# JUBILEE THOUGHTS

Geology is undoubtedly one of the oldest sciences in the world, because already the Stone Age man needed some knowledge about rocks and minerals to make his primitive tools and weapons. As early as the 15th century, Leonardo da Vinci and Georgius Agricola advanced scientific ideas, which were rather close to present understandings. However, a real outburst of new knowledge took place in the second half of the 17th century, when also scientists from Estonia expressed their standpoints on the structure and development of the Earth's crust. G. Mancelius, later professor of the University of Tartu, published a paper on earthquakes in 1616. In 1678, J. Herbinius completed his thesis dealing with waterfalls. In 1691, L. Micrander, professor of medicine, published a paper on mineral water springs. Foundation of the University of Tartu in 1632 was a great impetus to the progress of science. The reopened in 1802 university had close contacts with the St. Petersburg Academy of Sciences founded in 1724. The latter exerted great influence upon research activities in Estonia.

In the second half of the 19th century and at the beginning of the 20th century many world-famous geologists worked in Estonia. Among those were Gregor Helmersen, a founder and the first head of the Russian Geological Committee (founded in 1882), Moritz von Engelhardt, Karl Eduard Eichwald, Friedrich Schmidt, Constantin Grewingk, Franz Loewinson-Lessing, and several others.

Top-rank national scientists were lacking in the young Republic of Estonia which had gained independence thanks to favourable political events. However, already in 1922 Hendrik Bekker defended his doctoral thesis at the University of London and became the first professor of geology of Estonian nationality. Several other Estonian researchers as well gained international renown, e.g. Armin Öpik (1898–1983), Artur Luha (1892–1953), Karl Orviku (1903–1981), Ivan Reinwald (1878–1941), and Paul William Thomson (1892–1957). The foundation was laid to the Estonian school of geologists. Publishing of scientific papers gained momentum through the series *Tartu Ülikooli Geoloogia Instituudi Toimetised* (Transactions of the Geological Institute of the University of Tartu; 66 issues appeared during 1924–1943).

The occupation of Estonia by the Soviet Union in 1940 and the outbreak of war soon after put an end to the extraordinarily versatile and successful inanimate nature studies in Estonia. The Estonian Geological Committee, founded in 1937, was closed, and the right to conduct geological studies was conferred upon the

military structures. A great number of books were either destroyed or shut up in special funds. In 1946, immediately after the war, several books of fundamental significance were published including *Eesti NSV maavarad* (Mineral resources of the Estonian SSR) by A. Luha and *Tartu linna hüdrogeoloogia* (Hydrogeology of the town of Tartu) by K. Orviku. However, soon almost all that applied to geology and mineral resources was made secret. For a long time not a single publication appeared in the field of geology. The results obtained by the researchers of the Institute of Geology (founded in 1946 at the Estonian Academy of Sciences) remained mainly in the form of hand-written reports, which were declared secret or accessible for official use only.

Khrushchov's "thaw" opened up new vistas for science. The foundation was laid to the series *Eesti NSV Teaduste Akadeemia Geoloogia Instituudi Uurimused* (Transactions of the Institute of Geology of the Academy of Sciences of the ESSR). During 1956–1963, thirteen issues were published, thereafter the series was closed.

Against the political background of the period, the journal *Eesti NSV Teaduste Akadeemia Toimetised*, first published in 1952, exerted only an indirect effect on geological sciences. In the first years a great part of the papers had the unmistakable air of communist party propaganda, the main subjects being the beginning of working class movement in Estonia, the role of Estonian Bolsheviks in the October Revolution, the genius of Stalin in the science of linguistics, etc. Other papers allowed for publication in the journal were in the field of sciences that were considered to pose no political threat (mathematics, archaeology, chemistry, etc.).

Leaving aside Prof. Nikolaj Dilaktorskij's paper on potential application of the thermal method in the study of clays (*Toimetised*, 1952, No. 3) and Sergej Baukov's paper on specific gravity of oil shale (*Toimetised*, 1955, No. 1), the first and the only paper of a native Estonian scientist based on the original material and published in the journal was K. Orviku's Russian-language report dealing with the geological evolution of the Estonian territory in the Quaternary (*Toimetised*, 1955, No. 2). The permission for its publication had to be obtained from Moscow. As a matter of fact, the paper was a summary of the speech K. Orviku made on the occasion of his election a full member of the Estonian Academy of Sciences. The paper was written according to the strict rules established for geological publications; this accounts for the rather superficial treatment of the subject, and lack of the scale and place names on the schemes.

In 1956, *Toimetised* came to be published in three series. Geology was included into the series of physical-mathematical and technical sciences, which was, undoubtedly, most inappropriate. In 1967, a joint series for geology and chemistry was started. This promoted publishing of papers and spreading of the journal. From 1978, the papers in the field of geology are published in the *Geology* series, which is in accordance with the potential of geological sciences in the Republic of Estonia. Although the journal is named the *Proceedings of the Estonian Academy of Sciences*, its publishers include also Tallinn Technical University, the University of Tartu, and the Geological Survey of Estonia. The journal is open not only to

Estonian researchers, but to the whole international community of geologists. It has an international Advisory Board, the 14 members of which are outstanding researchers in their field of science. The *Geology* series publishes peer-reviewed primary research papers preferably in English, but contributions in Estonian, Russian, or German are also eligible for inclusion in the journal. True enough, their proportion is very small.

Half a century is a long time in the life of both a man and a journal. Often it is thought that a scientist who has celebrated his fiftieth anniversary starts losing his creative enthusiasm. With the journal, the situation reverses itself. The *Geology* series has still much space for growing, and in the name of its continuing success the Editorial Board will do its very best.

Anto RAUKAS
Chairman of the Editorial Board