

Translations

Translation as a proposal appeared at the Council of 30 December 1947 when the Secretary reported that the Committee on the Role of the Society in Mathematical Publication was considering a project, to be funded by the Office of Naval Research (ONR), of translating articles in Russian. At the Council of 28 February 1948, A. W. Tucker reported formally for the committee. It was noted that a decision had been reported that the Russians would publish exclusively in Russian, making translation more necessary. The Council authorized the preparation of a list of technical terms supplemented by a pamphlet on the alphabet, phonetics, rules of syntax, etc. The Council agreed “[a]s a temporary measure [to] appoint a committee to be headed by Dr. [Ralph] Boas to serve as a committee of selection for articles (in Russian or other languages to be chosen at the discretion of the committee) of sufficient importance and demand to warrant translation into English and publication thereof.” The position of Boas as executive editor of *Mathematical Reviews* was cited in making the appointment. Distribution of translations was referred to the committee and plans for funding beyond an initial approach to ONR for \$25,000 were left unresolved. At the Council of 7 September 1948 it was reported that the contract with ONR to produce both the translations and the pamphlet had been signed. Immediately following WWII, the ONR was carrying part of the burden that would eventually fall to the National Science Foundation when that body was established.

In December 1948 the Committee, consisting of R. Boas, chairman, S. Eilenberg, D. H. Lehmer, W. Prager, and G. Y. Rainich, reported that the translation of four papers had been authorized, of which one had been completed except for final editing. In April 1949, the first set was ready for distribution. The arrangement was that 200 copies were to go to the Navy for their distribution and that additional copies would be sold by the Society at cost. However the Trustees found the distribution costs for the Society to be too high. Forty-two papers were in various stages of translation by August 1949. The project was temporarily halted in 1950 with fifteen papers translated. The word list of 2800 words and the pamphlet on grammar of about 30 pages was compiled by a committee consisting of S. Eilenberg, chairman,

L. Bers, P. R. Halmos, G. Y. Rainich, and A. E. Ross and was ready for distribution in 1950. This was a forerunner of the *Russian-English Dictionary* (the Lohwater dictionary) discussed later.

In 1952 the original committee was discharged and a new committee with staggered terms was established, consisting of R. E. Bellman, R. P. Boas, chairman, J. L. Doob, I. Kaplansky, and H. Samelson.

In 1953 it appeared that the ONR, though satisfied with the translation project, no longer had the funds to continue to support it. The National Science Foundation (NSF) was asked to provide support, which it subsequently agreed to do.

The Council of 30 April 1954 considered whether to continue to distribute translations as separate or to consolidate them in volumes. Unable to reach an effective decision the Council referred the matter to the Executive Committee with power. The Executive Committee approved the change on 24 June 1954. One hundred five papers had appeared under the ONR sponsorship and were reprinted in hard cover volumes with NSF support in 1962. This is the book series AMS Translations-Series 1. The AMS Translations-Series 2 has put out 136 volumes between 1955 and 1987. Support from the NSF ended in 1966 but the venture by the Society has been self-supporting.

In December 1955 the Translations Committee reported that the reservoir of the older material in need of translation was almost exhausted so that for the most part only current material was being translated.

The report of the Committee on Translations for 1956 notes that along with the papers translated from Russian there was one from Japanese.

In 1959 the Committee on Translation from Russian and other Foreign Languages became a joint committee with the Institute of Mathematical Statistics with the addition of E. Lukacs and I. Olkin to the committee. The committee operated as two subcommittees. The Association for Symbolic Logic became a participant in 1983 with the appointment of a subcommittee consisting of S. Feferman, J. P. Jones, V. Lifschitz, and G. Minc.

In September 1959 the Council voted to expand the translation program to include the entire mathematics section of *Doklady Akademii Nauk SSSR*, beginning in 1960, under the title *Soviet Mathematics-Doklady*. Over the years, six others followed, namely:

Trudy Moskovskogo Matematicheskogo Obshchestva under the title *Transactions of the Moscow Mathematical Society* since 1963. This is a joint arrangement with the London Mathematical Society.

Trudy ordena Lenina Matematicheskogo instituta imeni V. A. Steklova under the title *Proceedings of the Steklov Institute of Mathematics* since 1965.

Izvestiya Akademii Nauk SSSR Seriya Matematicheskaya under the title *Mathematics of the USSR-Izvestiya* since 1967.

Matematicheskii Sbornik under the title *Mathematics of the USSR-Sbornik* since 1967.

The mathematics part of *Vestnik Leningradskogo Universiteta* [Seriya] Matematika, Mekhanika, Astronomiya under the title *Vestnik Leningrad University: Mathematics* during 1974–1984.

Teoriya Veroyatnostei i Matematicheskaya Statistika under the title *Theory of Probability and Mathematical Statistics* since 1974.

Beginning with *Izvestiya*, these translations were done without contract support.

The translation of *Acta Mathematica Sinica* under the title *Chinese Mathematics-Acta* was established by the Council of January 1961 but for political reasons lasted only through 1967 when the Cultural Revolution took hold. At the time that the translation began, S. H. Gould was near the end of his tenure as executive editor of *Mathematical Reviews*. Although he had taught and written in mathematics, his Ph.D. was in classics and the study of a diversity of languages was a consuming interest and lay in both the written and the spoken language. Following his tenure at *Mathematical Reviews* he became the first editor of Translations and served from 1960 to Summer 1972. He also served as editor of the translation journal. The project received financial support from the National Science Foundation.

Although rather few books have been translated as part of the program of translation from Russian, this is a circumstance of the business rather than a deliberate decision. Commercial publishers have acquisition editors who seek and contract for translation of books in the manuscript stage whereas the Society has waited for printed books to review them. Officers of the Society would like to have more translation of books done through the Society because of a conviction that the Society can serve the profession by producing higher quality translations at lower cost. Whether the Society can and should enter the market at the manuscript stage was an open question for many years but in 1987 the Executive Committee and Board of Trustees decided to try it beginning in 1988 through the good offices of distinguished Russian consultants to the Committee on Translation. The first of these were V. I. Arnol'd, S. G. Gindikin, and N. K. Nikol'skii.

At the time of preparation of this volume the political situation in China had been relaxing for the past ten years and mathematics was once again flourishing. Arrangements were accordingly in place again to translate mathematical work from Chinese to English. The project is supervised by a committee consisting of Tsit-Yuen Lam, Chairman, Sun-Yung Alice Chang,

S. Y. Cheng, Tai-Ping Liu, and Chung-Chun Yang. The first two books are anticipated in 1988.

Arrangements for the translation of mathematics from Japanese into English were also being made. This project was supervised initially by an ad hoc committee consisting of Nagayoshi Iwahori, Tosio Kato, Shoshichi Kobayashi, Masayoshi Nagata, and Katsumi Nomizu. In the stable arrangement the committee consists of Nomizu and Kobayashi with consultants as needed. In 1988 a contract was signed with the Mathematical Society of Japan and Iwanami Shoten, Publishers, for the translation of the expository articles in the journal *Sūgaku* under the title *Sugaku Expositions*.

Royalties to foreign authors of translated books were authorized in 1961 even though there may have been no copyright or obligation to pay. Over the years, there was a difficult issue, namely how to pay a Russian author individually rather than his government. The general principle adopted by the Trustees in 1962 was that funds were held until an occasion when the author or a personally accredited representative was traveling in the United States. As a result, there is a fund of unpaid royalties awaiting claimants. This situation changed when the USSR adhered to the international copyright agreement since the right to receive payment lodges with the copyright holder.

Although the start-up costs of a translation journal are substantial, with an investment to be made before a subscription list is established, in the long run it is possible to operate such a journal at a surplus without charging excessively large prices.

RUSSIAN-ENGLISH DICTIONARY

The Society has published a few items whose sales far exceed the rest. Among them is the *Russian-English Dictionary of the Mathematical Sciences*, which by 1987 had sold over 9600 copies. There is a parallel English-Russian dictionary published by the Foreign Languages Publishing House in Moscow.

The foreword and the preface to the Soviet edition contain a brief history of the project. Informally, it arose in June and July 1956 when N. E. Steenrod and A. J. Lohwater were the American delegation to the Third All-Union Congress of Soviet Mathematicians in Moscow. Formally, there was an exchange of letters between D. Bronk, president of the National Academy of Sciences, and A. N. Nesmeyanov, president of the Soviet Academy of Sciences, followed by the appointment of representative committees. The Soviet committee consisted of P. S. Alexandrov, chairman, I. R. Shafarevich, M. M. Postnikov, A. F. Leont'ev, and A. A. Dezin, later augmented by L. D. Kudryavtsev, vice-chairman, L. N. Bolshev, S. M. Nikol'skii, E. D. Solomentsev, and V. S. Vladimirov. The American committee consisted of S. H. Gould, A. J. Lohwater, and G. Y. Rainich.

Work began with a meeting of representatives of the two committees on 10 September 1958 at the Steklov Institute in Moscow. Coverage was intended for use in reading papers and books at any level in mathematics and selected areas of theoretical physics, defined by the coverage of *Mathematical Reviews* and *Referativnyi Zhurnal Matematika*. Each dictionary contains a brief treatment of the appropriate grammar. Each side prepared a word list and the two lists were exchanged for critical comment.

The Russian-English dictionary was prepared by Lohwater with the collaboration of Gould, who was then executive editor of *Mathematical Reviews*. Financial support came from the National Science Foundation. Work at this end was completed by January 1960 and the Soviet suggestions for improvement were incorporated by November 1960. The book of xiii+267 pages was published in 1961. It contains more than 15,000 terms.

The first edition of such a book is naturally not quite perfect. As a result, frequent users have compiled private word lists to supplement it. The advances in the field of mathematics have brought new vocabulary into use. The 1961 dictionary was weak in terms from applied mathematics and statistics and has little of the vocabulary of computer science, whose development was only beginning in 1960. Thus in 1984 exploration of a revision was begun. An advisory committee consisting of H. Weinberger, chairman, R. C. Bartle, P. R. Halmos, and E. Hewitt was formed, with R. Boas as consultant. The National Security Agency (NSA) was approached for funds and expressed considerable interest but with anticipated budget cuts did not have the money then.

In a trip to Russia in 1986 W. J. LeVeque, the Society's executive director, talked with people at VINITI (All-Union Institute of Scientific and Technical Information) and at the Steklov Institute about a revision and found a positive response. The Trustees agreed to embark on the venture without assurance of full funding but with a limitation on expenditure and scope of the project should funding not be forthcoming. The NSA was approached in April 1987 for a two-year project of preparation of the dictionary, with R. P. Boas as editor, and did provide an initial grant of \$200,000. Thus the project is under way.