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JANUARY 1962, VOL. 53, NO.

Translations—Their Announcement, Distribution, Selection, Production, Use and Support

Japanese Translation Problems

Russian Transliteration Systems

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THE 53RD CONVENTION WILL BE AT SHERATON-PARK HOTEL, WASHINGTON, D. C., MAY 27-31, 1962

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CONTENTS

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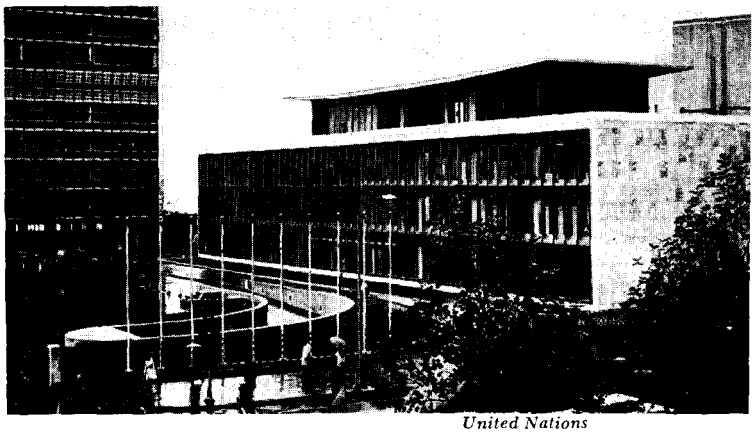
The Most Vital Special Library In the World—



United Nations

The Dag Hammarskjold Library

Contrary to customary practice, the General Assembly voiced unanimous agreement to a resolution adopted on October 17, 1961 —that the about-to-be completed United Nations Library be named in honor of the late Secretary-General and be called the Dag Hammarskjold Library. It is particularly fitting that the new library building should bear the name of this eminent Swedish scholar, international statesman and worker for world peace, for Dag Hammarskjold was also a collector and reader of fine books, a friend of librarians and booksellers and a vocal advocate of the necessity for and value of good library service. He took a deep personal interest in the construction of the Library and during the last two years found time in his busy schedule to discuss the details of the building plans and make arrangements for the dedication ceremonies.

Appreciating the significance of a proficient library in international study and research, Mr. Hammarskjold wanted the dedication of the United Nations Library to symbolize its contributions to better international understanding and cooperation. The program was carried out in conformity with his plans and decisions, except that the building was not named the United Nations Library as he had expected. On November 16, 1961, the Dag Hammarskjold Library was formally dedicated by the Acting Secretary-General, Mr. U Thant, and on the following two days a library symposium was held in which more than 30 library leaders from as many member countries and 80 to 90 United States librarians and publishers participated. The dignity, graciousness and cooperative spirit of the formal sessions, lunches and tours were yet another tribute to Mr. Hammarskjold's concern with the progress of international librarianship and collaboration.

Twelve speakers and 15 panelists discussed in several languages "The Development of the United Nations Library," chaired by Andrew W. Cordier, Under-Secretary for the General Assembly and Related Affairs, "The Role of the United Nations Library," chaired by Sir Frank Francis, Director and Principal Librarian of the British Museum, and "The United Nations Library and the Promotion of Research in Its Fields of Specialization," chaired by Dr. Abdel Moneim M. Omar, Director-General of the Egyptian Library in Cairo. Dr. Josef Stummvoll, Director of the Library, and Joseph Groesbeck, Deputy Director, served as resource experts and answered a variety of questions from participants. The exceptionally high caliber of the papers presented and the thoughtfulness of the comments made from the floor indicated that library leaders everywhere supported wholeheartedly the aims and objectives of the Dag Hammarskjold Library "to provide improved library facilities at United Nations Headquarters."

Since its beginning in a three-room suite in the War Memorial Building in San Francisco in 1945 when the international organization was being set up, the United Nations Library has been "unique among the research libraries in the world." Not only has it acquired, processed and made available books, periodicals, newspapers and a variety of other materials in many languages for the use of the United Nations delegations and their staffs, the Secretariat and research scholars, but it has also engaged in extensive and outstanding bibliographic and indexing work. Its present staff of 115 men and women, 46.9 per cent of whom are professionally trained librarians, are responsible for assembling adequate documentation about and from all member nations as well as indexing in depth internal and external reports and publications issued by the United Nations.

During the years spent in temporary quarters at Lake Success and later in the crowded, woefully inadequate Manhattan Building, it was realized that new services and materials dictated new functions and uses of the Library. Inter-library loans increased, bibliographic and reference service expanded, especially to new member states that do not have research staffs, means of cooperating with other research libraries in New York City and elsewhere were developed, and the number of reference inquiries almost doubled. With its new space, facilities and equipment, the Library expects to increase its activities still further and to enlarge its book collection to 400,000 volumes. It will absorb the present Trusteeship Library, but the legal and statistical branch libraries will remain in the Secretariat Building.

Designed by the architectural firm of Harrison, Abramowitz and Harris and built by the George A. Fuller Construction Company, the Library was built, furnished and equipped with $6,200,000 generously given for that purpose by the Ford Foundation in 1959. The low six-story structure, three stories of which are below ground level, has two long walls of solid glass and aluminum, while the two end walls are of white marble. In addition to stacks, offices and reading-study areas, the Library boasts a small auditorium, microfilm, audio and map rooms and a penthouse lounge. Although spacious, airy, efficient and tastefully conceived by a dedicated group of architects and librarians, the Dag Hammarskjold Library is, as one symposium delegate perceptively remarked, "not a palace but a workshop for peace." M.L.A.

OTS and SLA as Announcers and Distributors of Translations

GEORGE MANDEL, Chief, Lewis Research Center Library
National Aeronautics and Space Administration, Cleveland, Ohio

THIS PANEL WILL discuss the "National State of the Technical Translation Program" from the viewpoint of the initiators of translations with reference, where relevant, to plans for translations of Chinese technical literature. As background material and as an introduction to the speakers' presentations as initiators of translations, I shall review the contributions of OTS and the SLA Center as announcers and distributors of translations.

Introduction to a panel on translation activities presented before the Science-Technology Division, May 29, 1961, at the 52nd Annual Special Libraries Association Convention in San Francisco.

SLA Translations Center

The SLA Translations Center, located at The John Crerar Library in Chicago, serves as a national depository of translations. It was formally organized in 1953 (then known as the SLA Translation Pool), although members of the Science-Technology Division, and particularly the Engineering-Aeronautics Section, had been collecting and

maintaining a union card list of translations since the end of World War II. Shortly after its move to Chicago, the Center began publishing *Translation Monthly*, a listing of translations received each month by the Center. Until 1959 it operated as the only translation center available to the general public in the United States, collecting translations prepared by both private and governmental agencies, domestic and foreign. In January 1959 the SLA Center entered into a cooperative project with the Office of Technical Services (OTS) of the United States Department of Commerce in which the Center continues to collect foreign and domestic translations from nongovernmental institutions, while OTS collects material from domestic and foreign governmental organizations. Copies of all translations received by either agency are deposited at the other.

As of April 1961, the SLA Translations Center's holdings totaled approximately 55,000 translations. The Center and OTS jointly collect an average of 10,000 translations yearly, of which SLA collects approximately 50 per cent. This collection is possible only through the cooperation of various industrial, educational and other research organizations that are willing to share their translations with fellow research workers. Since it is a cooperative undertaking, the Center's growth depends on contributions from outside organizations. Many organizations do not wish to be disclosed as the originator of a translation for competitive and proprietary reasons, and the Center protects the anonymity of its depositors by obliterating all identifying information before releasing any translation for general use.

The SLA Center is rendering valuable services as a central information source on translations. Its services are free; the only charges involved are those to cover reproduction costs when copies of translations are supplied. Approximately 10,000 requests for translations are answered yearly; over 80 per cent are filled within two weeks. If the author's name and references to the original publication are given in the request, the requester is informed regarding the availability of the translation within three to four days.

All translations held in the Center's collection have been announced in a number of publications: the *SLA Author List of Translations* (1953) and its *Supplement* (1954), *Bibliography of Translations from Russian Scientific and Technical Literature, Translation Monthly* and *Technical Translations*. In addition to translations held in its own collection, the Center also keeps a record of translations available from commercial translating agencies and translation pools abroad and will direct requesters to the proper source. Translations received at the Center are temporarily cataloged for the Center's files to make them available immediately after they are received. Translations deposited by nongovernmental organizations are therefore available for general use prior to their announcement in the journal, *Technical Translations*.

The collection covers material from all fields of theoretical and applied sciences and represents all languages. Information on the newest foreign scientific research and industrial achievements, especially in Western Europe and Japan, is accessible to English-speaking research workers in the form of translations. A study of translation requests showed that interest in foreign research, classified by the original language, is in the following order: German, French, Russian, Japanese and Italian.

The Center's main goal is to break the language barrier in scientific information. For this purpose the Center is presently engaged in a survey of translation activities in the United States. (*See also* article by Alberta Brown in this issue.) The Survey revealed that approximately 687 private organizations are engaged in translating activities, while only 200 of these contribute their translations to the Center. The Center hopes to gain the cooperation of all organizations preparing translations. While gathering information for the survey, it was discovered that approximately two per cent of the Center's holdings have been duplicated, many of them more than once. The SLA Translations Center hopes that the time is not too far away when the entire American research community will realize that joint cooperation in the translating field will be of benefit to all participants.

OTS Translation Program

As mentioned earlier, the Office of Technical Services of the Department of Commerce has been collecting, announcing and making available to the general public translations that have been prepared by United States and foreign government sources in cooperation with SLA's efforts to obtain nongovernmental material. OTS has contacted the major United States government agencies, such as AEC, NASA and Naval Research Laboratory, to acquire copies of translations prepared by and for these agencies. Arrangements have been made to exchange material with Great Britain and other countries that maintain files of translations.

In cooperation with the SLA Translations Center, OTS began publishing the journal *Technical Translations* in January 1959. This journal announces translations available from OTS, SLA and other sources. Many of these other sources are commercial.

In addition, *Technical Translations* has a section called "Translations in Process," which lists material that is in the process of being translated in order to inform the scientific community of almost-available technical information and also to prevent duplication.

Both OTS and SLA provide reference searching services to requesters who wish to know if needed translations are available. If the required translations are part of the collections, each will provide full translations at a very modest cost. If available commercially from another source or if the translation is in process, this information is forwarded to the requester.

OTS has broadened its acquisitions program to include translations prepared by foreign government sources. It is cooperating with the United States Atomic Energy Commission (AEC), the United Kingdom Atomic Energy Authority (UKAEA) and the European Atomic Energy Community (EURATOM). A central information clearing house called Transatom has been established at Brussels very recently to collect and share translations on nuclear literature commonly held. Both OTS and SLA will have information on the availability of this additional literature, which will be announced in *Technical Translations.*

Another new development in broadening the OTS acquisition program of foreign translations prepared by foreign government sources has been undertaken with the newly organized European Translation Center at the Technical University, Delft, Netherlands. This Center is sponsored by the 12 member countries of the European Productivity Agency and will serve as an information center on the availability of translations of scientific literature. OTS will exchange both translations and information on availability with the European Translation Center, and this data also will be announced in *Technical Translations.* It is estimated that this new supply of available translations will add over ten per cent to the listings of *Technical Translations* in the first year and that eventually the new contributions of the European Translation Center will equal the present listings of some 500 new translations in each issue of the journal.

At present *Technical Translations* reflects what has been put into "the pot of translations" primarily by technical societies, individual research laboratories, government agencies and commercial translators. When we, the users, look into this pot, we see a great deal of material that has been provided by others. How did the pot get the way it is? Is it only a result of many individual research people seeing individual references to foreign articles and asking for individual translations? Or is there also a well-planned, evaluative, screening and analytical approach that brings to the attention of users foreign literature they might see references to months and years after it has been originally published or which they might never see? With these questions in mind, we have asked extremely well-qualified speakers how they initiate their translation programs. From their presentation we may gain a much better insight into how the translation pot became the way it is.

AUTHOR'S NOTE: I should like to thank Dr. Joseph Caponio and Lillian Hamrick of OTS for the information they sent me to help make this a current report. I should also like to thank Mrs. Ildiko Nowak, whose contribution on the SLA Translations Center I presented almost in its entirety.

How Translations Are Selected

EARL COLEMAN, President
Consultants Bureau Enterprises, Inc., New York


Fabian Bachrach

OUT OF THE enormous pouring forth of scientific reports, out of the welter of data concerning experiments and verifications, it is necessary to choose precisely the material that should be translated, so that scientists everywhere may know the state of the art at a given moment.

When Mrs. Coleman and I first came on the translation scene in 1946, selection had become so large a problem (part really of the entire problem of information retrieval) and duplication of effort was so rampant, that there was a great deal of confusion in the field. It was not uncommon for the same material to be translated a dozen or even two dozen times by as many different organizations. Unfortunately, this situation still prevails. It was the very presence of a huge but finite amount of material—the Technical Oil Mission reels—that made possible the experiment Consultants Bureau conducted. Perhaps in examining the questions we had to ask in beginning this experiment and in tracking down some of the answers that led us into Russian translation, and even in anticipating the difficulties facing us as far as Chinese translation is concerned, we may come to an understanding of the nature of the problem. We may even find an approach to the solution.

Selected German Translations Experiment

Only one day after Consultants Bureau was formed in 1946, I came upon the information that there were in the United States 21 tons of captured German scientific and technical reports. Since we had never done more than a few thousand words of translation, this enormous quantity of material staggered us. Neither Mrs. Coleman nor I were scientists or linguists, and neither of us had run a business. All this made us ideally equipped to tackle the problem.

We learned that these 21 tons were being held by the Office of Technical Services of the Department of Commerce, and we assumed that they were worthy of translation. Upon visiting the New York office of the Department of Commerce, we said Consultants Bureau was a translation agency and that we would like to have one ton. Needless to say, the man smiled and said that that was not quite the way one went about this sort of thing. He told us that OTS issued weekly a bibliography listing the documents that had been cataloged. If a chemist at DuPont came across a title that intrigued him, he'd order a copy of the original German from OTS.

Fortunately, we were naive, and so we asked, "What does this chemist do with the German?" Patiently the man explained that unless the scientist could read German, he employed a translator. We then asked, "Wouldn't a chemist at Montsanto be interested in the same paper? Wouldn't he be likely to order it in German? Then what would he do?" We were told that he would, of course, order it and have it translated. Mrs. Coleman then asked incredulously, "And if he's a chemist at Dow?" at which juncture the man said, "I see your point, but that seems to be the way things are done."

That night, Mrs. Coleman and I worked out a pro rata scheme for the translation of the entire 21 tons of captured German documents. Although this scheme was not eventually adopted, it led us directly to an arrangement with the American Petroleum Institute. Under this arrangement, we translated *selected papers* from the Technical Oil Mission reels—250 reels, 1,000 frames per reel. We expected the program to make us rich. Unfortunately, it nearly pauperized us.

Paper presented before the Science-Technology Division, May 29, 1961, at the 52nd Annual Special Libraries Association Convention in San Francisco.

The American Petroleum Institute was quite confident that we would receive no less than 15 orders for the translation of any paper chosen by its Film Study Group. Since the going rate in the field was $20 per 1,000 words, and since we were going to prorate the cost of translation and publication, a charge of $2 per 1,000 words per client on a sale of 15 copies would bring in enough money for us to break even. Our profit would arise from any sales beyond the 15 predicted. The sad fact was that of the many, many hundreds of documents we published, we went over 15 orders on only two or three dozen papers and went under on more than I like to recall.

The mechanism was as follows. The American Petroleum Institute had the reels. Each reel would go to one or another member of the Institute's Film Study Group who could read the orginal German. He recommended certain papers from his reel for translation. The reel would come back to us, and our translators would make an abstract of each document chosen.

We would at this time set a maximum price, which was tentative only in the sense that it could be lower but not higher. We would then circularize the entire industry with this list of abstracts. While we were not bound in any contractual sense to translate those recommended documents for which we received less than 15 orders, we found that in a practical business sense we were bound indeed. What does one do when one has expended a great deal of money on abstracting, printing lists and mailings, only to have six, seven or eight orders trickle in instead of 15 or more? The iron law of necessity closes in. You don't dismiss your typists; you don't tell your translators to take a vacation. Instead you take the risk and plunge on.

A word here about the cumbersomeness of this method. The selector in the Film Study Group was, of course, not being paid by us but by the firm for which he worked. Therefore, since reviewing these reels was a labor of love, he did it as he could find time. But such time-finding was sporadic, and weeks passed when we had no abstracting to do.

Another complication was inherent in the very nature of this method of selection. If, as a businessman, I were choosing a docu ment to translate and publish, I woul choose one which would be "hot" to th widest possible circle of researchers. On th other hand, the scientist making the choic might very well be (and too often was) in terested only in his own specialty. We were therefore, translating not *the* best selection for the widest possible circle of researcher but rather one individual's personal prefer ences. This made for neither profits nor wid dissemination. It is my firm belief that man of the most important papers on the 25(Technical Oil Mission reels were neve translated, except perhaps individually.

It had sounded like such a wonderful so lution to the problem of translation of scien tific material—selection by experts, abstract circulated to all people interested, translatior by scientists, reproduction in limited quan tities and the cost prorated amongst the ac tual customers. In fact, it *was* a wonderful solution. The only thing wrong with it was that it didn't work! It lost money for Consultants Bureau; it didn't cover all the valuable material on those reels; and it certainly didn't make life any simpler for the librarian.

I have taken so long gnawing on these old bones because there are still proponents of this method of sporadic choice of translations. It surprises me that these same proponents do not go one step further. It is common belief that a great deal of the material appearing in scientific publications emanating in *English* in *this* country in our *own* scientific journals is not worthy of publication and doesn't advance scientific frontiers.

I would expect, therefore, a loud outcry to be made about this complaining that the Library of Congress was housing tons of unimportant material and that what is needed is a vast committee that will pass on material after it is published to determine whether magazines should be chopped apart and the unimportant papers thrown out. Maybe it might be suggested that the learned societies themselves are not guarding the entrance to their journals sufficiently and that some committee will have to be set up above their own editorial committees to pass on papers before they are published in the journals. Contrariwise, I would not say that *only* excel-

ent material goes into our own publications, ›ut I *would* say that competent authorities vho have accepted papers for publication nust have recognized that either a paper epresents an advance and is of importance ›r it represents costly and time-consuming vork that now need not be duplicated. This oo has its value.

?ussian Cover-to-Cover Translation Approach

As we turned our attention from the Gerıan wartime reports to the then recently ıvailable Russian journals, we were deterıined not to make the same mistake. We ıad to do a much better job of selecting reports to translate—obviously. But how?

At this point we tried circulating a table ›f contents of one issue of a Russian chemical journal to some experts in various ›ranches of chemistry and to some librarians who had volunteered to help us with the problem of selection. As soon as the returns were in, we were struck by the fact that more than three-fourths of the papers in that issue had been checked by at least one advisor as well worth translating.

Here, we realized, was the answer. The contents of the Soviet scientific journals *are selected.* Like their Western counterparts, they are fairly homogeneous in nature, in subject and in level of scientific erudition. To eliminate the small fraction of material in a given issue that would not be of interest to *some* of the potential readers of that journal would cost more in valuable translator-time than it would cost to translate and publish the entire journal.

Thus we hit upon the solution to the problem—cover-to-cover translation of carefully *selected* periodicals.

We then asked the advice of this same group of Consultants Bureau consultants about which Russian journals they thought would be the most suitable for such an experiment. They were very enthusiastic about the basic idea and advised us that we should begin with the *Journal of General Chemistry,* the translation of which we initiated in 1949. We began publication of this journal with nothing except nerve, debt and 13 subscribers. We now have almost 500 subscribers—still not enough—but since they are almost all libraries, the actual readership is probably 10,000 or more.

The problem of selection was thus narrowed down to the problem of selecting the right journals to translate and publish. For this we have had the benefit of advisor-scientists, librarians and people in industry, and we have been able to create our present list of journals. We take what we believe is pardonable pride in having initiated the cover-to-cover approach to translation, which has subsequently been adopted for both the American and British translation programs. We believe that the most important scientific and technical material coming out of the Soviet Union is now being brought to the attention of American scientists.

The experts have not always been right commercially, although they may well have been right as to the quality of a particular journal recommended. We initiated a translation of the *Czech Journal of Physics,* which was recommended to us by scores of scientists, but we received only 50 subscriptions at $50 each and were forced to drop the journal. We have trouble with some of our other journals, which actually operate at a loss, but we attempt to continue them if we can by obtaining subsidies in one form or another, since it is our belief that once a librarian has made an investment in a translated journal, this investment would be almost wasted unless the journal continues.

What made the packaging easy as far as the Russian journals were concerned? Basically it was the consistently high level of material in the journals we translate and the finite and limited scope of most of the Soviet journals, which are as specific as *Kinetics and Catalysis, Solid State Physics, Antibiotics* and so on.

Problems of Translating Chinese Journals

These same factors are not to be found in Chinese journals. Chinese journals are still very uneven in quality. The same journal may cover a tremendous range of specialties and may contain reports on both amateur and highly theoretical levels. It will be difficult to find the best method of producing translations of this literature. To complicate matters even further, Chinese journals are

very hard to obtain. Although there are certain depositories in the United States that have a great deal of this material, they are not in continuous enough receipt of it to make possible a periodic publication.

Consultants Bureau has now gathered a group of 86 scientist-translators ready to go to work on Chinese. We are very eager to begin, but no method has yet presented itself. Sporadic translation and translation by choice make me shudder, recalling our sad experience with German. The Chinese journals, as they are now constituted (even if one could get them), do not lend themselves to cover-to-cover translation. Abstracting might be an answer, except that abstracts can only lead toward a whetting of the appetite, are very costly and are actually wasteful if translation later takes place. It is my belief and hope that the Chinese will eventually pattern their journals along Soviet lines, which will certainly make a program of translation from Chinese much easier for us to organize.

Russian Book Translation Program

The selection of Soviet books worthy of translation is much more complex, and one of the purposes of our recent trip to the USSR was to seek assistance in this direction. During our stay in the Soviet Union,* Mrs. Coleman and I visited the most important scientific presses and in each case had very pleasant and fruitful conversations with the director. Our excellent reception was due, I imagine, to two circumstances: *1)* their satisfaction with the quality of the translations we publish, and *2)* the arrangement we have with the official Soviet book agency, Mezhdunarodnaya Kniga.

Each of our meetings followed a pattern. We would introduce ourselves and learn that they knew all about us, that they had seen our books and that they were very interested in cooperating with us. We would then ask whether or not they had yet completed their 1961 publishing plans, and in almost every case found that, like American publishers, they knew well in advance what they would be publishing. At that point, their group of editors would sit down with us and go through each list, checking off those books they felt represented important scientific advances. We placed options on these books with Mezhdunarodnaya Kniga and so far we have received some 100 of them as they have been published in the Soviet Union. Thirty-one of these books are presently in the process of being translated.

We do not, of course, translate all of the books we receive. Every one is thoroughly evaluated by our own group of advisory editors, and only if it seems to be a real contribution to the English literature on the subject, is it included in our program. Many of the books we undertake are proceedings of Soviet conferences, which report the very latest Soviet research in the field.

Consultants Bureau issues quarterly lists of all books under consideration or in production, and these lists are circulated to all publishers in the field, to ensure, in so far as *we* are able, that there is no duplication.

Because of the rigidity of the Soviet approach in certain areas, some subjects have never been touched upon by us. As rigidity lessens, however, new areas become of interest. For example, we have just begun a series entitled *The International Behavioral Sciences Series.* Thus far, four of the books in this new series are translations from the Russian, and one of them was originally published in East Germany.

Frequently, of course, we learn about material that may have interest for an American audience through unsolicited advice. The new journal *Kinetics and Catalysis* is an example of a publication recommended by one of our readers. Several Russian books have also been translated by us as a result of "tips" from American librarians and scientists. We are always interested in such opinions and welcome such correspondence.

It is my belief that as science burgeons in the next ten years, it will be most important for librarians especially to become more and more familiar with all translations. By so doing, they can tap literally hundreds of thousands of dollars worth of brain power for the use of our own scientists—for an infinitesimal fraction of the original cost.

* EDITOR'S NOTE: This trip was described by the author in "An American Publisher's Impressions of the Soviet Union," *Special Libraries,* vol. 52, no. 2, February 1961, p. 71-4.

Technical Translations: Their Initiation, Production and Use

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THE TRANSLATION of foreign language materials of scientific interest has been carried out for many years, but now the "scientific information explosion," which has taken place since World War II, has added a new dimension to the technical translator. The newer approaches to research, which involve interdisciplinary work, require that the technical translator of today be a good linguist and, more importantly, he also has to be well-equipped in several scientific disciplines.

Although knowledge of two foreign languages has long been a requirement for the Ph.D. degree in most sciences, once the degree was granted, concentration was directed toward work in the discipline rather than toward further knowledge of foreign languages. The smattering of language capability, coupled with a high degree of substantive competence, has frequently led to criticism of technical translators when a translated text appears to be ambiguous or the scientific statements incorrect.

Today most American scientific communities are convinced that to keep up with the "document explosion," they must be more conscious of accurate and complete translations of the writings of the world scientific community. I shall deal with each of the problems of the initiation, production and use of translated technical writings individually, but I believe that the cyclic process of the breeding of requirement for translations by the existence of new capabilities will be evident throughout the discussion.

Why Translations Are Made

The reason why some subject areas are more completely covered in translated form than others is nothing more than the expression of the laws of supply and demand. The demand for certain disciplines to have as complete coverage as possible is expressed because they are related to the national security or the highest rate of scientific progress is being made in those disciplines. These reasons are linked closely with the so-called "hard" sciences—physics, chemistry or special manifestations of nuclear energy.

The priority order of subjects dealt with in CIA's machine translation project was organic chemistry, physical chemistry, geophysics, high energy physics, solid state physics and economics. With the exception of the last item in the series, these subjects were in the "hard" sciences. Economics was added so that the translating system might be tested against a social science. Forthcoming papers will discuss some of the unexpected and revealing differences in the structure of language used to describe research results in the physical and social sciences and their different degrees of translatability, whether by man or by machine. The demand for translations in the social sciences may be tempered by the greater foreign language competence among social scientists.

Thus the initiation of translation depends on two principal factors: *1)* the degree of interest in a given discipline and *2)* the availability of talent to translate the material properly. In consideration of these requirements and available facilities, selecting the most profitable publications to be translated may be done in several ways. Among the earliest attempts to identify journals from which a chemist or mathematician might expect to find significant materials of Soviet origin are to be found in some of my publications dating from 1949 to 1952.[1-5] Other methods included analysis of the sources cited in the literature of a given subject, such as organic chemistry, to determine

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which journals should be considered for regular translation programs.[6]

A result of these reviews was a program of cover-to-cover translation of selected journals under the sponsorship of the National Science Foundation. The Library of Congress initiated the *Monthly Index of Russian Accessions* and the *East European Accessions Index* to assist scientists and other research personnel in keeping aware of new monographs or journal articles in their fields and to permit retrospective searches by subject.

With machine translation becoming operational in the immediate future, the volume of translated material will be increased by several orders of magnitude. The organization of this product is a problem for Special Libraries Association concern. I have discussed the parameters of an operational machine translation center elsewhere[7] and will not repeat these data here.

General Problems in Producing Translations

What has been said up to this point is a logical summation of reasons for starting the translation process. Now, I propose to explain, by example, some of the subtleties and difficulties of producing technical translations, which I do not believe have been adequately explained before. A translator is charged by his professional ethics with the accurate, complete, terminologically correct and readable transformation of an expression of fact and concept from one natural language into another. He must preserve all the ambiguity, imprecision and inaccuracy of statement which the original writer used, as well as convey the message intended. The preservation of undesirable writing habits is most difficult and, when well done, subjects the translator, not the writer, to criticism.

There has been much discussion of the standards against which translations, whether human or machine, should be tested. In selecting such standards, we should ideally seek characteristics for a measuring instrument that could then be applied objectively and with results capable of reproduction by other examiners. This statement most certainly applies to measurements of finite objects, the dimensions of which are already agreed. But in written or spoken language, the unity of expression and content level of a message frequently cannot be agreed on even by two workers in the same field when a common language is the communication vehicle. Although this situation complicates the problem of seeking standard criteria for evaluation of translations, the problem can be said to have many variables, all of which are subject to definition and can be held constant for single variable evaluation.

In the following paragraphs on the production of translation, I shall illustrate the points by reference to translation of Soviet scientific literature into English. Similar cases-in-point could be found for any language pair. The translation of Soviet scientific publications is hindered both by lack of reference materials in the Russian language and frequent use of terms the author invents or adapts from another language. This situation is further complicated when terms are taken from the dialectics of Marxism-Leninism to show that the new research is not a departure from ideological precedent, the purpose being to forestall criticism by the party or political hacks who might cut off research funds or adversely affect the researcher's position and prestige in the Soviet scientific community. This necessity of constantly demonstrating the ideological correctness of new research involves semantic shifts and interpretation of scientific terms.

Some years ago when there were clearer boundaries between scientific disciplines, the technical knowledge of the linguist was easier to define. Now the situation is quite different. With the advent of interdisciplinary research, to assume a proper rendition of a foreign text the translator must be familiar with all contributory and adjacent fields to the subject of interest and how they interact.

The multi-disciplinary nature of research and the ideological justification of Soviet work in the fields of greatest interest, combined with the fact that the Soviets are frequently on a par with or advanced beyond American research (thereby increasing the difficulty of finding comparable English language reference works), make translation of Russian language texts in some fields a slow, laborious job requiring skill, imagination and considerable research.

Russian Teminology and Concept Problems

The Russian language terminology in specialized fields of knowledge has meanings which are very different from the ordinary literal Russian. Some very apt examples taken from the fields of electronics, computers and data processing can be cited.*

The term that would normally be translated as "arbitrary selections" becomes, in computer context, "random access." In computer programing the literal translation of the Russian term is "translation—programing program," but "translator-compiler" is the correct meaning. The term "computer" itself is given four Russian renditions in one of the latest Soviet published glossaries on automatic regulation and control.

"Analog-digital converter" is given a descriptive rendition in Russian and literally means "device for converting the angular displacement of a shaft into digital form." This example points up the fact that a good subject knowledge is frequently required in dealing with terminology. This is especially true when the terms cannot be found in any existing dictionary; it becomes necessary for the translator to analyze the word or words in the subject context. Oftentimes, he must search out and read the English literature on the subject to elucidate the concept involved. If a proper English equivalent cannot be found, then a descriptive rendition in English must be given. Frequently the translator resorts to inserting in brackets an explanatory note that sufficiently explains the term in question. Newly developing fields of knowledge, such as computer technology and automation for which a sufficiently standardized terminology does not exist in either language, pose serious translation problems. I can recall one translation in which the liberal distribution of translator's notes attempting to explain the terminology far exceeded the size of the actual text.

Soviet scientific and technical literature is replete not only with abbreviations peculiar to specific scientific disciplines but also with abbreviations of an organizational and geographic nature. Few lists of Russian abbreviations are available. The abbreviation for a Soviet anthrax vaccine has repeatedly resisted attempts to discover its full-form expansion. Sometimes only the context will resolve an ambiguity, such as with one Russian abbreviation that can mean either "piston engine" or "semiconductor diode."

"HAC" is literally "pumping-water accumulating station." Actually, this is a hydroelectric power station, which is capable of using some of its water turbines to pump water back into the upper reservoir during periods of low power requirement.

Notational abbreviations such as x appearing in mathematical texts create problems involving determination of syntactical relations. The abbreviation x might be the genitive case, meaning "the value of x," or in apposition, meaning "the value x."

Retransliteration of English proper names from the Russian does not follow any set rules. Thus, in some recently translated Soviet articles a direct letter-for-letter transliteration produced the following results: S. K. Klini for S. C. Kleene; E. F. Mur for E. F. Moore; F. Dzh. Merrey for F. J. Murray; and Smizers for Smithers. Obviously, the translator must have a wide familiarity with the names of the specialists and personalities in the field of his translating.

There are many instances of a concept being compressed into a single Russian word for which there is no single-word English equivalent. One must resort to a descriptive definition of the word.

Russian biological literature contains names of plants and animals whose normal and exclusive habitat is the territory of the USSR. Consequently, the taxonomy used is peculiarly Russian and defies equivalency in any other language. For instance, the names of a ground squirrel of northeastern Europe and northwestern Asia about the size of the common European squirrel, but with a short tail and mottled grayish-brown fur, and a broadtail sheep of a hardy breed of unknown origin, from the Bukhara region of Central Asia, suitable to semiarid regions, may be found in Webster's dictionary in transliterated form as *suslik* and *karakul*.

* EDITOR'S NOTE: The difficulty and expense of securing type for Cyrillic characters has made it impossible to reproduce the Russian terms used as examples here and throughout the article.

Another Soviet idiosyncrasy is the disregard for the most current standard bacterial nomenclature. Instead, obsolete nomenclature or Russian descriptive terms are used. For example, the Latin form *Bacterium prodigiosum* is described in Russian as "miraculous bacillus."

Some Russianisms embody concepts that cannot be captured in the apparent single-word English equivalents and must be rendered discriptively. *Ratsionalizatsiya* refers to improving the efficiency of any kind of system or process not "rationalization." *Radiofikatsiya* refers to the set of technical efforts made to bring radio reception to a wider audience by means of wire broadcasting techniques, not "radiofication."

Redundancy of expression is a frequent peculiarity. Two different Russian words meaning the same thing are often encountered in the same sentence. For example, "razrabotka *uprugikh* i *elastichnykh* chuvstvitel'nykh elementov" equals "development of *elastic* and *elastic* sensing elements."

Russian Grammar and Punctuation Problems

The grammatical pitfalls in translating Russian are no less frightening than the lexical pitfalls. Many dangers are inherent in literal translation. Soviet scientists are addicted to using extremely long, inverted and complicated sentences. The Russian language does not use the indefinite or the definite article. The Russian verb system is complex and contains a perfective and imperfective aspect denoting completed or incompleted actions respectively. If one is not born to it, the use of correct aspect is both subtle and difficult.

Since Russian has no specific word for the article, a practical feel for its usage in English is necessary. However, even with a knowledge of English usage of the article, it is still quite difficult in some cases to determine from the Russian context whether the definite or indefinite article is to be used. For example, the Russian sentence "Give me pencil" contains no morphological or syntactic clues as to whether it is a definite (the) or an indefinite (a) pencil. The difficulty is further magnified in the case of translators whose native language is not English. In such cases the translator tends to use the article liberally when it should actually be omitted.

Punctuation usage in Russian is much the same as in English with the exception of some peculiarities in the use of the comma and dash. A marked difference occurs in the general use of the comma between clauses of the same sentence regardless of whether or not the clauses are subordinate or coordinate. Similar English examples, which obviously are incorrect, would read "He saw, that he had made a mistake" and "Tell me, what I am to do."

The translation of functional words, such as prepositions as opposed to substantives, involves numerous pitfalls. Prepositions chiefly express relationships between words. Their translation involves the transfer of these relationships and the conventional means of representing these relationships. For example, the preposition "po" may be represented by as many as 12 English equivalents. In the following examples some typical combinations of the preposition "po" and its governor and dependent are illustrated: "gulyat' *po* sadu" equals "to walk *about* the garden"; "vyvodit' *po* dannym" equals "to deduce *from* the data"; and "idti *po* doroge" equals "to walk *along* the road." On the other hand, a construction literally meaning "protein according to nitrogen" simply means "protein nitrogen."

The syntactic phenomenon of a prepositional phrase nesting within another prepositional phrase presents, at times, a challenging opportunity for analysis. As the following examples illustrate, a word-for-word literal translation can result in nonsense:

Literal: from the forming the base of these complexes simple salts
Correct: from simple salts forming the base of these complexes

Literal: in an exposed to the action of sound medium
Correct: in a medium exposed to the action of sound

The dangers of translating literally word-for-word the complicated and lengthy sentence structure frequently encountered in scientific discourse are well illustrated by the following example:

Literal: In addition the idea concerning the fact that every even, it would seem, simple unconditioned reflex, acting only on one afferent system, represents itself as a complicated complex, permits to use for an explanation of the mechanisms of its action certain general principles of formation of conditioned connections, arising during the use of simultaneous or successive complexes and chains of stimuli, acting on various analyzers.

Correct: In addition, the idea that every, even apparently simple, unconditioned stimulus which acts on only one afferent system is a complicated complex makes it possible to utilize certain general principles of the formation of the conditioned connections which arise during the use of simultaneous or successive complexes and chains of stimuli which act on various analyzers in order to explain the mechanisms of its action.

Other problems inherent in the grammar of the language and the terminology of other scientific disciplines could be cited. However, I have chosen to cite and illustrate only a few of the more difficult, some of which are obvious, most of which are subtle and all of which, I hope, will bring about a better understanding and appreciation of the creative faculties that must be delicately combined in the technical translator.

Use of Translations

Unfortunately the use of technical translations has been disappointing. The leading American scientific organizations and the Congress of the United States have done their utmost to promote greater use of translated scientific articles and books. But use must be preceded by knowledge of existence. The *Scientific Information Report,* published by the Central Intelligence Agency and distributed by the Office of Technical Services, had to be discontinued at the beginning of 1961 because of lack of interest. There were only 188 subscribers.

The Soviets published 154,000,000 words in the medical sciences in 1958, but when Saul Herner examined the use made in the United States of the Soviet medical literature,[8] he found little, if any, real interest.

The number of subscribers and their interest in bibliographic tools on the Soviet technical press is disappointing. In 1960, only 237 of the 578 depository libraries for government publications had the *Monthly Index of Russian Accessions* on their lists. In addition to the depository libraries, only 16 other American universities had subscriptions. Company libraries in the United States accounted for 146 subscriptions, while 55 institutes, professional societies and associations subscribe.

There were only 1,845 subscribers to *Technical Translations,* the monthly publication of the Office of Technical Services. Interest by the scientific community in translations distributed by OTS has been surprisingly low.

With the record of use of technical translation what it is, one may properly ask the question, "Will the activity be any higher when mass translations are available from a machine translation center?" What are the reasons for not using translations. Among the questions to be asked are: *1)* Are translations suspected of being inaccurate and therefore misleading? *2)* Is foreign scientific quality so low that it is of no use? *3)* Is availability of translated materials not adequately publicized?

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Translation Activities of the Foreign Science Information Program

PAUL S. FEINSTEIN, Deputy Program Director, Foreign Science Information
National Science Foundation, Washington, D. C.

THE BASIC GOAL of the Foreign Science Information Program is to promote the broadest possible communication, on an international basis, between United States scientists and institutions and foreign scientists and organizations, for the purpose of stimulating the two-way flow of scientific information. A number of activities are supported to achieve this goal, and this paper discusses briefly the translation activities supported by the Program.

As success is attained in increasing the inflow of foreign scientific information, assistance must be provided to enable United States scientists and engineers to read and assimilate the results of foreign research and development. The National Science Foundation is providing support for the translation of foreign scientific literature, simply because so very few of our scientists are able to read foreign materials. It is estimated, on the basis of data provided by scientists themselves, that some two per cent read Russian and less than one per cent read Japanese or Chinese. Additionally, translation programs are encouraged because the world volume of scientific literature in foreign languages is growing faster, in many disciplines, than is the English-language volume.

A specific translation project may be initiated as a result of a proposal, submitted to the Foundation by a professional society or academic institution, that represents a value judgment on the part of a competent group that the literature of a given discipline merits translation; or it may come into being as a result of NSF's efforts to make certain that important fields or areas are covered in translation. By way of illustration, it was noted that the USSR publishes perhaps as many as 40 significant primary chemical journals, and only a few are available in English translation. The American Chemical Society has been requested to survey these journals and ascertain from its membership what is needed in the way of coverage of these journals. Similarly, virtually every major professional society has been queried concerning its substantive knowledge or familiarity with the scientific literature of Communist China and Japan.

Currently the Program is supporting the translation of 40 Russian scientific journals on a cover-to-cover basis and eight on a selective translation basis, through some 20 societies and institutions. There is concern over the efficacy of cover-to-cover translation, since it automatically places limits on the quantity of foreign literature that can be covered. To illustrate, the Soviets publish in excess of 2,000 scientific and technical journals. Considering all sources engaged in producing translated journals, about 100 are being translated today; that is, approximately five per cent. The scientific community concurs that those translated represent the most important journals; nevertheless, can the balance be ignored? NSF thinks not. Accordingly, encouragement has been given to newer efforts in selective translation on the premise that significant material from a wider range of journals could be selected for presentation to the scientific community.

A major source of concern is the fact that not a single translation project has become financially self-sufficient, although certain of the journals being produced by the American Institute of Physics appear to be approaching

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that point after five to six years of having been subsidized.

The prospects of extending and strengthening review media have been explored. For example, the Program supports the preparation and publication of reviews of Russian work in some dozen subject fields in the volumes of the *Annual Reviews*. Program interest has been expressed in the thesis that greater coverage of foreign scientific literature through the medium of abstracting constitutes a solution. Yet, recently, certain participants in the American Petroleum Institute abstracting and selective translation scheme have advised that their experience does not constitute an answer.

It is estimated that the Program will have expended one and one-half million dollars in fiscal year 1961 in support of the translation of approximately 80,000 pages of Soviet journals, books, monographs and selected articles.

The professional societies whose translation activities are supported by the Foundation administer these programs in one of two ways: *1)* by subcontracting the translation and publications phases of the work to a commercial organization, with editorial control remaining within the society, or *2)* by the society's establishing the entire operation within its own administrative apparatus. They locate members with the skill and interest in performing translation, set up editorial staff and submit edited translated material to the society's publications director for printing and distribution. In all cases, societies have created boards or committees to discuss and resolve problems arising in any phase of the operation.

Upon receipt of a translation journal proposal in the Foundation, a check is made to determine whether any other United States Government agency, foreign government or other group is considering the translation of this same journal. For example, a number of organizations had considered translation of the new Soviet journal, *Radiochemistry*. One United States firm had sought sponsorship; the Atomic Energy Commission of Denmark laid plans to translate this journal; and the U.S.A.E.C. was interested. Recently, a first issue of the journal was brought out on a somewhat selective basis by still another private firm, therefore everyone else has dropped it.

Close coordination and cooperation is maintained with the British Department of Scientific and Industrial Research, the Canadian Research Council, the Scandanavian Council for Applied Research and similar groups. On a domestic basis, the same type of coordination is maintained with the Office of Technical Services, U. S. Department of Commerce, in order that information concerning translations may be included in the journal, *Technical Translations*. In addition, all grants made in support of translation projects are published on a bimonthly basis in the Foundation's *Scientific Information Notes*.

Other Government agencies, private business and research organizations, academic institutions and commercial translating firms have been encouraged to provide or report their own translations to the Office of Technical Services or the Special Libraries Association Translations Center. In general, most Government agencies now deposit copies of translations with OTS for public sale. Most readers should be familiar with Atomic Energy Commission, Agriculture, National Bureau of Standards, National Institutes of Health, Smithsonian, Weather Bureau and military and intelligence community translations from OTS. From time to time there are included translations from other agencies as well. Again, generally speaking, nongovernment organizations deposit copies of translations with the SLA Center. Many private firms contribute anonymously, since they quite legitimately wish to mask their interest in certain areas which might represent a competitive commercial interest. In this connection, NSF is currently supporting a survey by SLA aimed at developing comprehensive information concerning the total extent of translation activity in the United States, outside of the Federal Government. It is believed, that in addition to obtaining this useful data, the SLA Center will at the same time become the recipient of translations from a great many additional sources. As an example, a preliminary report indicates the Center has received more than

1,000 new translations—new, that is, in terms of providing sources. Although figures change fairly rapidly, the combined holdings of OTS and the SLA Center today exceed 55,000 individual article translations. The bibliographic apparatus that has been developed provides information on many thousands more. It is laborious to wade through *Technical Translations* to search out those translations of interest. However, the two centers provide reference service among their services on these translations. Indexes and new bibliographic approaches to these extensive holdings are needed and will be available in time. To date, OTS has produced two indexes to the 1959 volumes, and work is progressing on the 1960 indexes.

Japanese and Chinese Activities

It was mentioned earlier that NSF had queried professional groups and others concerning their knowledge of scientific accomplishment in the Orient, and it was ascertained that little knowledge existed about Communist Chinese developments. Contradictory information was given relevant to Japanese work. Some groups indicated that all substantive Japanese research was published in English and was readily available in this country. Others believe that only 25 per cent of Japanese publication turns up in English.

With regard to China, therefore, we developed the idea of sponsoring a symposium at which subject experts with capability in Chinese would present papers setting forth the current state of the sciences in that mainland country. The American Association for the Advancement of Science held the Symposium at its annual meeting in New York, December 1960. Through the cooperation of a number of Government agencies almost a quarter of a million pages of Communist Chinese scientific literature covering the years 1955 through early 1960 were obtained. A dozen professional societies assisted in locating 26 scientists willing and able to read approximately 10,000 pages each in order to develop a balanced, accurate picture of the state of the sciences across the spectrum. AAAS is publishing the papers as a bound volume.

The Symposium created a great deal of interest. We are now supporting a detailed survey of mathematics research in Communist China by the American Mathematical Society, which has in addition submitted a proposal for the translation of the journal *Acta Mathematica Sinica.* We understand that the American Institute of Physics has under consideration a plan for the coverage of three to five hundred pages of Chinese physics per year. The American Institute of Biological Sciences has undertaken a pilot project to determine the capacity of Chinese in Hong Kong to translate biological literature. The American Geophysical Union has submitted a proposal for the exploration and exploitation of the scientific literature of Eastern Asia and Eastern Europe in the field of geophysics. Support has been given to the Social Science Research Council which makes possible the dissemination of some 22,000 pages of translated Chinese materials to 50 American university libraries. The Association for Asian Studies is conducting a survey, under our sponsorship, of the total publications picture in Communist China. It is planned that a monograph by Dr. J. Raymond Nunn, University of Hawaii, will describe this work. All of the original material provided for the AAAS Symposium participants has been deposited at the MIT library. A listing of these, free of charge, is available, and a project for the publication of a Union List of Chinese Serials will soon be carried out.

Perhaps some readers have received copies of the first six issues of the translated *Japanese Periodicals Index.* We are supporting this translation project with the Diet Library of Japan. Ultimately, this *Index* will include articles from more than 1,000 Japanese scientific and technical periodicals. It is believed that the *Index* provides a fair picture of what is being published there.

In June 1961 a five-member team from the National Federation of Science Abstracting and Indexing Services was sent to Japan to explore with similar Japanese organizations and major producers of scientific information practical means of closer cooperation in the exchange of abstracts and publications. We have preliminary indica-

News and Notes

January 1962, No. 1

As a part of the continuing effort to improve communications in our far-flung Association, the Executive Board has approved the inauguration of an irregular insert in *Special Libraries,* which will replace the *Special Libraries Association Bulletin.*

The Publications and Public Relations Committees at the Fall Meeting expressed the need for greater coverage both in frequency and depth of news of concern, not only to the individual SLA member but also of importance to Advisory Council members in carrying out their responsibilities as your representatives.

Reports on Executive Board and Advisory Council Meetings, official news, a continuing list of Sustaining Members, progress reports from important committees and items of interest to the library profession will be covered in the new insert. Do let us hear your suggestions for improvements in coverage.

EUGENE B. JACKSON, *President*

A continuing effort in the public relations program of any professional society is that of improving the "image" of the profession. The Board of Directors of the American Chemical Society, looking in the mirror, was concerned enough by what it saw to authorize a comprehensive survey of member opinion by Social Research, Incorporated. The results of the survey, which appeared in the March 13, 1961, issue of *Chemistry and Engineering News,* will be of particular interest to SLA members who are concerned with our professional status.

SLA's Executive Board intends to take action in this matter, once it has some indication from the membership of how it might proceed. One member of the Association, Loyd Rathbun, Chairman of the Executive Committee of Librarians Associated in Los Angeles, has very specific suggestions. Professional status is very much on Mr. Rathbun's mind, because the specific aim and program of Librarians Associated is to improve the public's image of the librarian.

He suggests that much can be accomplished by small groups working independently throughout the country. This implies an active program among the SLA Chapters. His second suggestion is to emphasize in all aspects of the Association's program the *special librarian* rather than the special library. SLA is not an association of libraries—it is an association of librarians.

Another view that has been expressed is that the professional status of the special librarian is at a high enough level not to require a specific program. Supporters of this view point out that industry's need for libraries within the past 20 years has resulted in the recognition of the librarian as a professionally trained specialist. SLA has strengthened the profession by defining qualifications for membership and by undertaking a program of defining standards.

The question is—are we doing enough to ensure that our public thinks as much of us as we think it should? If not, what should we do, and how should it be done? Replies in the form of "Letters to the Editor" of *Special Libraries* will be welcomed.

JOHN P. BINNINGTON, *Chairman,* Public Relations Committee

The Council of National Library Associations (CNLA) held its fall meeting in New York City on November 17, with the Chairman, James Mack, presiding. Fifteen to 20 members were present during the day-long discussions, among them Winifred Sewell and Bill M. Woods as SLA's official representatives. A matter of perennial concern is the general lack of knowledge about or interest in CNLA by members of the library community, and all member associations were urged to report to their memberships on CNLA programs, as SLA is doing through the medium of this news supplement. ALA will probably prepare and issue press releases on CNLA activities on a regular basis.

The Joint Committee on Library Education reported that: *1)* a study of the function and role of the Committee is being made by Katharine L. Kinder; *2)* Harold Roth is making progress in his report on the common core of library education; and *3)* the Manpower Study proposal of the Committee is being rewritten. The formerly independent Joint Committee on Library Work as a Career has recently become a CNLA committee, and Alphonse F. Trezza spoke on the Committee's efforts to coordinate the recruitment activities of all library organizations.

An ad hoc committee, Robert Kingery, Chairman, was appointed to investigate measures being taken to preserve essential library materials in the event of a national emergency. This group may recommend the organization of a joint committe to further such measures or the reactivization of the former Joint Committee for the Protection of Cultural and Scientific Resources, which functioned after World War II.

The American Association of Library Schools reported that it was sponsoring the preparation of a new, fourth edition of *Who's Who in Library Service.* The Grolier Society has agreed to underwrite the project, and the compilation and editorial work will be done at the University of Pittsburgh. Another basic library reference which CNLA has co-sponsored for a number of years is the *American Library & Book Trade Annual,* published by the R. R. Bowker Company. The 1962 edition, now available, has a new title, *Bowker Annual of Library and Book Trade Information.*

Last January the Program Committee held a meeting, which was sponsored by the Council on Library Resources, of library leaders in the United States who discussed the future role and functions of CNLA (*see Special Libraries,* February 1961, p. 101-2). One of the specific suggestions made at that time was that the Council could be strengthened by having a permanent secretariat and an ad hoc committee has now been appointed to study the possibilities of establishing such a secretariat, including the duties of the secretary, location, size of staff, budget, source of funds and the effects it would have on CNLA's constitution and bylaws. Another recommendation being implemented is that other library and library-oriented organizations are being asked to join the Council.

The CNLA Joint Committee of Exhibit Managers now has seven members, including SLA. Edwin Castagna of the Enoch Pratt Library has accepted the chairmanship of the newly formed Joint Committee on Library Problems Related to the Peace Corps.

Marguerite von Geyr, Administrative Associate to the Chairman of the ASA Z-39 Committee, reported that Z-39 is developing projects in four areas of bibliographic standardization: *1)* transliteration; *2)* abstracts; *3)* layout of publications; and *4)* standard abbreviations of periodical titles.

As part of the six-year-old ALA International Relations Committee-Department of State program of bringing librarians from abroad to the United States, a multinational group of 14 librarians are currently observing American librarianship throughout the country in an intensive work-study program. SLA participated in this program by serving as host to Horst Ernestus during part of his internship period.

Mr. Ernestus is the Executive Secretary of the Deutscher Büchereiverband e.V. (Association of German Public Libraries) in the Federal Republic of West Germany and West Berlin. His organization represents the public library field to other associations, the government and the public at large, strives to promote the study of library science and librarianship and assists its members through publications and services in a variety of areas. Mr. Ernestus is also Deputy Head of the Study Center for Public Libraries, which is supported by a government grant and is somewhat similar in activities and objectives to the Library Services Branch of the Department of Health, Welfare and Education.

Mr. Ernestus spent the first week of December at Association Headquarters observing procedures of an American library association and talking with members of the professional staff about policies, programs, publications, public relations, financing, organization and association services. He also attended a Finance Committee and Chapter Group meeting, met a number of prominent special librarians and visited several special libraries in the metropolitan area. While in Chicago, where he will spend three weeks at ALA headquarters, Mr. Ernestus will visit the SLA Translations Center. Later he will tour public, state and county library systems in Washington, California and Louisiana.

The Executive Board has adopted the following resolution, which has been forwarded to Mongi Slim, President of the Sixteenth Session of the General Assembly of the United Nations:

Resolved, that the Officers and the Executive Board of the Special Libraries Association express their deep and lasting sorrow over the death of

Dag Hammarskjöld

A man of peace, a scholar, a friend of all mankind, his loss is deeply regretted. His service to the cause of peace and understanding among nations, and his personal efforts to further these concepts will always remain an inspiration to all men of good will.

And Further Resolved, that this brief expression be spread upon the minutes of the Association; and that a copy of these resolutions be forwarded to the President of the United Nations General Assembly.

Chapters to be visited by President Eugene B. Jackson in the spring of 1962 are:

Oak Ridge—March 19
Alabama—March 22
Louisiana—March 24
Baltimore—April 11

Chapters to be visited by Ethel Klahre, First Vice-President and President-Elect, during the spring of 1962 are:

Heart of America—January 19
Michigan—March 20
Oklahoma—April 28
Rio Grande—May 3
Texas—May 5

A supplement to the *Official Directory of Personnel 1961-62* has been issued by Association Headquarters. It notes address changes and new members on Association, Chapter and Division committees, but the following two additions should be particularly noted: 1) DR. PAUL KRUSE, Librarian, Golden Gate College, 220 Golden Gate Avenue, San Francisco 2, California has replaced Lewis Bright as CHAIRMAN OF THE INTERNATIONAL RELATIONS COMMITTEE; 2) GORDON E. RANDALL, Manager, IBM Research Library, Yorktown Heights, New York, is the new SLA REPRESENTATIVE TO THE ALA LIBRARY TECHNOLOGY PROJECT.

All pre-1959 Associate members who have not already done so are urged to complete and return to Association Headquarters the application forms marked "Associate Review," which were mailed out on November 1, 1961. The Admissions Committee is anxious to receive these forms, even though a change in an individual's class of membership is voluntary.

President Eugene B. Jackson and the Executive Secretary, Bill M. Woods, represented the Association at the dedication ceremonies of the new National Library of Medicine in Bethesda, Maryland, on December 14 and 15, 1961.

Alberta L. Brown and Dr. I. A. Warheit have accepted appointments as consultants to the Special Libraries Committee. Their primary duties will be to advise on the general content of the journal, make suggestions for coverage of specific topics and special issues, recommend potential authors and referee papers on technical or controversial subjects.

Report of the Treasurer

I respectfully submit the financial statements of the Special Libraries Association for the year ended September 30, 1961, including the statement of assets and fund balance and the summary of changes in special fund balances. The report of Price Waterhouse & Co., who examined the financial statements, is included herewith.

OLIVE E. KENNEDY, *Treasurer*

EXECUTIVE BOARD OF
SPECIAL LIBRARIES ASSOCIATION

In our opinion, the accompanying statements present fairly the assets of Special Libraries Association at September 30, 1961 resulting from the cash transactions, and the income collected, expenses disbursed and changes in fund balances for the year, and are presented on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accounts of the Association are maintained on the basis of cash receipts and disbursements, and accordingly reflect amounts collected at September 30, 1961 for dues and periodical subscriptions applicable to subsequent periods aggregating approximately $30,300; the corresponding amount at September 30, 1960 was approximately $29,950. The accounts at September 30, 1961 do not reflect interest earned but uncollected of approximately $5,000 nor expenses incurred but not paid of approximately $6,500, comprising principally amounts payable to the John Crerar Library; the corresponding respective amounts at September 30, 1960 were approximately $4,600 and $7,000.

PRICE WATERHOUSE & CO.

56 Pine Street, New York 5, New York
November 3, 1961

EXHIBIT I

SPECIAL LIBRARIES ASSOCIATION

STATEMENT OF ASSETS RESULTING FROM CASH TRANSACTIONS
SEPTEMBER 30, 1961

Assets

General fund:	
Cash, including savings accounts of $40,494.20	$ 70,357.81
General reserve fund:	
Cash in savings account	13,818.97
United States Government securities, at cost (approximate market value $38,100)	32,768.41
Marketable security, at cost (approximate market value $5,100)	4,984.56
	51,571.94
Life membership fund:	
Cash	3,196.97
Publications fund:	
Cash, including savings accounts of $22,786.64	30,780.02
Scholarship and student loan fund:	
Cash in savings accounts	10,372.35
Loans receivable	3,100.00
	13,472.35
Eleanor S. Cavanaugh Scholarship fund:	
Cash in savings account	1,264.49
Translations Center fund:	
Cash	50,313.01
Equipment reserve fund:	
Cash	2,000.00
SLA Birthday fund (John Cotton Dana lectures):	
Cash	40.00
	$222,996.59

EXHIBIT I (continued)

Fund Balances

General fund (Exhibit II)	$ 70,357.81
Special funds (Exhibit III):	
General reserve fund	51,571.94
Life membership fund	3,196.97
Publications fund	30,780.02
Scholarship and student loan fund	13,472.35
Eleanor S. Cavanaugh Scholarship fund	1,264.49
Translations Center fund	50,313.01
Equipment reserve fund	2,000.00
SLA Birthday fund (John Cotton Dana lectures)	40.00
	$222,996.59

EXHIBIT II

SPECIAL LIBRARIES ASSOCIATION

STATEMENT OF INCOME COLLECTED, EXPENSES DISBURSED AND CHANGES IN GENERAL FUND BALANCE

FOR THE YEAR ENDED SEPTEMBER 30, 1961

	Actual	Budget
Income collected:—		
Dues	$ 85,764.18	$ 86,800.00
Periodicals:		
Special Libraries	26,671.91	22,880.00
Technical Book Review Index	13,191.20	13,300.00
Net receipts from convention (after payment of expenses, excluding headquarters' expenses, totaling $18,973.22)	11,812.47	6,500.00
Interest on funds in savings bank accounts	1,317.75	1,300.00
Addressing service	3,590.80	2,000.00
Membership directory sales	3,503.71	1,500.00
Miscellaneous	500.86	500.00
Total income	146,352.88	134,780.00
Expenses disbursed:—		
Allocation of funds to subunits:		
Chapters	10,152.30	10,700.00
Divisions	3,730.88	4,940.00
Committees	4,888.50	6,355.00
	18,771.68	21,995.00
General operations:		
Salaries	50,930.53	53,500.00
Placement consultant	624.20	625.00
Rent	4,140.00	4,140.00
Postage	3,087.02	2,800.00
Supplies	3,979.50	3,600.00
Payroll taxes	3,445.38	3,300.00
Porter service	1,215.00	1,200.00
Accounting and legal counsel	1,508.38	1,550.00
Telephone and telegraph	1,381.01	1,275.00
News bulletin	832.86	700.00
Equipment service and repairs	864.89	700.00
Building repair and maintenance		140.00
Executive Board meetings	591.90	300.00
Insurance	558.49	520.00
Library materials	142.59	200.00
Miscellaneous	435.81	100.00
	73,737.56	74,650.00
Carried forward	92,509.24	96,645.00

EXHIBIT II (continued)

	Actual	Budget
Expenses disbursed (brought forward)	92,509.24	96,645.00
Periodicals:		
Special Libraries	34,505.70	32,665.00
Technical Book Review Index	10,691.21	10,965.00
President's travel	1,359.43	1,700.00
Expenses of executive secretary and assistant	504.02	590.00
Equipment purchases	1,090.58	1,100.00
President's fund	120.82	200.00
Memberships in other organizations	469.00	390.00
Membership Directory	3,400.69	2,500.00
Headquarters' convention expenses	5,944.42	3,500.00
Equipment reserve (Exhibit III)	500.00	500.00
Publication services to sustaining members	241.75	300.00
Cumulative Index	1,005.00	1,000.00
Total expenses disbursed	152,341.86	152,055.00
Excess of expenses disbursed over income collected	5,988.98	$ 17,275.00
Fund balance, September 30, 1960	72,130.37	
	66,141.39	
Add:		
Transfer from general reserve fund (Exhibit III)	4,000.00	
Transfers from life membership fund (Exhibit III)	216.42	
Fund balance, September 30, 1961 (Exhibit I)	$ 70,357.81	

EXHIBIT III

SPECIAL LIBRARIES ASSOCIATION

SUMMARY OF CHANGES IN SPECIAL FUND BALANCES FOR THE YEAR ENDED SEPTEMBER 30, 1961

General Reserve Fund

Interest received on United States Government securities and savings bank account	$ 1,196.35
Transfer to general fund (Exhibit II)	(4,000.00)
Balance, September 30, 1960	54,375.59
Balance, September 30, 1961 (Exhibit I) (note)	$ 51,571.94

Life Membership Fund

Interest on savings bank account	$ 118.96
Transfers to general fund, including interest of $116.42 on savings bank account for prior period (Exhibit II)	(216.42)
Balance, September 30, 1960	3,294.43
Balance, September 30, 1961 (Exhibit I)	$ 3,196.97

Publications Fund

Proceeds from sales of publications	$ 14,165.13
Interest on savings bank accounts	831.46
	14,996.59
Production and selling expenses	13,254.15
Excess of income over expenses	1,742.44
Balance, September 30, 1960	29,037.58
Balance, September 30, 1961 (Exhibit I)	$ 30,780.02

EXHIBIT III (continued)

Scholarship and Student Loan Fund

Income:	
Gifts	$ 5,120.85
Interest on savings bank accounts and student loans	332.91
	5,453.76
Scholarship grants	(3,650.00)
Balance, September 30, 1960	11,668.59
Balance, September 30, 1961 (Exhibit I)	$ 13,472.35

Eleanor S. Cavanaugh Scholarship Fund

Interest on savings bank account	$ 91.44
Scholarship grants	(1,750.00)
Balance, September 30, 1960	2,923.05
Balance, September 30, 1961 (Exhibit I)	$ 1,264.49

Translations Center Fund

Grant from National Science Foundation	$ 15,500.00
Receipts for services rendered to Department of Commerce	20,000.00
Other	663.00
	36,163.00
Salaries and expenses	(67,216.56)
Excess of expenses over income	(31,053.56)
Balance, September 30, 1960	81,366.57
Balance, September 30, 1961 (Exhibit I)	$ 50,313.01

Equipment Reserve Fund

Transfer from general fund (Exhibit II)	$ 500.00
Balance, September 30, 1960	1,500.00
Balance, September 30, 1961 (Exhibit I)	$ 2,000.00

SLA Birthday Fund (John Cotton Dana Lectures)

Payments to lecturers	($ 150.00)
Balance, September 30, 1960	190.00
Balance, September 30, 1961 (Exhibit I)	$ 40.00

NOTE: At September 30, 1961, the balance of the General Reserve Fund was $1,571.94 in excess of the $50,000 limit placed on this fund by the Executive Board.

Correction: There was an error in the 1961-62 income column in the summary of the budget given on page 2 of the November 1961 *Special Libraries Association Bulletin.* $300 was given for the Addressing Service income; the correct amount is $3,000.

Convention Schedules for the next ten years are: 1962 — Washington, D. C., Sheraton-Park and Shoreham Hotels, May 27-31; 1963 — Denver, Denver Hilton Hotel, June 9-13; 1964 — St. Louis, Sheraton-Jefferson and Statler Hotels, June 7-11; 1965 — Philadelphia, Benjamin Franklin Hotel, June 6-10; 1966 — Minneapolis, Radisson Hotel, May 29-June 2; 1967 — New York City, Hotel Commodore, May 28-June 1; 1968 — Los Angeles, Statler-Hilton, June 2-7; 1969 — Montreal; 1970 — Detroit; 1972 — Boston.

The Mid-Winter Meeting of the Executive Board and Advisory Council will be held at the Dearborn Inn, Dearborn, Michigan, February 15-17, 1962.

SLA Sustaining Members

The following organizations are supporting the activities and objectives of the Special Libraries Association by becoming Sustaining Members for 1962.

ABBOTT LABORATORIES LIBRARY, North Chicago, Illinois
AEROJET-GENERAL CORPORATION, Technical Information Office, Sacramento, California
AMERICAN CAN CO., Barrington, Illinois
AMERICAN CANCER SOCIETY, New York, New York
AMERICAN TOBACCO COMPANY, Research Laboratory, Richmond, Virginia
BACHE AND COMPANY, New York, New York
BETHLEHEM STEEL COMPANY, Bethlehem, Pennsylvania
BOEING COMPANY, Seattle, Washington
R. R. BOWKER COMPANY, New York, New York
CENTRAL VERMONT PUBLIC SERVICE CORPORATION, Rutland, Vermont
CHIVERS BOOKBINDING COMPANY, Staten Island, New York
CIBA PHARMACEUTICAL PRODUCTS INC., Summit, New Jersey
CONSOLIDATION COAL COMPANY, Research & Development Division, Library, Pennsylvania
CONTINENTAL CARBON COMPANY, Houston, Texas
CORNING GLASS WORKS LIBRARY, Corning, New York
DALLAS PUBLIC LIBRARY, Dallas, Texas
DOW CHEMICAL COMPANY, Chemical Library, Midland, Michigan
DOW CHEMICAL COMPANY, Rocky Flats, Denver, Colorado
E. I. DU PONT DE NEMOURS & COMPANY, Lavoisier Library, Wilmington, Delaware
E. I. DU PONT DE NEMOURS & COMPANY, Technical Library, Wilmington, Delaware
EASTMAN KODAK COMPANY, Research Library, Rochester, New York
ESSO RESEARCH & ENGINEERING COMPANY, Technical Information Division, Linden, New Jersey
FORD FOUNDATION, New York, New York
GENERAL ELECTRIC COMPANY, Schenectady, New York
GENERAL MOTORS CORPORATION, Public Relations Library, Detroit, Michigan
B. F. GOODRICH RESEARCH CENTER, Brecksville, Ohio
HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION, Boston, Massachusetts
KAISER ALUMINUM & CHEMICAL CORPORATION, Spokane, Washington
MINNEAPOLIS-HONEYWELL REGULATOR CO., Minneapolis, Minnesota
MINNESOTA MINING & MANUFACTURING COMPANY, St. Paul, Minnesota
NATIONAL BANK OF DETROIT, Detroit, Michigan
NATIONAL CASH REGISTER COMPANY, Dayton, Ohio
NATIONAL LEAD COMPANY, Niagara Falls, New York
NEW YORK TIMES, New York, New York
PACIFIC LIBRARY BINDING COMPANY, Los Angeles, California
PENNSYLVANIA STATE UNIVERSITY, Pattee Library, University Park, Pennsylvania
PITTSBURGH PLATE GLASS COMPANY, New Martinsville, West Virginia
PORT OF NEW YORK AUTHORITY, New York, New York
PRENTICE-HALL, INC., Englewood Cliffs, New Jersey
PROCTER & GAMBLE COMPANY, Technical Information Service, Cincinnati, Ohio
RAND CORPORATION, Santa Monica, California
ROCKEFELLER OFFICE LIBRARY, New York, New York
ROHM & HAAS COMPANY, Philadelphia, Pennsylvania
ROYAL BANK OF CANADA, Montreal, Quebec, Canada
SHELL DEVELOPMENT COMPANY, Technical Information Services, Emeryville, California
SPACE TECHNOLOGY LABORATORIES, Redondo Beach, California
SQUIBB INSTITUTE FOR MEDICAL RESEARCH, New Brunswick, New Jersey
STANDARD OIL COMPANY OF CALIFORNIA, Library, San Francisco, California
STECHERT-HAFNER, INC., New York, New York
TEXAS GAS TRANSMISSION CORPORATION, Owensboro, Kentucky
J. WALTER THOMPSON COMPANY, New York, New York
TIME, INC., Editorial Reference Department, New York, New York
UNION ELECTRIC COMPANY, St. Louis, Missouri
UNITED STATES STEEL CORPORATION, New York, New York
UNIVERSITY OF MINNESOTA LIBRARY, Minneapolis, Minnesota
UNIVERSITY OF TEXAS, Dental Branch Library, Houston, Texas
UPJOHN COMPANY, Kalamazoo, Michigan
H. W. WILSON COMPANY, New York, New York
WORCESTER FREE PUBLIC LIBRARY, Worcester, Massachusetts

EDITOR'S NOTE: This list includes all applications received through December 11, 1961.

tions that ten per cent of the Japanese literature in chemistry and biology may be currently covered by major United States abstracting services.

Similar cooperative programs are being encouraged between Japanese professional societies and their United States counterparts. For example, Japanese groups were advised if they were willing to translate certain scientific journals into English that NSF would provide funds to the appropriate American society to cover the necessary costs.

Programs Abroad

Finally, there is the translation program that is being conducted overseas through the use of foreign currencies that have accrued to the credit of the Government of the United States through the sale of agricultural surplus products. In 1958 the Congress authorized use of these currencies for scientific information purposes by federal agencies under the leadership of the National Science Foundation. Whereupon NSF immediately called together science information people from a half dozen agencies, and on a cooperative basis a program was formulated to obtain the translation of scientific material which otherwise might never be translated. Originally, it appeared that programs might be mounted in five countries. However, it developed that foreign currencies for this specific use were to be available in Israel, Poland and Yugoslavia. Negotiations were instituted, and by early spring of 1959 a contract was in effect with Israel, by the fall of 1959 with Poland and in the spring of 1960 with Yugoslavia.

Initially, scientists in the participating Government agencies were solely responsible for the selection of material for translation. Later on, academic institutions and professional societies were encouraged to submit lists of candidate material for translation, and also scientists in the three countries are recommending material for translation.

In Israel, Russian material is being translated; in Poland, Polish material; and in Yugoslavia, Serbo-Croatian literature. Under contracts currently in force, it is anticipated that some 80,000 English pages will be produced. Initially, all material was transmitted to the United States, as manuscript translation, for editing—primarily by the scientists making the selection. As experience was gained, however, it was no longer necessary to do all editing here. Sufficient numbers of copies are printed in the three countries and shipped to the United States to satisfy agency requirements and provide a supply to OTS for public sale at an average of one cent per page. These translations, together with work in process, are announced in *Technical Translations.*

In addition to the translations which are being produced, abstracts of Soviet and Polish literature are being obtained. A cooperative abstracting program between *Biological Abstracts* and our program in Israel has been developed to enable *BA* to broaden the scope of its coverage of Russian biological literature. Too, arrangements have been completed for the translation of Swiss patents and the compilation of comprehensive subject bibliographies. In Poland, we have been successful in establishing a program for simultaneous production of certain journals in English. The Poles are currently publishing Polish and English versions of the journals *Acta Biochemica Polonica* and *Nucleonica.* It is hoped to broaden this program to include perhaps a dozen journals.

In summary, the National Science Foundation is coordinating the administration of this program on behalf of the: Atomic Energy Commission; the Departments of Agriculture, Interior, Commerce, Health, Education and Welfare; the National Aeronautics and Space Administration; and the Smithsonian. Subject to action of the Congress on the Foundation's budget submission for fiscal year 1962, it is planned to conduct exploratory programs in India, the United Arab Republic and two or three of the larger South American countries. It is our considered opinion that herein lies a splendid opportunity to make available the results of foreign scientific research to the scientific community of the United States on a measurably larger scale; to assist scientists in the countries to enhance their income and to promote a very real feeling of international scientific cooperation on the part of those who are participating in this program.

"Japlish," the Japanese Brand of English

RUDOLPH O. SEITZ, Information Specialist
Air Reduction Company, Inc., Murray Hill, New Jersey

IT IS A MATTER of common knowledge that there are very few English-speaking people capable of reading and translating Japanese technical material. On the other hand, most educated Japanese, particularly among the younger generation, have some command of English. Many have attended or are attending American colleges, and it is from this group that most of the translators have to be recruited. Since Japanese immigration to the United States is severely restricted, it is mostly the Japanese graduate students studying in this country who can be called upon for doing translations. While it is difficult enough to find subject specialists, it is even more difficult to find individuals with a sufficient command of idiomatic English.

In view of the idiosyncracies of the Japanese language and system of writing, it is not surprising that the mastery of Japanese by Westerners is such an arduous and discouraging job; but there is plenty of evidence that the acquisition of proficiency in English by Japanese-speaking individuals is likewise very difficult.

The business of murdering the King's English is, of course, not confined to the Far East, but the difference is that there it is done openly, unashamedly and in print. In the case of Chinese, it has led to the development of pidgin English, which has become an accepted and successful medium of communication in trade and commerce. The mangling done by the Japanese has not gone nearly as far, but there is a kind of hybrid Japanese-English construction known under the name of "Japlish." It is deplored by the more scholarly and may be on the wane, but it continues to exist and to cause confusion or merriment or both.

Fosco Maraini, in his book *Meeting with Japan* (Viking, 1959), quotes some prize-winning examples, such as the sign "Ladies have fits upstairs" outside a tailor's shop, and "Every client promptly executed" outside a barber shop. About a year ago the New York *Times* reported on a minor uproar over new bilingual traffic signs, which because of their unusual wording made the purists see red. Nevertheless, the national police authorities saw nothing wrong in these signs that read "May Parking," "May Parking and Stopping," "Section for Sounding Horn" and, more puzzling, "Right Turn Toward Immediate Outside."

I do not wish to imply that all the English language parts of the technical journals are filled with such jargon. Some of these renderings are above reproach, some are only slightly tainted, but some others should definitely have been purged before going to the printer. As an example of the particular usage encountered in print, I would like to quote portions of an editorial published in one of the better known journals.

"Since the termination of the World War II, the Japanese iron and steel industry has trodden on the way of hardship. . . . Nevertheless, the fact that Japan has assumed the full power to endure international concurrence brings a feeling of the highest happiness for the sake of the Japanese. . . . Above all, it is worth stating that Japan cultivated her original regions prior to other countries in the fields of beneficiation of ores for pig-making. . . . Such iron and steel studies have been proceeded by research activities of universities, national technical research institutes for metallic materials and relevant enterprises. As a recent tendency, especially, steel enterprises have actively tended to establish something of the cen-

Presented at the New Jersey Chapter's meeting, "Japanese Technical Information," held in Princeton, New Jersey, April 17, 1961.

tral research institute respectively and to be ready for actual research behaviors. Moreover, as another trend of recent technical developments, a cooperative research has become gradually flourished owing to the intensification of techniques and maximizing of research scales. The Steel Technology Joint Research Society [sic] established in 1954 . . . have been managed vividly in successive years. . . ."

In this particular instance, where the text is of a more general nature, the oddities do not really mar the meaning of the message. However, amusement often ceases and turns into outright frustration in the case of technical report material where there is the need to convey precise information. Under these circumstances, patient and judicious editing becomes absolutely essential if the translator's efforts are not to be wasted.

Transliteration Difficulties

The fact that a large number of English terms, both technical and nontechnical, have become part of the Japanese vocabulary might at first sight be considered a blessing. However, because of the syllabic nature of the Japanese language and, particularly, because of the absence of certain consonants, many of these terms are difficult to recognize in their transliterated form.

To be more specific, the letter "r" is substituted for "l," since Japanese does not have a symbol to express an "l" sound. Then, certain pairs of consonants are commonly confused: b and v, d and j, f and h. Since Japanese has no separate form for the plural, imported English words are always given in the singular. Finally, the insertion of vowels to break up clusters of consonants accounts for much of the awkward spelling of transliterated foreign words.

Some names and terms like Tobin (in Tobin bronze), Abbe (in Abbe refractometer), Buna, Peru (in Peru balsam) fit perfectly into the Japanese scheme of spelling and come through the transliteration unscathed. Others are only slightly disfigured, for example "dainamaito" is obviously dynamite and "zigu-zagu" comes close enough to zig-zag. However, there is no joy of immediate recognition when it comes to proper names such as the following:

ongusutorōmu	for	Angstrom
guriniyāru	for	Grignard
kerudaru	for	Kjeldahl
jizeru	for	Diesel
uddo	for	Wood (in Wood's metal)
hoiitosutōn	for	Wheatstone (in Wheatstone bridge)

Familiar words become unrecognizable as in:

terebijion	for	television
erekutoronikusu	for	electronics
purasuchikkusu	for	plastics
poriechiren	for	polyethylene
haidorosutachikku puresu	for	hydrostatic pressing

It is also interesting that there are at least a dozen Japanese technical journals that bear transliterated English names, such as:

Manējimento
Rābā Daijesuto
Chitanyumu (Titanium)
Mashinari
Enjiniyaringu
Materiaru
Semento Konkurito

I believe that the transliteration of English terms into Japanese could be developed into an amusing parlor game. After mastering the rules of transliteration, the players would try to stump each other with the most vicious transliterations they could think of.

Confusion is also created by some authors who introduce English terms of their own coining, which are at variance with accepted native American usage. If the translator is not aware of such a trap, he will simply take over the term as it stands and unwittingly confuse the reader.

Symbolic Terminology

The frequent use of borrowed foreign terms does not mean that the native Japanese technical vocabulary is limited. On the contrary, there is a highly developed and growing body of technical terms based on the Chinese characters introduced into Japan centuries ago. Since these characters are a modified form of picture-writing, they can

convey an idea more quickly and directly through the eye than through the corresponding phonetic concept that is the basis of our system of communication. The Sino-Japanese ideographs are really first cousins to the stylized little line drawings used by electronics engineers to describe equipment components without the use of words. As a result of standardization, these symbolic pictures are comprehended visually all over the world, much like mathematical and chemical formulas. By forming compounds of two, three or more Chinese characters, the Japanese, and also the Chinese, have been able to build up a very large number of terms that are highly functional and not just descriptive as are many Western technical terms.

As a matter of fact, this method of creating a new terminology has been so efficient and adaptable that the efforts to modernize the Japanese written language by replacing the existing system with the Roman alphabet have been more or less abandoned, and the Japanese are now more than ever committed to the continued use of Chinese characters in technical writing. There is the difficulty, however, that there are so many characters of closely related meaning that the same concept or object can be represented in various ways depending on the writer's point of view. The resulting wealth of synonyms is a great burden on the translator, which, it is hoped, may be eased by some degree of standardization of terminology.

Complex Syntax

The struggle with single words or isolated expressions, frustrating though it may be at times, is really not the most difficult problem facing the translator. The real stumbling block is the Japanese syntax, which, for occidentals at least, makes a normal Japanese sentence into a grammatical monstrosity. Stanley Gerr, in a 50-page tract on "Scientific and Technical Japanese" written in 1944, says this about Japanese sentence structure:

"It is safe to assert that the language suffers from certain basic structural defects which seriously impair its effectiveness as a scientific means of communication. These are: excessive length and diffuse protracted complexity of the sentence . . . ; the rigidly observed and abnormally sustained Japanese word order which without exception requires all modifiers, however complex and however numerous, to precede the words or concepts they qualify, while relegating the all-important verb to the very end of the statement; the use of certain indefinite verb and adjective forms in compound sentences; the frequent omission of the subject of the sentence; and the excessive use of grammatically and logically superflous embellishments."

Gerr then proceeds to illustrate his argument with some typical examples. For the sake of brevity I shall select only one—a sentence from a treatise on "The Strength of Ships," which dealt with the relative position of ship and wave. In the original word order the sentence sounds like this:

"Standard calculations as for already stated like, the ship its own length that same wave length's wave in, and its central cross section the wave crest (or wave trough) that in harmony fashion riding instance in's bending moment and shear stress being given are but, wave and vessel ceasing-not advancing are because, ship and wave's relative position in what way depending on, perhaps standard conditions than even greater bending moment and shear stress arise whether known-is not."

To extract the true meaning from this jumble of words is quite a feat. Taken apart and reassembled in meaningful order the sentence reads as follows:

"As has already been stated, the bending moment and shear stress are given in the standard calculations for the two cases where, the length of the ship and that of the waves being equal, either the crest or the trough of a wave is amidships. However, since both ship and wave are continually advancing, it is not known whether even greater bending moments and shear stresses than those of the standard conditions are produced depending somehow on the relative position of ship and water."

This and the other examples given by Gerr indicate that attack from the rear is the best method of tackling a Japanese sentence. Something like giving a running translation appears to be extremely difficult.

Role of the Translation Editor

If, as I hope, I have succeeded in working up some sympathy for the Japanese translator, I believe that the translation editor should also have his or her share.

The least complicated part of the editor's task is to correct misspellings, to convert singulars into plurals and vice versa, and to insert or delete definite and indefinite

articles. Since in Japanese there is no distinction between singular and plural, and since ordinary articles are not used, it depends on the linguistic instinct of the translator to supply the missing pieces. The proper handling of the articles seems to be rather difficult for most Japanese. When it comes to the correction of awkward expressions and outright mistranslations, a slightly higher degree of judgment is required on the part of the editor. Let me illustrate this point with examples from my personal collection:

"When the sample dried in air was heat-treated, the sample was toasted and risen." (When the air-dried sample was heat-treated, it became scorched and puffed up.)

"The water in the apparatus was taken out downward." (The water was drained.)

"This collection was followed by Raoult's law . . ." (This correction was made according to R.'s law . . .).

"The diffraction pattern of the film specimen was photographed on a gusset plate." (Here, the gusset plate turned out to be a photographic plate in a cassette.)

"When a small amount of oxygen is present, carbon formed is not greatly increased, but the outlook becomes fine powder." (The carbon is in the form of fine powder.)

"The number of performing the above experiments are not enough to conclude the results." (The number of tests was too small to draw definite conclusions.)

"It is believed that this invention is entirely new method which cannot be analogized by common sense." (. . . which could not have been anticipated.)

"Both the vapor pressure and the absorption pressure are measured by the same thermometer." (The same thermometer was used to measure the temperature at which both the vapor pressure and the absorption pressure were determined.)

And finally, I recall the occasion when my study of Japanese grammar had prepared me to recognize the reason behind the translator's odd construction. To illustrate the fact that in Japanese intransitive verbs can be used in passive construction, the grammar gave as an example the following literal translation: "he was died by his son," which means that he had lost his son by death. Therefore, when I read in a description of a toxicity test that three of the five carp used for the test were "dyed," I knew right away that, in spite of the misspelling, the poor fish had not changed color but had succumbed to the toxic material.

The Japanese word order exercises a subtle influence even on the experienced translator, and it frequently becomes necessary to rearrange a sentence for a more logical emphasis or for a more meaningful relationship between the parts of the sentence. Since Japanese sentences are often inordinately long and involved, it may be wise to break them up into two or more shorter sentences. At times the phrasing of a sentence is too obscure for the editor to extract any meaning from it. In that case, he had better get together with the translator and have the passage explained in the translator's own words. If the editor has sufficient knowledge of the subject, he may propose various versions of his own that make sense to him in the given context and have the translator confirm whether this interpretation does justice to the original. The unlocking of the meaning of the following sentence was accomplished in this manner. The first translation read as follows:

"It was observed that the gas under critical condition was primarily exhausted when the oxidation of aldehyde was unusually carried out." As it stood, the sentence made no sense. After some haggling between the translator and the editor, the following interpretation was arrived at:

"It was observed that the composition of the exhaust gas was within the explosive concentration range chiefly during the period between the start of the aldehyde oxidation and the time when the reaction proceeded at a steady rate." Here, one might feel tempted to say that any resemblance between the two sentences is purely accidental.

If this two-man approach fails to produce satisfactory results, or if the editor's assurance wavers, it becomes advisable to enlist the help of a subject specialist. Such a triple alliance often works wonders.

Nevertheless, there are occasions when the puzzle is too intricate to be solved on the spot, no matter how many experts are called

upon. This may happen particularly in the case of internal company reports, which, not unlike their counterparts in the United States, are sloppily written, replete with unfamiliar abbreviations and spiked with laboratory jargon. If the information is considered important enough to warrant the delay, the only thing to do under these circumstances is to write to the author himself and ask for clarification.

From what has been said, it must be clear that the problem of increasing the quantity and improving the quality of Japanese technical translations cannot be solved easily or quickly. Since the allusive vagueness and the lack of unequivocal meaning make the Japanese language a difficult vehicle for the communication of abstract thought and for scientific discussion, the Japanese translator must be possessed with a high degree of perception and with a knack for finding the most logical interpretation of obscure passages. This calls not only for unusual gifts but also for a long period of laborious language training. Unless the compensations, material and otherwise, are commensurate with the effort required, the number of recruits is bound to remain small.

Survey of Translation Activity in The United States and Canada

ALBERTA L. BROWN, Consultant, Translations Survey
Kalamazoo, Michigan

SPECIAL LIBRARIANS, particularly in the fields of science and technology, have been concerned with translation activity for many years. The outbreak of World War II early pointed up the need for scientific and technical knowledge in foreign languages. Long before sputniks coursed the skies or before the results of Russian scientific research became important, members of the Special Libraries Association began making plans for a Translation Pool.

The Translation Pool in 1944 was a small enterprise that listed on cards available translations. It has grown in 17 years to an operation that is an important service in the information and research fields. Originally it was a simple bibliography that could be consulted for available material; today it is a depository for over 55,000 actual translations. The Translations Center is a giant cooperative, nonprofit effort created by librarians to serve research in the fields of science and technology.

Based on a talk presented at a number of SLA Chapter meetings during the Fall of 1961.

The Language Gap

Mid-century scientific research is not confined to the borders of a single country, hence the problem of the language barrier is acute. In the United States we have been negligent in the matter of proficiency in foreign languages, though many scientists read French and German well enough to get by in their own fields. The upsurge of Russian science has created a serious problem, and there is every likelihood that before we are over the Russian hurdle we will be confronted with the problems of both Japanese and Chinese. SLA's Translations Center is one important bridge in this language gap.

Translation Centers in Other Countries

"In 1958, the United States Government embarked on a foreign translation program, and appropriated $1,200,000 for translation work in certain countries. To date, contracts under this program have been signed with Israel, Poland, and Yugoslavia, calling for the translation of over 50,000 pages of text from Russian and other East European lan-

guages. The completed translations will be edited, printed, and sold in the United States through the Office of Technical Services, U. S. Department of Commerce.

"As further impetus for rapid exchange of translations between Europe and the United States, two international translation centers have been established in Europe. . . . The first, known as the European Translation Centre, was created in October, 1960, by one of the twelve member countries of the European Productivity Agency (EPA). Its purpose will be to notify industry and research of all existing Western European language translations from Russian and East European scientific and technical literature and to make available those which cannot be obtained through commercial channels. The Centre will be housed at the Library of the Technical Institute of Delft, the Netherlands. Its holdings will be listed in *Technical Translations.*

"Not to be confused with the European Translation Center is another new center, Transatom, established in Brussels, Belgium, in December 1960, by a joint agreement of the European Atomic Energy Community (Euratom), the United Kingdom Atomic Energy Authority, and the U.S. Atomic Energy Commission. Transatom will be primarily concerned with creating and maintaining a master index file of translations of nuclear literature, from which it will publish a monthly Transatom Bulletin. Information will also be exchanged with the European Translation Centre, at Delft, the Netherlands, to prevent duplication of activities."[1]

Duplication of Effort

Translations are received at the Center as gifts, and a check of the card catalog listing them indicates that there is a great amount of duplication. A study based on the current holdings shows that 675 Russian articles and 168 non-Russian have been translated at least twice (both copies are in the files). Fifty-two articles have been translated three times. This represents a considerable waste of both time and money. In the first place any of these translations were available within a relatively short period merely for the asking; in the second place there is no comparison in the price of the two services since the cost of reproducing the ordinary translation is less than $2 at SLA's Translations Center.

Several factors may have contributed to this duplication of effort. When the Center was first organized, librarians sent in their holdings, and it was inevitable that there would be duplication. One of the most serious problems existing today is that there are so many places to check for an existing translation. Many librarians feel that it is both easier and cheaper to order a translation from a commercial agency than to search for it through endless six-month indexes and other translation lists. This necessarily creates duplication and points up the need for well organized cumulative indexes.

Survey of Translation Activities

The Translations Center of the Special Libraries Association received a grant from the National Science Foundation to support a Survey of Translation Activity in Universities, Societies and Industry in the Fields of Science and Technology. The purpose of the study, as stated in the covering letter sent out with the questionnaires in the conduct of the Survey, was to appraise the potential in these areas in order to increase the holdings at the Center and thereby make it a more effective tool in research. Mailing lists were prepared for each of the above categories, and a short questionnaire was sent to the institutions chosen asking them if translations were being made in their organizations and if so, to whom to write for further information.

Of these preliminary questionnaires, 4,470 were mailed out, and 1,827, or 38.3%, were returned. Of this number, and prior to excluding invalid replies, 587 indicated that they were engaged in translation activity, and a long seven-page questionnaire, entitled Survey of Translation Activities, was sent to each of them. In addition, the long questionnaire was sent to 2,755 special librarians in the following Divisions of SLA: Biological Sciences, Documentation, Metals, Military and Science-Technology.

It appears at this time that approximately

1. KAISER, Frances E. The Long Search. *Georgia Tech Alumnus,* vol. 40, September 1961, p. 10-2.

700 universities, colleges, trade schools, nonprofit research organizations, technical societies, industrial concerns and profit research organizations are engaged in translation activities.

Yet the Translations Center has reached its present proportions through the efforts of only 200 library donors. What could be accomplished if the nearly 500 other special libraries contributed regularly to the Center staggers the imagination.

The Survey pointed up some interesting facts, particularly where questions were related. The questions dealing with languages now being translated and those suggested for more complete translation point up a definite trend.

German still remains the language most in demand, though Russian shows a greater growth as indicated by the requests. Spanish was included in fifth place and shows a fairly high rate of translation in the past and an apparent low demand for the future. Japanese and Chinese show the highest percentage of change, the former showing a 200 per cent growth demand and the latter, 300 per cent.

Two other questions which lend themselves to easy comparison are those dealing with the subject matter now being translated and that which has been suggested for future translation. Most scientific subjects just about held their own, but the great drop in the demand for chemistry is noteworthy. This may indicate that the translation activity in this field has been covered adequately for the present time.

Two other questions in the Survey brought valuable information for future use, i.e., what journals and what books should be translated cover-to-cover regardless of language. We have compiled a list of about 500 journals and 200 scientific books from these answers. An examination of the list of journals indicates that the German and Russian are fairly evenly distributed; there is a sprinkling of other languages and a fairly sizable list of Japanese journals as well as some Chinese.

The two journals suggested most frequently for translation were *Chemische Berichte* and *Stahl und Eisen.* Next on the list were the French journal *Comptes Rendus* and a Japanese journal, *Nippon Kagaku Zasshi.* Following are the German *Zeitschrift für Physik* and the Italian *La Chimica d l'industria* (Milan), with a Japanese journal, *Kobunshi kagaku,* holding the next place. In fifth place is the German journal *Zeitschrift für Physikalische Chemie,* which ties with the Russian *Vysokomolekulyarnye Soedineniya.* From this point on German and Russian are requested about evenly.

An examination of the list of books suggested for translation gives German a slight lead. The five volumes requested most frequently were: Beilstein's *Handbuch der Organischen Chemie,* Gmelin's *Handbuch der Anorganischen Chemie, Handbuch der Physik,* ed. by Flugge, Hondremont's *Handbuch der Sonderstahlkunde* and Houben-Weyl's *Methoden der Organischen Chemie.*

Only two Russian volumes were suggested for translation more than once: Landau's treatise on electricity and electromagnetic theory and Smirnov-Aliaev on metals.

Two questions did not correlate in their entirety but do offer some significant comparative data. These questions related to sources to check for available translations and the actual agencies that supply them. In the above questions SLA's Translations Center, government agencies and commercial suppliers were listed. The Center holds the lead for sources checked for translations already in existence. The annual report of the Chief of the Translations Center states that 79.6 per cent of all requests were filled in 1960.

The covering letter that went out with the questionnaire stated that the purpose of the Survey was to appraise the potential in the translation area, in order to increase the holdings at the Center and thereby make it a more effective tool in research. The groundwork for this ambitious program has been laid; the implementation of the Survey rests with the special librarians in the United States and Canada.

EDITOR'S NOTE: The final report on the Survey is being prepared by George Fry & Associates, management consultants in Chicago.

Russian Transliteration—Sound and Sense

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THE TRANSLITERATION into the Roman alphabet of languages with a non-Roman script is often dismissed, even by librarians, as a rather academic problem—one best left to philologists. To the lay reader, "Tschaikowsky," "Chekhov" and "Khrushchev" seem to be spelled in the obvious and only possible manner, and it is something of a puzzlement to encounter in a bibliographic citation or a library catalog the equally defensible versions, "Chaikovskii," "Tschechoff" and "Hruščev." These randomly chosen but fairly representative examples illustrate graphically the predicament of the researcher attempting to verify Slavic names and titles referenced in foreign (and many United States) publications and equally demonstrate the need for a universally accepted system of Russian transliteration.

Romanization of certain other non-Western European languages, which would ameliorate the general transliteration problem, has proceeded slowly and is largely a work of the 20th century. Albania consolidated its Greek, Roman and Arabic alphabets into a unified Roman in 1908, Turkey abandoned the Arabic script in 1928, and the Indonesian language was Romanized soon after World War II. Although both in the Soviet Union and in China some attention has been directed to the Romanization of their respective scripts, it appears that Russian and Chinese, along with Japanese, Greek, Arabic, Urdu and a host of less widely spoken languages will continue for some time to be represented in transliterated form to the English-speaking world.

It is understandable that Russian, of all these languages, should be the focus of special concern, since it is of primary significance in the publication of scientific and technical research materials. For this reason, both national and international scientific organizations and standardization groups have attempted for over 20 years to create some order out of the chaos of conflicting Cyrillic-alphabet* transliteration systems and to impose some measure of standardization. Relatively little has been written on the problem, but numerous committees have been convened and dissolved, most of them coming to eventual disagreement over the claims of transcription as opposed to transliteration.

Transcription vs. Transliteration

For an understanding of this controversy (which has helped to delay adoption of a uniform Russian transliteration system), it is convenient to regard TRANSCRIPTION as the process by which some idea is conveyed of pronunciation as well as of spelling and TRANSLITERATION as the process by which characters in one alphabet are arbitrarily and unambiguously represented by characters in those of another, disregarding phonetic accuracy. The proponents of each system have been vociferous in its defense, some arguing that a word must look the way it sounds, and others claiming that a word can and must look the way you want it to look—neither more nor less, as Humpty-Dumpty would have said. The latter group might well point out, for example, that a reference to "N. Sergejewitsch Chruschtschow" in the journal *Aussenpolitik* is utterly logical to German readers, since it is based on the German phonetic values of the more familiar "Khrushchev." However, they could add, an American (pre-

* So-called because it was introduced about 863 by the missionary, St. Cyril, in his translations of ecclesiastical works from Greek into an early Bulgarian dialect. It is also used, with modifications, by Ukrainian, Belorussian, Bulgarian and Serbian.

sumably apolitical) with no knowledge of Russian would find it rather difficult to reconstruct the original spelling with any exactness. The same stricture could apply to any system that uses an aggregate of letters in the transliterated language to aid in the phonetic reproduction of a single Cyrillic character.

Both camps in this controversy are represented in a spirited and articulate debate on the merits and defects of sound versus sense in transliteration, which was carried on in the pages of *Science* in 1959. Gregory Razran, an advocate of the phonetic transcription theory, initiated the discussion but was eventually overwhelmed by sheer force of numbers (and, I believe, of logic) on the opposing side. Mr. Razran's critics retorted that any attempt to approximate pronunciation must be a cumbersome compromise at best and that what was needed was a completely unequivocal, one-to-one correlation with the original characters, which could be accurately reconverted by an individual with no knowledge of the Russian language. Most librarians and a fair number of linguists would tend to support this view.

Although all Russian transliteration systems must be phonetic to a degree, simply because of the large number of identical Cyrillic and Roman letters, some are more likely than others to stress this principle at the expense of simplicity, unambiguous reconversion possibilities or sound values compatible with English. Of the many systems now in use in the Anglo-American community, two widely-adopted schemes, those of the Library of Congress (LC) and the British Standards Institution (BSI), adhere as closely as possible to the graphic, or strict transliteration, principle.

The system recommended by the International Standards Organization (ISO) actually does likewise, but it employs a pan-Slavic transcription based on Czech, with frequent use of diacritical markings, and is thus less accessible to the average American researcher. The Board of Geographic Names (BGN) system, on the other hand, is perhaps the only well-known scheme that is predominantly phonetic and discouragingly ambiguous, using, for example, the letter "y" (either alone or in combination) to represent some *six* different Cyrillic characters. Three other frequently-mentioned schemes, those of the New York Public Library, the *Slavic Review,* and *Mathematical Reviews,* combine various features of the first four and elude precise classification. (A comparative table of these systems is given at the end of the article.)

International Progress Toward Standardization

Given this diversity of transliteration usage, with the resultant confusion in bibliographic citation and library cataloging, it is little wonder that persistent efforts on the part of international organizations have been directed toward the adoption of a universal standard, one that would be comparable in purpose to the Universal Decimal Classification in the cataloging field. These efforts date back to the period immediately following World War II and have enlisted the participation of leading documentalists.

From 1947 to 1955 the International Standards Organization and its national member committees engaged in a study of the Cyrillic problem, culminating in the issuance in October 1955 of the standard known as ISO/R 9: "International System for the Transliteration of Cyrillic Characters." In a very real sense, this recommendation was a landmark in the history of transliteration, for it represented the first system based on international agreement, and it secured the approval of 20 linguistically-dissimilar countries, including Chile, Denmark, Hungary, Ireland, Israel, Italy, Pakistan, Switzerland and Yugoslavia. The standard's introductory note, discussing general principles of transliteration, is particularly worthy of attention for the clarity and precision of its statement of ISO objectives.

Anglo-American Standardization Efforts

Although the ISO system was adopted in 1956 by Unesco for its bibliographical publications and library catalog, it did not secure general acceptance among English-speaking countries, largely because of the long-standing United States commitment to the Library of Congress system and because of previous

attempts by the Royal Society to formulate a British standard. From 1950 to 1953 the Royal Society and the British Academy carried out studies of the Russian transliteration problem, publishing their findings in February 1953 in a paper entitled "The Transliteration of Russian, Serbian, and Bulgarian for Bibliographical Purposes." After ISO/R 9 had later been considered and rejected by the British Standards Institution, certain modifications were made in the Royal Society's proposals, and the long-awaited British standard was finally published in 1958 as BS 2979:1958. It was also welcomed in the United States, where there had long been support for a unified Anglo-American system using a minimum of diacritical markings.

One excellent reason for the immediate response to the BSI system in the United States was the existence of two major competing schemes—those of the Library of Congress and the Board of Geographic Names—and the failure of either of them to secure exclusive acceptance. The BSI system seemed to many competent authorities to combine the best features of both and also offered a potential unified standard for the entire English-speaking scientific community. In January 1959, a trend toward its widespread adoption in the United States was started when Consultants Bureau, the largest commercial translator of Russian scientific publications, announced its conversion from the Library of Congress to the BSI system. Pergamon Press, another large translating firm with British affiliations, followed suit. During this time, the Library of Congress itself had undertaken an extensive study of the feasibility of modifying its scheme to conform to BSI usage. Unfortunately for Anglo-American standardization, it was decided that such changes would be prohibitive in cost, and the project was dropped.

Further action to establish the BSI system as an American standard came as the result of several meetings held between December 1960 and July 1961, under the auspices of the National Science Foundation in Washington, D. C., in an effort to clarify the problem of existing multiple systems. The last of these conferences, held on July 14, 1961,

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was called by the American Association for the Advancement of Science (AAAS) and was attended by 27 experts from government agencies and scientific societies. Somewhat earlier, the National Federation of Science Abstracting and Indexing Services (NFSAIS) had established its own Committee on Transliteration, which in turn had recommended the adoption of the BSI system for use by the Federation's member services. The NFSAIS was represented at the July AAAS conference, as were CIA, the Board of Geographic Names and the Library of Congress.

After consideration and analysis of the BGN, LC, BSI and ISO schemes, the BSI (with minor modifications not involving changes in letter choices) was recommended for adoption as an American standard on the following grounds: *1)* that it had established a wide following in the Anglo-American world, particularly in the indexing, abstracting and translation fields; *2)* that it was the most easily reversible of the systems considered; and *3)* that it already enjoyed official recognition as a British standard. This recommendation was then forwarded to the Z-39 Subcommittee on Transliteration of the American Standards Association for final approval by that body.

Future Prospects

During the past year, the BSI system has continued its gains, particularly in official United States Government circles. The Department of Agriculture has adopted it for

Comparative Table of Major Transliteration Systems*

Cyrillic	LC	BSI	BGN	ISO	NYPL	SR	MR
А а	a	—	—	—	—	—	—
Б б	b	—	—	—	—	—	—
В в	v	—	—	—	—	—	—
Г г	g	—	—	—	g(v)[1]	—	—
Д д	d	—	—	—	—	—	—
Е е	e	e	e(ye)[2]	e	e(ye,io)[3]	e	e
Ё ё	ë	ë	ë(yë)[2]	ë	io(e)[4]	ë	ë
Ж ж	ẑh[5]	zh	zh	ž	zh	ž	ž
З з	z	—	—	—	—	—	—
И и	i	—	—	—	—	—	—
Й й	ĭ	ĭ	y	j	ĭ	j	ĭ
К к	k	—	—	—	—	—	—
Л л	l	—	—	—	—	—	—
М м	m	—	—	—	—	—	—
Н н	n	—	—	—	—	—	—
О о	o	—	—	—	—	—	—
П п	p	—	—	—	—	—	—
Р р	r	—	—	—	—	—	—
С с	s	—	—	—	—	—	—
Т т	t	—	—	—	—	—	—
У у	u	—	—	—	—	—	—
Ф ф	f	—	—	—	—	—	—
Х х	k͡h	kh	kh	h	kh	kh	h
Ц ц	t͡s	ts	ts	c	tz	c	c
Ч ч	c͡h	ch	ch	č	ch	č	č
Ш ш	s͡h	sh	sh	š	sh	š	š
Щ щ	s͡hch	shch	shch	šč	shch	šč	šč
Ъ ъ	″	″	″	″	″	′	″
Ы ы	y	—	—	—	—	—	—
Ь ь	′	—	—	—	—	—	—
Э э	e	é	e	ė	ė	è	è
Ю ю	i͡u	yu	yu	ju	yu	ju	yu
Я я	i͡a	ya	ya	ja	ya	ja	ya

* *Note:* Dashes have been supplied where the transliteration is uniform throughout the table. Abbreviations are as follows:
LC = Library of Congress
BIS = British Standards Institution (BS 2979:1958)
BGN = Board of Geographic Names (also used by the British Permanent Committee on Geographic Names)
ISO = International Standards Organization (ISO/R 9)
NYPL = New York Public Library, Slavonic Division
SR = *Slavic Review* (formerly *American Slavic and East European Review*)
MR = *Mathematical Reviews*

1. v used in genitive endings (-evo and -ovo).
2. ye and yë used initially, after vowels and after ″ and ′.
3. ye at beginning of word or syllable; sometimes io.
4. e after zh, ch, sh, shch.
5. Ligatures are used over all multiple letter combinations in standard LC cataloging practice but are largely disregarded by other users of this system.

its *Bibliography of Agriculture,* the National Science Foundation has specified it for all translations prepared under its PL 480 program (except for geographical names, where BGN is still followed), the Atomic Energy Commission is now employing it, and the Office of Technical Services of the Department of Commerce has recently converted to its use in *Technical Translations.* It appears that the BSI system will secure growing acceptance by the scientific community, if not by the military or by the popular press, which may be expected to adhere to BGN usage. The Library of Congress system, which agrees with BSI except in two significant instances, will doubtless continue to be used by most academic libraries, largely because of the enormous difficulties of recataloging.

However, for institutions and organizations not irrevocably committed to a preexisting system, the BSI scheme offers the considerable virtues of simplicity, accurate reconversion, usability by linguistically untrained personnel, lack of ambiguity and absence of special symbols or markings. As a signal contribution toward the elimination of confusion and redundancy in bibliographic communications, it should be warmly supported by an increasing number of forward-looking librarians, documentalists and bibliographers.

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(Reviews the genesis and content of ISO/R 9. Quotes in full the introductory note on general principles of transliteration.)

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(Explains the British Standards Institution position in regard to its rejection of ISO/R 9 and its approval of BS 2979:1958.)

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(Author criticizes the multiplicity of existing systems and proposes one of his own devising, based on phonetic values.)

Russian-English Transliteration. *Science,* vol. 130, no. 3374, August 28, 1959, p. 482-8.

(Critical comments on Razran's article by Hamp, Fabergé, London and Ray. Rebuttal by Razran.)

ŠEVČIK, Alois. La Translittération. *Revue de la Documentation,* vol. 14, no. 1, January 1947, p. 21-2.

(Excellent statement of distinction between transcription and transliteration. Argues in favor of letter-for-letter principle.)

La Translittération des Caractères Cyrilliques à Propos de Deux Articles Récents. *Bulletin des Bibliothèques de France,* vol. 6, no. 6, June 1961, p. 279-92.

(Introductory discussion, followed by translation into French of a Royal Society paper explaining the development of the BSI system, originally presented at the 26th FID Conference, Rio de Janeiro, July 1960.)

CLR Grants Funds for Microfilm Study

The Council on Library Resources, Inc. has made a grant of $27,070 to be administered by the Library Technology Project, for construction of a model of a relatively inexpensive microfilm finder-reader system for library use. The work will be supervised by Peter Scott, Head of the Microreproduction Laboratory of the Libraries, Massachusetts Institute of Technology, and carried out by the Micoreproduction Laboratory and Edgerton, Germeshausen & Grier, Inc., Boston. The project provides for construction of a model finder-reader system compatible with the general design of existing, commercially available microfilm readers. The purpose is to eliminate an inherent weakness in roll microfilm systems—the reader's inability to search through a long roll for material without considerable waste of time—and to combine short lengths of film into rolls 100 or more feet long. A stroboscopic finding device will provide for continuous observation of an index.

Library Technology Project Report

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Book Labeling System

DEVELOPMENT of a book labeling system for the Library Technology Project is now in its third phase. Following completion of a successful prototype and construction of ten models by Battelle Memorial Institute of Columbus, Ohio, field-testing of the system is now under way. The following libraries and centers are cooperating in testing the equipment: Columbus (Ohio) Public Library; Columbus (Ohio) Public Schools (processing center); Cornell University Library (Ithaca, New York); Eastern Ohio Regional Processing Center (Barnesville); Grandview Heights-Upper Arlington (Ohio) Public Library; Kent State University Library (Kent, Ohio); Ohio State University Library (Columbus); and Rochester (New York) Public Library. A few additional libraries will also test the system at a later date.

The objective of the project is to develop a complete book labeling system that will make it possible to mark books more rapidly, efficiently, uniformly and economically than by any current method. The system consists of a mechanical method of imprinting, a strong adhesive to affix the label to the cover material of the book so permanently that it cannot be removed without failure of the cover material itself, a legible, high-contrast imprint, a thin but tough label material and an overcoating to protect the image from wear and soil.

The new system employs a typewriter with a large type face, to which is affixed a dual-unit mechanism to accommodate two widths of the base label material and the overcoating. The label material is a du Pont product known as Tedlar, which is opaque, unusually tough and only one mil thick. The overcoating is of standard cellulose acetate tape. Imprinting is done with a standard typewriter ribbon. The machine includes an automatic spacing device, a mechanism for scoring the tape between labels and a cut-off device. Labels from ¾ to 1⅞ inches wide can be used. On the basis of present estimates each label will cost about 1½ cents.

The price of the complete system, dual unit and typewriter, is estimated at slightly less than $400. It will be late 1962 or early 1963, however, before this equipment can be purchased by libraries.

Research and Development

The Library Technology Project is considering a project that would have as its objective the modification of existing equipment or the development of new equipment to produce labels for books in multiple copies. Such equipment would be useful primarily in large centralized processing centers where many copies of the same book must be labeled. The new system now being tested produces only one label at a time.

SLA Seminars

During the month of November, the Assistant Director of the Library Technology Project conducted three seminars for members of the Illinois Chapter of SLA. The subject discussed was "Recent Developments in Equipment and Supplies for Libraries." Twenty-three librarians registered for the seminars, the first of a series of professional discussion groups sponsored by the Illinois Chapter.

New Publications

Reports of two studies made for the Library Technology Project are now available from the Publishing Department of the American Library Association. LTP Publication Number 3, *Permanence and Durability of Library Catalog Cards,* by W. J. Barrow, sells for $1; LTP Publication Number 4, *Photocopying from Bound Volumes, A Study of Machines, Methods, and Materials,* by William R. Hawken, sells for $5.

National Library Week Is Yours—USE IT

DOROTHY McNUTT, SLA Representative
to National Library Week

USE IT to sell your library to management. USE IT to stimulate employee interest. USE IT to keep special librarianship at top level.

The public relations executive of one of the largest automotive enterprises recently said, when addressing a special librarians' conclave, "As long as you have a book on your shelf that one of your employees needs and he does not know that you have it—YOU are failing." Likewise, as long as you need money to buy that book and your administrators do not know it—YOU are failing. Do not be second-rate. Make use of and benefit from National Library Week. It is the most effective, tailored to fit, public relations program ever devised to permit librarians to prove their worth and display their services. It is invaluable for encouraging industrial and business employees to read more and to make fuller use of their libraries to enrich their lives on the job and in their communities.

National Library Week is a year-round reading and library development program sponsored by the National Book Committee, Inc., in cooperation with the American Library Association. **Read—And Watch Your World Grow** is the theme of NLW's fifth annual observance, to be held April 8-14, 1962. Geared for observance in more than 5,000 communities in the United States, NLW will bring the value of books and libraries to millions of people, and all business and industrial librarians are urged to take part and initiate activities during this Week. The theme will be carried out in a variety of colorful promotion aids available from NLW headquarters: Promotion Aids, National Library Week, P.O. Box 700, Great Neck, Long Island, New York.

The president of a large advertising agency has said that if a client gave him a five million dollar budget his agency couldn't duplicate the NLW program. Last year more than 45 national magazines published special

NLW articles covering a total circulation of 120,950,413 copies. Daily newspapers carried thousands of inches on the subject, and there were hundreds of radio and television programs and announcements.

The 1961 program helped to identify libraries as vital agencies of education and linked reading with lifetime learning. Tangible gains were reported in the efforts to strengthen the bonds between the special library and management, to whom in many cases serious lacks in company libraries were disclosed for the first time. The variety of ways in which SLA Chapters have utilized the medium of NLW to publicize special librarianship have been reported in the 1961 January, February, March and December *Special Libraries*. It is interesting to note that those who have used NLW in the past are its biggest boosters.

Librarians may select any type program that will suit their particular needs. Some successful promotional devices have been to *1)* invite administrators to participate in NLW at the local level by serving on a committee; *2)* ask supervisors to review library collections and make recommendations; *3)* devise gimmicks to attract employees to the library; while they are there explain its use; *4)* participate in employee and community programs during NLW; and *5)* set up appropriate displays and write articles for company organs and local papers.

It is essential to build a long range program for the future, but—FIRST OF ALL WRITE FOR YOUR PROMOTION AID KIT—AND USE IT to "READ—AND WATCH YOUR WORLD GROW."

SLA Nonserial Publications

Cumulative Statement on Publications in Print as of September 30, 1961

Date	Title of Publication	Cost*	Number Printed	Sust., Inst. & Review Copies Given	Copies Sold	Total Receipts to Date
1949	*Aviation Subject Headings*	$ 579.84	1000	256	439	$ 749.49
1949	*Brief for Corporation Libraries*	879.94	1500	420	1087	1,818.04
1949	*Creation and Development of an Insurance Library*	461.01	1000	255	578	1,083.20
1949	*Subject Headings for Aeronautical Engineering Libraries*	1,409.00	1000	226	570	2,185.87
1950	*Contributions Toward a Special Library Glossary*	409.77	1000	409	484	570.69
1951	*Technical Libraries, Their Organization and Management*	10,427.92	5617	530	4844	27,889.72
1951	*Nicknames of American Cities*	934.58	1500	23	1377	2,415.34
1953	*Source List of Selected Labor Statistics*	1,048.58	1000	36	747	1,191.06
1953	*Correlation Index Document Series and PB Reports*	4,228.39	1000	15	799	6,632.50
1953	*Directory of Special Libraries*	7,692.46	2090	23	1813	12,944.89
1954	*Map Collections in the U. S. and Canada*	1,078.97	1000	27	778	2,037.24
1954	*Subject Headings for Financial Libraries*	1,380.11	1000	27	492	2,010.55
1955	*Bibliography of Engineering Abstracting Services*	1,169.07	1702	26	1167	1,428.90
1956	*Handbook of Scientific and Technical Awards in the U. S. and Canada, 1900-1952*	8,645.96	2000	46	1012	8,195.30
1957	*Bibliography of New Guides and Aids to Public Documents Use, 1953-1956*	1,420.48	1226	40	1099	1,352.25
1957	*National Insurance Organizations in the U. S. and Canada*	1,218.91†	1009	43	508	1,424.50
1959	*Translators and Translations: Services and Sources*	4,587.06‡	3010	161	2213	5,523.35
1959	*Picture Sources: An Introductory List*	5,676.23§	3044	141	2226	7,776.60
1960	*Sources of Commodity Prices*	4,570.14¶	1500	199	950	4,740.00
1960	*SLA Personnel Survey*	1,453.40	1830	1366	319	314.50
1960	*A Checklist for the Organization, Operation and Evaluation of a Company Library*	3,299.89	3952	921	2060	4,087.60
1961	*Guide to Metallurgical Information (SLA Bibliography no. 3)*	2,303.47‖	2019	137	587	2,344.00
1961	*Guide to the SLA Loan Collection of Classification Schemes and Subject Heading Lists 5th ed.*	1,753.46	1026	105	157	626.50

* Cost of handling now included.

† $11.84 of this cost represents royalties paid to the Insurance Division for period January-September, 1961.

‡ $93.20 of this cost represents royalties paid to the Georgia Chapter for period January-September, 1961.

§ $142.31 of this cost represents royalties paid to the Picture Division for period January-September, 1961.

¶ $72.80 of this cost represents royalties paid to the Business and Finance Division for period January-September, 1961.

Bernard M. Fry
Printing

Margaret F. Brickett
Meals and Banquet

Mrs. Elsa S. Freeman
Convention Program

Agnes Gautreaux
Transportation

Dr. Karl A. Baer
Publicity

Dr. Arch C. Gerlach
Convention Chairman

Dr. Burton W.
Adkinson
Information

Mrs. Ruth Hooker
Hospitality

Mrs. Margaret Bryant
Registration

Paul Burnette
Local
Arrangements

Invitation to the 1962 SLA Convention

The 1962 SLA Convention will be held May 28-31, 1962, at the Sheraton-Park and Shoreham Hotels in Washington, D. C. Exhibits, registration and Convention-wide functions will be at the Sheraton-Park; Division activities and special meal functions will be at the Shoreham.

The Convention theme is "Progress Through Knowledge," and the Chairmen of Convention Committees join me in inviting SLA members to begin now to make progress toward attendance with the information provided here about Convention plans.

For those who come early, activities begin on Sunday, May 27. Special Divisions in the Library of Congress will maintain open house between 2 and 5 p.m. A reception, co-sponsored by the D. C. Chapter and the Association, will be held in the sidewalk cafe-type lounge in the center of the exhibit hall, 6 to 8 p.m. Many Divisions will hold receptions at their hotel suites later that evening.

The opening General Session begins at 10 a.m., Monday, May 28. In addition to welcoming speeches by appropriate dignitaries, there will be the keynote address. The theme of the second General Session, scheduled for Tuesday morning, will be research sponsored by the Council on Library Resources of particular interest to special librarians. Verner W. Clapp will preside, and Ralph Shaw, Donald Swanson and Edward Heiliger will participate. The Banquet will be Tuesday night and the SLA business meeting, Wednesday afternoon. Aside from the Advisory Council meeting Monday night and a special session on revision of the Copyright Law, other Convention time will be devoted to Division programs. Divisions have already scheduled work shops and professional sessions on topics such as "Legislation Involving Advertising," "Setting Up Central Bank Libraries in Underdeveloped Areas," "Retrieval of Information Through Machine Techniques," "Geographical Research and Space Mapping" and "U. S. Government Sources of Materials and Information." Among prominent speakers already committed for Division programs will be Rachael Carson, L. Sprague de Camp and several government officials. There will also be tours of embassies, libraries, museums and tourist attractions in the Washington metropolitan area in addition to post-Convention trips to Williamsburg, the Caribbean and possibly other places.

The directory of "Library and Reference Facilities" in the District of Columbia describes 244 libraries, practically all of which are either special libraries or contain units that function as special libraries. In addition to the National Gallery of Art and the world-famous Smithsonian Institution, there are scores of museums, monuments, interesting restaurants, theaters and other attractions to make a spring visit to the Nation's Capital especially attractive. Preliminary programs and reservation cards will be mailed to members about February 1. Please come!

Arch C. Gerlach

Arch C. Gerlach, Chairman, 1962 Convention

Goals for 1970

IN SAN FRANCISCO the SLA Executive Board voted the continuation of the Goals Committee "to make an over-all study of our operation in the light of developing trends and the changing needs of our membership."

As the Committee analyzes the structure and functions of the Special Libraries Association, it is encountering questions on which it needs advice from members. It will attempt to obtain membership opinion through a discussion at the Advisory Council meeting in February. Individual members should make sure that their opinions are made known through their representatives or by a letter to the Goals Committee (Winifred Sewell, Chairman, 335 Howard Ave., Rockville, Maryland).

Some of the questions that will be discussed are listed below.

Chapters and Divisions

1. Do Chapters and Divisions feel that their needs and desires are properly represented through the Advisory Council? Does the Association take full advantage of their potential contributions? Do the Division and Chapter Liaison Officers and the Chairman of the Advisory Council all serve useful purposes?
2. Would Divisions and Chapters function better if more of their routine work were handled by Headquarters?
3. Could there be more uniformity in operations all Chapters and Divisions perform, such as bulletin publication and maintenance of bylaws?
4. Is communication between the Association and its Divisions and Chapters adequate? Is there sufficient reporting of actions of the Executive Board? Are the President's Chapter visits worth the large annual cost? Should the Executive Secretary or a nearby Board member sometimes make the visit? Are the midwinter Advisory Council meetings worth their cost to the Association and to individual Advisory Council members?
5. Should there be more integration of activities of Chapter and Division committees and those of parallel Association committees? Could this be accomplished by having delegates from local committees serve on the corresponding Association one?
6. How can the member with strong divisional interests participate best in and gain most from the smaller Chapter?
7. Does the wide variation in Division size cause inequities?

Committees

1. Are there too many committees? Or does the present number assure greater division of labor and wider membership participation?
2. Is the new policy of having a Headquarters liaison representative on each committee useful? Should that representative be given an equal voice in deliberations?
3. Should there be a Committee Liaison Officer to coordinate committee work as Division and Chapter Liaison Officers now do for those groups?
4. Are there specific committees whose functions are unclear, should be changed or are unnecessary?
5. Should some committees be chosen on a geographic basis, either for wider representation or for a closer working relationship? Could Chapters take some responsibility for individual Association committees?

Executive Board

1. Is the present policy of having most Association decisions made by the Executive Board sound? Should the Board continue to take responsibility for policy but delegate that for operations to the Executive Secretary?

Headquarters

1. Is Headquarters doing too much or too little for the various parts of the Association? Is it supplanting voluntary help unnecessarily? Is it necessary to have as much and as prompt information as we now receive on such matters as membership changes?
2. Is it a proper function of Headquarters to serve as the major public relations arm of the Association? Are we able to support full-

scale promotional activity? How can publicity efforts of individuals and groups within the Association best be coordinated?
3. Should more publications activity be centered in Headquarters? Should there be some centralization of distribution and control of Chapter and Division publications?

SLA Today and Tomorrow

1. How would you rank the following Association functions in order of importance:

- Meetings and conventions
- Public relations
- Management relations (including the Consultation Service)
- Recruitment to the profession
- Education
- Placement
- Recruitment of new members
- Standards
- Serial publications
- Research projects
- Special publications and services
- Information and other supportive services to members

Can you name others of equal or greater importance?
2. How can more continuity be attained in Association activities? Would it be proper for all officers and committee members to serve a minimum of three years? Or would it be preferable to give more responsibility for assuring continuity to Headquarters?
3. If it were necessary to eliminate or curtail some of these functions, which should be cut? Should some be expanded? Would we be willing to raise dues and to do more volunteer work to maintain or improve such activities? Should we charge fees to all but Sustaining Members for some services?
4. What part should the Special Libraries Association and its members play in the exploding field of information handling? From what disciplines should our members be drawn in order to play the part we choose?

GOALS COMMITTEE,
Mary Ellen Padin
Sara M. Price
Morris D. Schoengold
Edith C. Stone
WINIFRED SEWELL, *Chairman*

Have You Heard . . .

National Science Foundation Grants

Ramo-Wooldridge Corp., Canoga Park, California, under a cost-sharing contract with the National Science Foundation, is continuing to investigate new techniques for language data processing. The work includes processing 300,000 words of Russian text as part of a program to partially automate dictionary compilation and is expected to further a current program in mechanical translation.

The Foundation has made a grant to the National Biomedical Research Foundation, New York City, for further development of "Tabledex," a coordinate method of indexing a bibliography by tables of numbers corresponding to articles and associated with descriptive indexing words found in the articles. Reports from the International Geophysical Year collection of the Library of Congress will be used, and LC staff members will evaluate results.

The National Bureau of Standards will receive continuing support from the Foundation for its basic research program on the definition of visual patterns and language together with analysis by syntactic methods through the development of a "picture language machine."

Syracuse University Research Institute, under a grant from the Foundation, will study the use made of translated Soviet scientific journals. It will include direct inquiry by correspondence and by interview for opinions of users of the translations and a survey of references in articles and books of American authorship.

Lehigh University will prepare reviews of books in psychology and allied subjects published in Russian and other Slavic languages under an NSF grant. The reviews will be published in *Contemporary Psychology* and other periodicals.

Members in the News

DANNY BEDSOLE has resigned from the United Aircraft Library and is moving to Sacramento, California, where he will assume the position as head of the library of Aerojet-General Corporation.

MRS. CLARA E. LE GEAR has retired from the Library of Congress Map Division as of December 15, after 47 years of service. She will continue as the Library's Honorary Consultant in Historical Cartography for three years. Mrs. Le Gear is Former Chairman of Geography and Map Division.

HOWARD L. STEBBINS, formerly librarian, Social Law Library, Boston, retired October 1, after 42 years of service. Mr. Stebbins was SLA President in 1935-37.

MRS. MARIAN VEATH, formerly librarian, Sylvania Electronic Systems, Buffalo, New York, has accepted a position as reference librarian with the National Aeronautics and Space Administration in Cleveland. Mrs. Veath is currently serving on the SLA Recruitment Committee.

BESS P. WALFORD, librarian, Philip Morris Research Center, Inc., Richmond, has been elected President of the Virginia Library Association for 1962. Miss Walford is the first special librarian to hold this high position in the association. Miss Walford was instrumental in establishing the Special Library Section of the Virginia Library Association.

American Translators Association

The American Translators Association (ATA), organized in 1960, serves as a national professional society for translators and interpreters. Active membership is open to all persons working in these fields, while anyone with an interest in translation is eligible for associate membership.

ATA, which is the United States affiliate of the Fédération Internationale des Traducteurs (FIT), presently has over 200 members in 22 states and six foreign countries.

ATA maintains a Job Roster for the use of its members, who also receive various publications, including the *Translation Inquirer, Translator's Tool Chest* and the newsletter *ATA Notes.*

As a service to the profession and to the nation as a whole, ATA is currently compiling a Registry of American Translators. This Registry is planned to provide a detailed analysis of the linguistic skills available in the United States and will be very useful in locating persons with special linguistic and subject knowledge. The Registry, while maintained by ATA, has no direct connection with the Association, and membership in ATA is not required for listing in the Registry.

The officers of ATA for 1961-62 are: President, Dr. Alexander Gode, Interlingual Division of Science Service; Vice-President, Dr. Kurt Gingold, American Cyanamid Company; Secretary, Betty Carter; and Treasurer, Christel J. Kappes, American Cyanamid Company.

For further information about ATA or the Registry, including samples of ATA publications, write to American Translators Association, P. O. Box 489, Madison Square Station, New York 10.

Social Work Library Anniversary

The Library of the School of Social Work at the University of Pennsylvania celebrates its 50th anniversary this year, from November 1961 to June 1962, with a series of lectures, exhibits and open houses. The library is one of the oldest and finest in the United States. It has available some 15,000 books and bound periodicals, 20,000 pamphlets and 275 periodicals.

Evelyn Butler, the librarian, has been with the School since 1946. Miss Butler has been particularly active in SLA, where she has been President of the Connecticut Chapter, Chairman of the Social Science Division and one of the founders of the Social Science Group of the Special Libraries Council in Philadelphia.

Larger Princeton Files

Gaylord Bros., Inc., Syracuse, New York has added a 10½ inch high, 10 inch deep and 3¾ inch wide metal file for storage and display of larger periodicals and pamphlets to its line of Princeton Files. The files are of heavy-gauge steel with label holder. The two smaller units are 8 and 5½ inches high.

All sizes are offered in gray or desert sand finish, with or without felt base. For further information write the above company, 155 Gifford Street or 29 North Aurora Street, Stockton, California.

Industrial and Business History Library

The Eleutherian Mills Historical Library is a new industrial and business history library consolidating the Longwood Library, created by the late Pierre S. du Pont, and the collection of the Eleutherian Mills-Hagley Foundation, established in 1952 on the du Pont Company's 150th anniversary. The Library, dedicated on October 7, 1961, is expected to become one of the most important research centers for historians working in United States business history. It is headed by Dr. Charles W. David, formerly Director of Libraries at the University of Pennsylvania.

International Information Processing Group Organized

The International Federation of Information Processing Societies (IFIPS) is a permanent world organization representing the technical societies of 17 nations. Each member of the Federation's Council represents the technical societies active in the information processing field in his country. In the United States the member Society is the National Joint Computer Committee for the Association for Computing Machinery, American Institute of Electrical Engineers and Institute of Radio Engineers, which is to become the American Federation of Information Processing Societies. IFIPS was officially formed in January 1960, and its first conference will be held in Munich, Germany, August 27-September 1, 1962. The activities of the Federation will include coordinating standards in the field of information processing. Other projects will be assumed by the Council, as requested by national technical societies, to help the growth of the information processing field. For further information about IFIPS 1962 Congress, write to Dr. E. L. Harder, Westinghouse Electric Corp., Industry Engineering, 11 L, East Pittsburgh, Pennsylvania (Congress Program Committee Representative for the United States).

Spanish Bibliographies

R. R. Bowker is starting a service that will list every Spanish language book published in Latin America,. giving source and price. Later, it is planned that an annual catalog similar to *Books in Print* be published in Spanish. Publishers interested in sending information write to Fichero Bibliografico Hispanoamericano, P. O. Box 3269, Grand Central Station, New York 17, New York.

Ten-Year Science Forecast

The National Science Foundation has published *Investing in Scientific Progress,* an analysis of science education trends over the past 40 years and a projection of these trends to 1970. The major goal stated by the report is: "Every young person who shows the desire and the capacity to become a scientist should be ensured the opportunity to do so." The findings of the report are: *1)* scientific talent is a scarce resource that the United States must develop fully to secure its future well being; *2)* steadily increasing numbers of talented young people want to become scientists; *3)* if this trend is maintained the United States will have twice as many scientists in 1970 as now; and *4)* to maintain this trend will require sharply increased dollar investments in science education and basic research in colleges and universities.

Letter to the Editor

Dr. Donald Dorward in his excellent article, "A Publisher Looks at Copyright", November 1961 issue, made several errors, which, in fact, may be embarrassing to the parties concerned. Following is a list of officers and trustees of the Committee to Investigate Copyright Problems Affecting the Communication of Scientific and Educational Information (CICP, not CIPC).

Officers

Dr. Howard A. Meyerhoff, President
Joseph A. McDonald, Vice-President
Gerald J. Sophar, Secretary-Treasurer

Trustees

Dr. Howard A. Meyerhoff, Scientific Manpower Commission
Joseph A. McDonald, Law Firm of Smith, Hennessey & McDonald
Gerald J. Sophar, Jonker Business Machines, Inc.
Dr. Laurence B. Heilprin, Council on Library Resources, Inc.

GERALD J. SOPHAR, Vice-President
Jonker Business Machines, Inc., Gaithersburg, Md.

Off the Press . . .

Book Reviews

TECHNICAL INFORMATION IN THE U.S.S.R. (Library Monographs, no. 3). *Aram S. Melik-Shakhnazarov;* translated by *Boris I. Gorokhoff*. Cambridge: Massachusetts Institute of Technology Libraries, 1961. viii, 122 p. pap. $1.60. (L. C. 61-16612)

Since the vast Russian network of libraries and information centers dealing with the collection and dissemination of scientific and technical information constitutes perhaps the most highly-organized and complex bibliographic system developed by a modern nation, any comprehensive account of its operations should be welcomed by Western librarians. Mr. Gorokhoff, a member of the Library of Congress's Slavic Division and author of the authoritative study, *Publishing in the U.S.S.R.* (Indiana University Press, 1959), has now translated a recent Russian monograph, *Nauchno-Tekhnicheskaia Informatsiia i Propaganda v Mashinostroenii* (Moscow, 1960), which MIT has issued as one in a series of analyses of the Soviet technical information program.

The opening 22 pages of this excellent survey are devoted to a description of the national technical information apparatus of the USSR, while pages 49-67 deal with Soviet bibliographic sources in science, technology and economics. These two sections alone make the handbook a valuable reference tool, for they present an array of factual material difficult to find elsewhere. The author's approach to his subject is generally succinct and objective and only occasionally marred by a political caveat, e.g., "However, one should maintain an exceptionally critical attitude in handling the company literature of capitalistic countries, keeping in mind the fact that such literature is promotional in nature and in the first instance pursues the goal of selling the products." (p. 65) It is just possible that some capitalistic [sic] librarians over-exposed to the trade literature of industrial firms might concur with Mr. Melik-Shakhnazarov.

Apart from a few such cautions to the reader, however, the manual succeeds admirably in compressing a large amount of factual data on the processing and use of materials in Soviet industrial libraries into a small space. Its primary focus, as evidenced by the Russian title, is the dissemination of information in heavy industrial plants, but the methods discussed and the bibliographic tools employed are representative of Soviet technical libraries in general. Considerable attention is devoted to information dissemination through non-printed channels, such as lectures, industrial excursions, trade schools, consultations, seminars and emulation of advanced workers. In contrast, the exploitation of machine methods for document indexing and retrieval is dismissed with a few general remarks on punched cards and microreproductions.

To round out the picture of the technical library system in the USSR, Russian-reading librarians might consult Nikolai Pevnev's *Planirovanie i Organizatsiia Nauchno-Tekhnicheskoi Informatsii v Promyshlennosti [Planning and Organization of Technical Information Work in Industry]* (Moscow, 1961), which stresses the handling of technical data in the economic sector and deals exhaustively with the elaborate system of technical information bureaus created in 1957 as agencies of the "sovnarkhozes," or regional economic administrative bodies. For information on library techniques used in these bureaus and in plant libraries, a valuable series of practical brochures on "Methods of Processing Scientific and Technical Information" is published by the Leningrad House of Technical Information. The Soviet technical library literature is voluminous; a check of *Knizhnaia Letopis'* (the national bibliography of the USSR) for 1960-61 showed over 40 significant monographic publications in this subject area, including the manual under review. Since the bulk of this literature still remains inaccessible to the English-speaking public, accurate and well-produced translations are most desirable. Both MIT and Mr. Gorokhoff are to be congratulated for making available this meticulous, scholarly translation, which should be on the reference shelf of all special libraries concerned with Russian technical research.

ROSEMARY NEISWENDER, Assistant Librarian
The RAND Corporation
Santa Monica, California

INFORMATION RETRIEVAL AND MACHINE TRANSLATION (Advances in Documentation and Library Service, volume 3, part I). *Allen Kent,* editor. New York: Interscience Publishers, 1960. 686 p. $23. (L. C. 60-53199)

Anyone interested in machine searching and translation would be attracted by the title of this volume under review, because it suggests that intellectual resources can be effectively exploited. But the book is a disappointment because we are getting hash for the most part and paying for champagne.

The 21 papers comprising this volume were among those presented before the International Conference for Standards on a Common Language for Machine Searching and Translation, sponsored by Western Reserve University and Rand Development Corporation, held in Cleveland, Ohio, September 6-12, 1959.

The first paper in this volume was done by Allen Kent and comprises 234 pages—a book in itself. It is an analytical literature review of machine searching and translation, presented in tabular form. I question the wisdom of this type of presentation; it has surely contributed considerably to the cost of the volume. Kent's second paper about the work of the Center for Documentation and Communication Research could have been omitted and 20 pages saved. This story has been told ad nauseam as the many references appended to the paper, as well as others which have appeared in trade journals, attest. In the same category is a paper on classifying, indexing and coding by the ubiquitous Ranganathan.

Other papers that are well written but have been presented elsewhere, are Newman and Swanson's paper on a notation system for use in data processing systems developed in the U. S. Patent Office, Myers and Loomis' article reviewing the Kodak Minicard system, Gull and Dodge's description of the General Electric Searching Selector, Hayes' account of the Magnacard concept and O'Connor's discussion of document grouping as a method of storage organization. The verbatim discussions, selected and brought together in Chapter 22, present no new information and do not add anything to the understanding of the individual papers. This reviewer would not recommend the expenditure of $23 for the volume, especially since the book is one of a two-volume work.

GERTRUDE SCHUTZE, Librarian
Union Carbide Research Institute
Tarrytown, New York

New Serials

CURRENT is a monthly digest of material from sources such as periodicals, newspapers, books, addresses and forums, and deals with present-day society's problems, questions, ideas and information. Material is quoted directly or summarized. Sources are listed alphabetically, including addresses, frequency of publication, single copy and subscription costs. A Readers Service makes available, free to subscribers, a selection of brochures and reprints, listed on the journal's back cover each month. The annual subscription price is $7. Order from *Current,* 905 Madison Avenue, New York.

LIFE SCIENCES, published bi-monthly, contains preliminary communications on various international aspects of biological interest—including topics on plant and animal physiology, pharmacology, biochemistry and endocrinology—within two to six weeks of their acceptance. The journal is designed to act as an international forum for rapid dissemination of new and significant information in life sciences. It may be ordered from Pergamon Press, 122 East 55th Street, New York 22. The annual subscription price is $30 to libraries, university departments, government laboratories, industrial and other multiple reader organizations and $15 to private subscribers who order direct from the publisher certifying that it is for their personal use.

Russian Newspapers on Microfilm

Micro Photo Inc. is offering microfilm editions of six Russian newspapers, beginning with 1961 issues, on a continuing basis: *Literatura i Zhizn* and *Sovetskaii Kultura,* at a 1961 subscription price of $5 each; and *Stroitel'naia Gazeta, Ekonomicheskaia Gazeta, Selskaia Zhizn* and *Trud,* at $10 a subscription. Additional titles will follow depending on interest shown, and microfilming of one good representative newspaper from each of the Soviet Socialist Republics is planned. Back files of newspapers and periodicals will be microfilmed. Orders for the six publications on which prices are established may be sent to Micro Photo Inc., 1700 Shaw Avenue, Cleveland 12, Ohio, and a note from librarians indicating possible interest in ordering additional titles will assure the enlarging of the program.

G. K. Hall to Issue African Catalog

The Northwestern University Library has authorized G. K. Hall & Co., Boston, to publish its *Catalog of the African Collection.* This work, printed in two volumes, will be available in the Spring of 1962. It will list over 20,000 volumes concerned with Africa, south of the Sahara, and surrounding islands. The price is $90, subject to increase. There is a 10 per cent additional charge on orders outside the United States.

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Scientific Information Booklet

National Science Foundation Programs for Dissemination of Scientific Information (NSF 61-63), published October 1961, is a 16-page pamphlet on the NSF Office of Science Information Service (OSIS). The responsibility of the OSIS and the general approach in discharging this responsibility are discussed as are particular scientific programs now in progress, such as documentation research, support of scientific publications, exchange of foreign science information, research data and information services and resources and training. The publication is intended as a source of basic information about NSF scientific information activities and as a guide to those considering applying for grants in the scientific field.

RECENT REFERENCES

Librarianship

GENERAL RULES FOR CREATING MACHINABLE RECORDS FOR LIBRARIES AND SPECIAL REFERENCE FILES. Yorktown Heights, New York: IBM, Advanced Systems Development Division, 1959. 8 p. pap. (Available from librarian at above address)

How to prepare bibliographies, keyword-in-context indexes, index cards and other library records and publications through use of IBM cards.

Bibliographic Tools

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A collection of articles, analyses and proposals, pros and cons. Bibliography.

DIRECTORY OF CANADIAN SCIENTIFIC AND TECHNICAL PERIODICALS: A Classified Guide to Currently Published Titles (N.R.C. No. 6104). *National Research Council Library,* comp. Ottawa: compiler. 1961. lv, 31 p. pap. Apply.

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INDEX-HANDBOOK OF CARDIOVASCULAR AGENTS, vol. 2, 1951-1955 (Parts 1 & 2 Publication 821), *Isaac D. Welt.* Washington, D. C.: National Academy of Sciences, National Research Council, 1960.

MASTERS THESES IN THE PURE AND APPLIED SCIENCES—1959: Accepted by Colleges and Universities of the United States, vol. 4. *Beth M. Schick,* ed. Lafayette, Indiana: Thermophysical Properties Research Center, School of Mechanical Engineering, Purdue University, 1960. iv, 443 p. pap. $6.

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SERIAL PUBLICATIONS CONTAINING MEDICAL CLASSICS: An Index to Citations in Garrison-Morton. *Lee Ash,* comp. (With "The Story of the Garrison-Morton Bibliography of Medical Classics," by Leslie T. Morton) New Haven: The Antiquarian, 31 Alden Road, 1961. xxiv, 147 p. $6.75. (L. C. 61-8290)

Indexes about 5,000 articles in 900 serial publications listed chronologically, with date, volume number, pagination, author and Garrison-Morton number.

SOURCES OF INFORMATION AND UNUSUAL SERVICES: A Guide to Information, Pamphlets and Services. Available from Organizations and Agencies in the United States, 6th ed. *Raphael Alexander,* ed. New York: Informational Directory Company, 200 West 57th St., 1961. 84 p. pap. $2.95. (L. C. 53-4204)

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& Co., 97 Oliver Street, 1961. 3 vols., about 1,000 pages each. $129 (subject to change).

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How issued (bound in journal or separately) and usual date or manner of publication. British, French and Belgian lists revised. Italian, Spanish and Dutch and Scandinavian lists added.

TRANSLATION TITLE LIST AND CROSS REFERENCE GUIDE. (TID-4025 (1st rev.) (Pt. 1)) *Frances E. Stratton.* Oak Ridge, Tennessee: Office of Technical Information Extension, Atomic Energy Commission, 1961. iii, 516 p. Available from Office of Technical Services, Department of Commerce, Washington, D. C.

Unclassified translations in Office of Technical Information Extension, as of June 30, 1960. Section A: Title list; Section B: Original source index and author index. Appendix: Russian scientific journals available in English.

Directories and Encyclopedia

DIRECTORY OF CONTINUING NUMERICAL DATA PROJECTS: A Survey and Analysis by the Office of Critical Tables (Publication 837). Washington, D. C.: National Academy of Sciences—National Research Council, 1961. xiii, 66 p. pap. $1. (L. C. 61-60011)

30 groups that compile scientific numerical data on a continuing basis are described by: organization of the project, substances and properties covered, sources and evaluation of data, use of nomenclature symbols, units and physical constants, currency, format, and publication and distribution. Projects have been grouped according to their coverage. Index.

EVERYMAN'S CONCISE ENCYCLOPAEDIA OF RUSSIA. (Everyman's Reference Library.) *S. V. Utechin.* New York: Dutton; London: J. M. Dent & Sons Ltd., 1961. xxvi, 623 p. illus. $7.95.

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