

SERGEI IVANOVICH TOMKEEV was born on October 21 (new style) 1892 in Vilna. As his father was in the army his childhood was spent in different places, but Odessa, where his grandmother had a house, was a town to which he constantly returned. When still a child he moved with his parents to Kars, and there, when riding in the mountains with his father, he became addicted to the study of rocks. From Kars the family removed to Tbilisi, where his father became Director of the Cadet Corps, and this was his home for about 15 years. Here, at school, he had his first introduction to geology books, and in a secondhand bookshop discovered Charles Lyell. (He has since collected four editions, including the first, of Lyell's 'Principles of Geology and the first edition of Lyell's Elements of Geology'). From Tbilisi he went to the Polytechnical Institute in Petrograd, where he was a pupil of Loewinson Lessing. It was while he was doing vacation work on geological prospecting for the Turk-Sib. railway that he met a discontented teacher, and, through the agency of Loewinson Lessing, was able to procure her appointment as the first woman station master (mistress) in Russia. When the 1914 war broke out he was doing research in the crater of a volcano (I think in South Georgia or Armenia) and knew nothing about the war until the need for food supplies drove him down to the nearest village. After that he worked in the hospital which was set up in the Polytechnical Institute and he was also with the medical corps on the Galician front, where he was wounded and shell-shocked and invalided out. He continued to work at the Polytechnical Institute, but was twice sent to Britain by the provisional government. The second time he stayed on to attend geological courses at King's College in the University of London. At the end of the war he was serving in the Red Cross in a hospital in Manchester. In December 1920 he became a lecturer in Geology in Armstrong College, Newcastle upon Tyne (which until 1963 was part of the University of Durham). He remained for the rest of his working life at Armstrong College (from 1937 called King's College and from 1963 the University of Newcastle upon Tyne). In 1936 he became an M.Sc. (Master of Science) and in 1946 D.Sc. (Doctor of Science). He was also a Fellow of the Geological Society of London and of the Royal Society of Edinburgh. He became Reader in Mineralogy in 1947 and Professor of Petrology in 1958. He was awarded the Lyell Medal by the Geological Society of London.

He published about 170 papers, covering descriptive petrology, analytical petrology, theoretical petrology and geochemistry, a great deal of it concerned with the British Tertiary province, although he also did a considerable amount of work on the Oslo province of Norway. His first really important work in theoretical (? fundamental) petrology was an article on 'The basalt lavas of the Giant's Causeway district of Northern Ireland' published in the Bulletin volcanologique (Naples, 1940). For several years (1950 -) he was very much involved with the table of chemical elements, studying the various forms this has taken and ultimately creating his own form, an elliptical spiral, with its three dimensional form a truncated cone. He linked his new table with the atom and used it to plot various surfaces, such as specific gravity. He produced one book (A new periodic table of the elements, based on the structure of the atom - 1954) and a number of articles.

At the same time his interest in Geochemistry increased. He was a foundation member (with Professor Vinogradov) of the International Geochemical Commission and he wrote articles on Geochemistry for Encyclopaedias and in 1964 an article 'Petrochemistry and Petrogenesis of the British Tertiary Igneous Province' published in Hyderabad, India. His work on the Oslo province was largely geochemical.

Another subject in which he had a lifelong interest was the history of geology. He loved and collected old books. He made a detailed study of James Hutton and of his contemporaries in continental Europe and, of course, he was tremendously interested in the development of the study of geology in his native country. He translated, edited and brought up to date Loewinson Lessing's History of Petrology (?1948). His latest paper on the history of geology was 'Unconformity - an historical study'. He wrote also on the history of geological maps (before 1825). This is still in manuscript. It is really too long for an article and probably not long enough for a book. It has about 160 bibliographical references. I hope to edit and shorten it so that it can be published in a learned journal. Economic geology had never been his particular interest, but a few years ago he was persuaded to write a series of ten articles for The Quarryman's Journal on The Economic Geology of Quarried Materials.

Side by side with all this activity he had, since 1938, been collecting terms for a dictionary of petrology in two parts (1) a classified section and (2) an alphabetical glossary. I am hoping, with the help of geological friends, to get this published in the next $1\frac{1}{2}$ to 2 years.

One great desire pervaded his life - to make the geological, geochemical, mineralogical and petrological work of the Soviet Union known to the English speaking world. On this he expended an enormous amount of time and energy, writing very many thousands of abstracts of Soviet books and articles for Mineralogical Abstracts. He also placed Russian books with English and American publishers, and either translated them himself or edited someone else's translation. Finally, in 1963, he visited the Soviet Union to negotiate, if possible, an exchange between the U.S.S.R. and Britain. His failure was a cause of great disappointment to him.

His friends in Great Britain knew him not only as a geologist. He was widely read in many subjects, having a thorough knowledge of both Russian and English literature and a good knowledge of the literature of France and Germany. He was also a philosopher. He was one of the few men of whom it could be said that he never had an enemy. He had innumerable friends, particularly among children who all loved him.

Oliver S. Tomkins