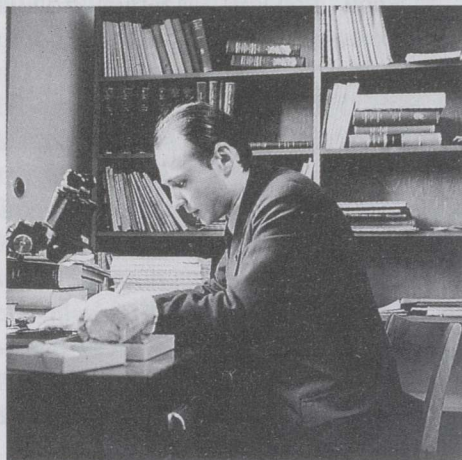


GALR AND YOUNG VALDAR JAANUSSON – A CHAPTER IN THE HISTORY OF ESTONIAN GEOLOGICAL STUDIES



V. Jaanusson at Palaeontological Institute, Uppsala University, in 1947. Photo by H. Neuhaus.

The Gustav Adolf Natural Sciences Circle (in Estonian *Gustav Adolfi Loodusteaduslik Ring*; GALR) was a pupils organization acting at Tallinn Gustav Adolf Secondary School in 1937–1949. The main initiators of the circle were two teenagers: Hugo Männik (1922–1993), a later botanist, and Valdar Jaanusson (born 30. 06. 1923). The role of H. Männik in botany was recently discussed by V. Jaanusson and E. Parmasto; we concentrate only on the activities of V. Jaanusson.

GALR began as a usual circle of schoolboys interested in natural history. It organized discussions on literature-based topics (e.g. dinosaurs), excursions to collect fossils and examine rocks. A group of his classmates and younger schoolboys gathered around V. Jaanusson, and under his guidance a section of geology was formed in 1939. Among the initiators were Ralf Männil and Jüri Martna, later well-known geologists, Sulev Kiin (was killed during the

war), and a later physicist Hindrek Neuhaus; Ago Aaloe and the authors of this note joined the group a few years later.

The geology section commenced purposeful field studies for mapping smaller areas, collecting and identifying fossils with a firm aim to solve certain geological problems. An example is the Vormsi Project for the study of the geology of an Estonian island. During the summers of 1939–1943 rich geological material was collected which allowed V. Jaanusson to revise the stratigraphy of the Upper Ordovician Lyckholm Stage. Preliminary ideas were published already in 1939, a short account where new stage names Saunja, Vormsi, and Pirgu were introduced appeared in Finland in 1944. The full review, however, was finished later when V. Jaanusson was working at Uppsala University (Jaanusson, 1939, 1944b, 1956). With only minor changes the new threefold stage subdivision reasoned by him is recognized also now. The Vormsi studies were planned as a complex research, therefore also subfossils were collected, geomorphology of shorelines described, etc. The results of these observations were summarized in a paper on the postglacial development of Vormsi Island (Jaanusson, 1944a).

Another GALR project consisted in the study of the upper Middle Ordovician stages, mainly in the environs of Tallinn. V. Jaanusson together with R. Männil discovered several specific clay interbeds, now known as K-bentonites or volcanic ash beds. Although V. Jaanusson understood their origin only later, after having seen similar beds in Västergötland (Jaanusson, 1948), the newly discovered beds were used for the correlation of outcrops on Pääsküla Hill near Tallinn. On the basis of these data a detailed geological map of the area was compiled (in 1941–1943) and the base of the Keila Stage was defined as coinciding with the “big” bentonite bed. This early proposal as well is still accepted in modern stratigraphical classifications.

Results of these and other studies were published in a review paper about the Viru Series by Jaanusson (1945) very soon after his arrival to Sweden. And again, as in the case of the Vormsi Project, beside bedrock he paid much attention to Quaternary geology (Jaanusson, 1947).

Speaking about the role of GALR, we should note also other "mapping" projects which resulted in detailed maps in the early 1940s or publications somewhat later. For example, Neuhaus (1942) compiled a map of the environs of Sõjamägi elevation in the eastern part of Tallinn, where Palaeozoic rocks from Aseri to Jõhvi (now Haljala) stages crop out. The upper Ordovician and lower Silurian of the Tapa district were studied by Martna (1957) and the upper Ordovician of the Kohila and Noarootsi regions by Jaanusson (1956).

Palaeobiology has been V. Jaanusson's favourite topic since the first field works, especially at Jaani church on Saaremaa Island. Using the methodology of biocoenology of recent plants recommended by H. Männik, he tried to understand the community structure of fossil organisms and the so-called faunal diversity dynamics. The quantitative approach gave interesting data, but their interpretation needed more substantial knowledge and so these materials were partly used in publications much later (Jaanusson, 1984). However, his ideas that arose long ago were applied in the well-known Vattenfallet faunal dynamics project (Jaanusson, 1979).

One more aspect should be noted. In the activities of GALR there was almost no positive influence of schoolteachers noted, but early contacts and support from Artur Luha (Estonian Geological Committee) and especially Prof. Armin Öpik and Karl Orviku (University of Tartu) were extremely encouraging for V. Jaanusson and his schoolmates.

Paraphrasing the heading of a paper by V. Jaanusson, we may ask: What is so special about GALR? In short, it seems most important to us that this schoolboys circle taught its members for independent scientific work and thus became a nursery for a new generation of Estonian geologists.

With his scientific and pedagogical talent V. Jaanusson has played a leading role in the process of educating young geologists. His 75th birthday is on 30 June and we are glad to wish

him many happy returns of the day. We also include here all good wishes and thanks for cooperation from the editorial staff of the *Proceedings*.

The authors thank Valdar for sending them many notes about GALR history.

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Dimitri KALJO and
Arvo RÕÖMUSOKS