem appropriate to human communication as a special field of study. It is divided into sixteen sections: two under technical problems, six under semantic problems, and eight under pragmatic problems.

LADENSON, Alex, ed. *American Library Laws,* 3d ed., Second Supplement, 1965-1966. Chicago: American Library Association, 1967. v-vii, 267 p. $6. (L. C. 64-25224)

The second supplement to the third edition of *American Library Laws* keeps this compilation of library legislation current with laws added, amended, or repealed between January 1, 1965 and December 31, 1966. Similar in scope and arrangement to the third edition and earlier supplement, this supplement is designed for use with them to determine laws added, amended, or repealed since December 31, 1964, cutoff date of the first supplement. Index.

TAYLOR, Robert S., *Final Report on Curriculum Development in the Information Sciences: Recommended Courses and Curricula.* (Curriculum for the Information Sciences, Report no. 12, NSF-GE-2569.) Bethlehem, Pa.: Center for the Information Sciences, Lehigh University, 1967. 48 p. pap. Apply.

This project supported by the National Science Foundation, Washington, D. C., under Grant No. GE-2569. This report is a synthesis of the work and thought of the past four years. It presents an ordered array of courses in five general areas. The content of these courses are felt to be basic to curricula in information science and technology. Bibliography.

———, *Question-Negotiation and Information-Seeking in Libraries.* (Studies in the Man-System Interface in Libraries, Report no. 3, AF-AFOSR-724-66.) Bethlehem, Pa.: Center for the Information Sciences, Lehigh University, 1967. 99 p. illus., table, charts. pap. Apply.

The work reported here was supported by grant from the Air Force Office of Aerospace Research, AF-AFOSR-724-66. This report is a study of two types of the process of question-negotiation in libraries and information centers. Four such reports, including systems charts, are shown in the appendices.

Proceedings

SHAW, Robert J., ed. *Libraries Building for the Future,* Proceedings of the Library Buildings Institute and the Alta Workshop Conducted at Detroit, Michigan, July 1-3, 1965, Sponsored by the Library Administration Division and the American Library Trustee Association of American Library Association. Chicago, Ill.: American Library Association, 1967. 208 p. illus., plans. pap. $4.50. (L. C. 67-23001)

This report includes the texts of all available papers given at the institute and workshop, as well as the presentations of the panelists and the discussions that ensued between members of the audience and the program speakers.

Reference

MALINOWSKY, Harold Robert. *Science and Engineering Reference Sources,* a Guide for Students and Librarians. (Library Science Text Series.) Rochester, N. Y.: Libraries Unlimited, Inc., 1967. 213 p. $5. (L. C. 67-20764)

This textbook is intended to be a guide to sources of information in the science and engineering fields designed for use in science literature courses. 435 titles are annotated in nine areas. Every title is numbered for quick reference; the author-title index refers to each entry by number. The table of contents is arranged to serve as a subject index to the titles listed. A selective bibliography of readings is provided.

Miscellaneous

Bookbinding in America, three Essays, Early American Bookbinding by Hand, by Hannah Dustin French; The Rise of American Edition Binding, by Joseph W. Rogers; On the Rebinding of Old Books, by Hellmut Lehmann-Haupt, Editor. New York: R. R. Bowker Company, 1967. xix, 293 p. illus. $10, U.S. and Canada; $11, elsewhere. (L. C. 67-13796)

A re-issue, first published in 1941, the book is brought up-to-date with supplements reporting new developments and listing new publications in the field. Index.

CENTRAL INSTITUTE FOR TECHNICAL DOCUMENTATION. *Abstracts of Romanian Technical Literature,* vol. 1, no. 1, January-March 1967. Bucharest, Romania: 1967. 106 p. pap. Apply.

Publications listed under subject headings, Romanian titles and then translated into English. Gives name of magazine, volume, number, month, paging, collation. Description of articles in English.

Guide to Grants, Loans, and Other Types of Government Assistance Available to Students and Educational Institutions. Washington, D. C.: Public Affairs Press, 1967. 92 p. pap. Apply. (67-27681)

A comprehensive guide to the various types of government assistance available to college and graduate students as well as to educational institutions of higher learning. Based upon a report prepared by the Legislative Reference Service of the Library of Congress for the House Subcommittee on Science, Research, and Development.

NATIONAL SCIENCE FOUNDATION. *Basic Research, Applied Research, and Development in Industry, 1965,* a Final Report on a Survey of R&D Funds, 1965, and R&D Scientists and Engineers, Jan. 1966. (Surveys of Science Resources Series, NSF 67-12) Washington, D. C.: 1967. v, 128 p. illus., map, tables. pap. 65¢. (For sale by Superintendent of Documents, U.S. Government Printing Office)

This report presents the results of the 1965 survey of industrial research and development, the eleventh in this series. The report was prepared in the foundation's office of economic and manpower studies. Data obtained in this survey were collected and compiled by the Bureau of the Census.

———. *Federal Support for Academic Science and Other Educational Activities in Universities and*

Colleges Fiscal Years 1963-66. (NSF 67-14.) Washington, D. C.: 1967. vii, 137 p. tables, charts. pap. 70¢. (For sale by Superintendent of Documents, U.S. Government Printing Office)

Second report compiled for the Federal Council for Science and Technology's Committee on Academic Science and Engineering (CASE). Covers fiscal years 1963-66, some of the data update and modify those contained in the report for fiscal year 1965. Technical Notes, Statistical Tables, Alphabetical list of Universities and Colleges receiving largest amounts of Federal obligations in total, academic science, or R. & D. funds.

———. *Geographic Distribution of Federal Funds for Research and Development, Fiscal Year 1965.* (Surveys of Science Resources Series, NSF-67-8.) Washington, D. C.: 1967. xi, 188 p. tables. pap. $1. (Order from Superintendent of Documents, U.S. Government Printing Office)

The report shows the kinds of activities supported and the types of performers doing work in each state and geographic division. It also relates this dispersal of federal funds by level of support. Extensive statistical tables.

———. *Nonconventional Scientific and Technical Information Systems in Current Use.* (NSF 66-24, no. 4.) Washington, D. C.: 1966. xxx, 558 p. pap. $1.75. (For sale by Superintendent of Documents, U.S. Government Printing Office)

This is the fourth in a series of compendia on nonconventional scientific and technical information systems in current use. The series is compiled by the Office of Science Information Service of the National Science Foundation; this issue was prepared with the contractual assistance of Herner and Company. Index of geographical locations. Alphabetic subject index.

National Library Week—1968

April 21 to 27, 1968

tions. Apply to: Oregon State Library, Salem, Oregon 97310.

CATALOGERS with experience sought for growing department. New building, expanded operations planned. Faculty rank, normal benefits, salary to $8,000 dependent upon qualifications. Fifth year library degree, language facility required. Two positions available July 1. Contact Dean of Library Service, University of Montana, Missoula, Montana 59801. Tel: 406-243-2053.

CATALOGER—For Arts Reference Library, Detroit Institute of Arts. Library Science Degree and familiarity with art and foreign languages required. Generous fringes including paid Blue Cross-Blue Shield, sick leave, etc. Salary $7021-$8441. Apply Detroit Civil Service Commission, 612 City-County Building, Detroit, Michigan 48226.

CHIEF OF PROCESSING—Responsible for overall planning and implementation of policy for the operation and improvement of the Library's technical services. Develops and applies automation theory and equipment to acquisitions, cataloging and processing. Bachelor's degree; completion of an ALA accredited graduate program; eight years experience including five in processing or related; some training or knowledge in data processing. Salary: $11,740—$14,178. For details please write Milwaukee City Service Commission, 200 E. Wells St., Milwaukee, Wisconsin 53202. We have always been an equal opportunity employer.

DEPUTY DIRECTORS, Library Technical Services Center. Association of New York State Libraries for Technical Services is seeking two Deputy Directors to participate in a pilot project for at least two years to determine the feasibility of establishing a Cataloging and Acquisitions Center to serve all public libraries in New York State. One deputy will be responsible for the acquisition, classification, cataloging and processing of books and other materials. The other deputy will be responsible for planning, installation and operation of data processing and other mechanical equipment. Both deputies will participate in policy determination and implementation, development of procedures, selection and training of personnel. Requirements for Library Technical Services Deputy are a baccalaureate and a fifth year library science degree, a minimum of six years of library experience including at least three years as administrateor of technical processes in a large library, library system or commercial firm. Knowledge of and interest in data processing as applied to book preparation are desirable. Requirements for Data Processing Deputy are a baccalaureate, a minimum of eight years in the computer field including at least two years as manager of a large-scale computer center involving supervision of both a systems analyst and programming staff. Salary for each position: $15,-200-$17,000. Excellent fringe benefits. Location in Nassau County. Write Box C-73.

FINE ARTS COORDINATOR—Responsible for collections in art, art history, sculpture, decorative and graphic arts, city planning, architecture, landscape architecture, and recreation; and administration of music collection and services. Bachelor's degree and completion of an ALA accredited graduate program plus seven years experience (or substitute Master's for 2 years). Salary: $11,740—$14,178. For details please write Milwaukee City Service Commission, 200 E. Wells St., Milwaukee, Wisconsin 53202. We have always been an equal opportunity employer.

HEAD SCIENCES LIBRARIAN—Simon Fraser University Library. Applications are invited for candidates with a good university science degree, preferably in chemistry, physics or mathematics. Professional qualification in librarianship is essential. At least ten years' experience in scientific work is required, some of which is at the supervisory level. Candidates must have appreciation of, and, ideally, some practical experience with, automated information retrieval systems. Automated circulation and acquisitions systems now operational. One month vacation; superior retirement, medical and other benefits. Salary $12,000 to start. Transportation grant of $1,000. Required between April 1 and August 1, 1968. Apply to: University Librarian, Simon Fraser University Library, Burnaby 2, British Columbia, Canada.

HEAD TECHNICAL SERVICES—$12,000-$15,000. An expanding library facility located in suburban Boston seeks the services of an experienced librarian to manage TECHNICAL PROCESSING SERVICES. A Master's degree in Library Science, or equivalent plus several years experience in DIVERSIFIED ACQUISITIONS, CATALOGING, etc., to include BOOKS, REPORTS, JOURNALS, etc. Computer based system in operation (EDP knowledge not required). Excellent fringe benefits. Write to Mr. A. G. Howes, c/o PERSPECTIVE, Ten Kearney Road, Needham Heights, Mass. 02194.

LIBRARIAN OPPORTUNITIES—OREGON STATE LIBRARY—Responsible positions await qualified individuals at the Oregon State Library! Holders of the MSLS degree with professional abilities to dedicate to state public service should consider locating in Salem. The State Library offers a pleasant, spacious work life in Oregon's capital city, adjacent to Portland metropolitan attractions. A moderate climate with readily available recreation, indoor and outdooor, make family living in Oregon an active and wholesome experience. ASSISTANT DIRECTOR, TECHNICAL SERVICES DIVISION—*Librarian 5.* Primarily responsible for Documents/Serials Section. Builds documents collection and does consultant work with Oregon depository libraries. Salary range $9,120-$10,980, depending on qualifications. CATALOGERS—*Librarian 4.* Supervises cataloging of documents, including some actual cataloging of federal and state documents. Responsible for the work of two other librarians and two clerk-typists. Salary range $8,400-$10,-140. *Librarian 2.* Primarily involves cataloging of documents. Salary range $7,050-$8,580. Send applications to: Oregon State Library, Salem, Oregon 97310.

SCIENCE BIBLIOGRAPHER—Position available July 1, 1968, to provide general liaison between the University Library and the sciences, mathematics,

and statistics departments; exercise overall review of their book selection; develop answers to complex reference questions; and perform literature searches on request. Position requires undergraduate major in a physical or biological science, or several years successful experience in research or manipulation of scientific data, and a master's degree in Library Science. Salary open, fringes excellent. Send résumé to Rupert C. Woodward, Director of Libraries, George Washington University, Washington, D. C. 20006.

SCIENCE LIBRARIAN—To assist in formulation of Science Division, coordinate selection and build collection, effect liaison with science faculties. New building, expanded operation planned. Faculty rank, normal benefits. Rank and salary dependent upon and commensurate with candidate's qualification. Fifth year library degree, language facility, reference or administrative experience, relevant science background or experience required. Position available July 1: Contact Dean of Library Service, University of Montana, Missoula, Montana 59801. Tel. 406-243-2053.

SENIOR LIBRARIAN—Buffalo and Erie County Historical Society—The library is a major function of the Society. It has 45,000 volumes specializing in western New York history. The Senior Librarian is the head reference person and personally handles telephone, mail, and patron requests. Supervises two staff members and several part-time assistants. Oversees cataloging, vertical file, special indexes and catalogs, and special and continuing library projects. Responsible for new book selection, rebinding program, and newspaper microfilming program. Works closely with other sections of the Society. Requirements: B.S. in library science with minor in American history or other social science; two years experience. Salary: $7200 plus liberal fringe benefits. Write to: Walter S. Dunn, Jr., Director, Buffalo and Erie County Historical Society, 25 Nottingham Court, Buffalo, New York 14216.

SERIALS LIBRARIAN—Experienced. To advance to top managerial position with leading antiquarian periodical house. Should know periodical values. Will train right person if necessary. Excellent opportunity and benefits. Replies treated in confidence. Write: Box C-71.

TECHNICAL LIBRARIAN—Atlas Chemical Industries, Pasadena, is seeking a Technical Librarian who will be responsible for extensive collection of documents, patents, etc. Will participate in setting up a company-wide automated current awareness and information retrieval system, which is being developed, with prime responsibility for indexing vocabulary, and supervision of 2 library assistants. Graduate of accredited library science school. Background in pharmacology, medicine or biological sciences. Previous experience in technical collection, development of thesaurus, knowledge of automated library techniques, some foreign languages desirable. Excellent fringe benefits. Salary: $8,700 min. Send résumé in confidence to: Robert Moore, Atlas Chemical Industries, 3360 East Foothill Boulevard, Pasadena, California 91109.

POSITIONS WANTED

ITINERANT CATALOGUER—Backlogs discharged; L.C., N.L.M. classification and subject headings; French, German, Italian. Especially interested overseas position. Write: 4-B, 5207 York Road, Baltimore, Maryland 21212. Tel. 301-323-6523.

LIBRARIAN—35, MS geology, proficient in all major European languages. Experience in running a library, Russian-English translation, spectrochemical research. Would welcome combination-offer involving part-time library work, part-time scientific work, but will consider other offers. Write Box C-75.

WOMAN, MALS, April 1968, desires position in medical or other type special library. Prefer Pasadena, Hollywood, or Los Angeles area. Over one year experience psychiatric library. Available May 1. Write: Box C-74.

FOR SALE

BACK ISSUE PERIODICALS—Scientific, Technical, Medical and Liberal Arts. Please submit want lists and lists of materials for sale or exchange. Prompt replies assured. G. H. Arrow Co., 4th & Brown Sts., Philadelphia, Pa. 19123.

CHEMICAL ABSTRACTS—vols. 34 (1940)—56 (1962), bound. Two books missing—vol. 39; part 3 and vol. 51; Subject Index A to I. Good condition. Price $600. K. Birula, 12430 Elmwood Avenue, Cleveland, Ohio 44111.

FOREIGN BOOKS and periodicals. Specialty: Building Collections. Albert J. Phiebig, Box 352, White Plains, N. Y. 10602.

LIBRARIANS: I buy and sell scientific and scholarly back-issues. Please submit your want lists and lists of duplicate materials you wish to sell or exchange. Prompt estimates. Fred. Ludwig, 5320 North Campbell Avenue, Tucson, Arizona 85718.

QUICK TRANSLATION—German and French technical articles, patents, letters, etc. translated by Ph.D. chemist (minor in physics). Quick service, confidential, very neat work. $1 per hundred words, typewritten in duplicate. B. Farah, P.O. Box 21, Townline, New York.

1968 CHECKLIST OF "LOOK-IN-FIRST" REFERENCE BOOKS PUBLISHED BY GALE

Acronyms and Initialisms Dictionary: *Guide to Alphabetic Designations, Acronyms, Initialisms, and Similar Condensed Appellations.* 2nd ed. Ed. by Robert C. Thomas. 1966. 767 p. $15.00
Cited in *Library Journal* list of "Reference Books of 1965.")

Biographical Dictionaries and Related Works: *An International Bibliography.* Ed. by Robert B. Slocum. 1967. 1,056 p. $20.00
Cites, with annotations, 5,600 who's who's, bio-bibliographies, biographical indexes, dictionaries, etc., published since 1500 in 108 countries.

Book Review Index. Ed. by Mildred Schlientz. $24.00 per year
Published monthly, BRI annually indexes over 105,000 reviews of 51,000 titles. (In *Library Journal* list of "Reference Books of 1965.")

Book Review Index. 1965 Cumulation. Hard bound. 606 p. $15.00
Book Review Index. 1966 Cumulation. Hard bound. 592 p. $15.00

Bookman's Price Index. Ed. by Daniel F. McGrath. $32.50 per vol.
Volume I. 1965. 2,009 p. 32,000 book entries; 28,000 periodical entries.
Volume II. 1967. 1,302 p. 66,000 book entries.
Gives edition, condition, binding, price, etc., of 126,000 rare and out-of-print books and periodicals.

Code Names Dictionary: *A Guide to Code Names, Slang, Nicknames, Journalese, and Similar Terms.* Ed. by Frederick G. Ruffner, Jr., and Robert C. Thomas. 1963. 555 p. $15.00
(Cited in *Library Journal* list of "Reference Books of 1963.")

Contemporary Authors. Ed. by James M. Ethridge, Barbara Kopala, and Carolyn Riley. 1962-. Published semiannually. About 2,000 entries per volume. Cumulative index. $25.00 per year
Approximately 17,000 unduplicated sketches in print. ("For all libraries."—*Library Journal.*)

Directory of Special Libraries and Information Centers—Volume 1. 2nd ed. Ed. by Anthony T. Kruzas. 1968. 1,048 p. $28.50
Updates information on more than 13,000 special libraries, information centers, and documentation centers. (1st ed. cited in *Library Journal* list of "Reference Books of 1963.")
Volume 2. Geographic-Personnel Index. $15.00
Volume 3. New Special Libraries (Periodic supplement).
Supplements Volume 1 until publication of the 3rd ed.
Inter-edition subscription $25.00

Encyclopedia of Associations. 5th ed. Ed. by Frederick G. Ruffner, Jr., et al. 1968.
Volume 1. National Organizations of the U.S. $29.50
Newly updated and enlarged edition with more than 13,600 membership organizations. (In *Choice* list for "Opening Day" collections.)

Volume 2. Geographic-Executive Index. $17.50
Volume 3. New Associations (Periodic supplement). Inter-edition subscription $25.00
Supplements Volume 1 until publication of the 6th ed.

English Language Newspapers Abroad—*A Guide to Daily Newspapers in Non-English-Speaking Countries.* By Dennis L. Wilcox. 1967. 234 p. $11.75

Executive's Guide to Information Sources. 1966. 3 vol. 2,468 p. $37.50
Identifies specialized sources of information on specific subjects. (Cited in *Library Journal* list of "50 Business Books of 1966.")

The Librarian and the Machine. By Paul Wasserman. 1965. 170 p. $5.75
Surveys the field of library automation; probing problems and considering applications.

Management Information Guides. ea. $8.75
Published information guides cover real estate, building construction, public finance, the textile industry, developing nations, standards and specifications, public utilities, transportation, business trends and forecasting, government regulation of business, and packaging. Two new series titles are in press:
Systems and Procedures, Including Office Management. Ed. by Chester Morrill.
Electronic Industries Information Sources. Ed. by Gretchen Randle.

National Directory of Newsletters and Reporting Services. 1966. 240 p. $20.00
1,500 special-interest publications identified and described. (Cited in *Library Journal* list of "50 Business Books of 1966.")

Pictures-on-file. 1967-. $72.00 per 100 units
P-O-F is a ready-made picture collection. Each unit comes in a labeled file folder and consists of eight 8½" × 11" labeled plates, printed on heavy, coated stock. Each plate contains one to four illustrations, fully captioned.

Research Centers Directory. 2nd ed. Ed. by Archie M. Palmer and Anthony T. Kruzas. 1965. 666 p. $35.00
Subjects studied, staff, budgets, etc., are among the data given for 3,000 university and independent research groups. (Cited in *Library Journal* list of "Reference Books of 1965.")

New Research Centers (Periodic supplement). Ed. by Archie M. Palmer.
Supplements RCD until publication of the 3rd ed.
Inter-edition subscription $25.00

Statistics Sources. 2nd ed. Ed. by Paul Wasserman, Eleanor Allen, and Charlotte Georgi. 1965. 387 p. $20.00
Pinpoints 12,000 published and unpublished sources for statistics on 8,000 subjects. (1st ed. cited in *Library Journal* list of "Business Books of 1962.")

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