

OBITUARY

Farewell to Professor Aleksis Dreimanis (1914-2011)



Aleksis Dreimanis.
Photo by V. Zelčs, 2003.

Aleksis Dreimanis passed into eternity at University Hospital, London Ontario on Friday morning, July 8, 2011, sinking into deep sleep a day after undergoing surgery, little more than a month before his 97th birthday. The news of his passing seems unacceptable. Aleksis was always able to change with the times, and in contact with him one tended to forget how long has been his life's journey. He always generously shared his knowledge and experience, and spoiled us all through his humane goodness, his honesty, and his loyalty.

Aleksis Dreimanis, born and grown up in Latvia, belongs to the Quaternary community of the world, being one of its leaders whose ideas have been included in numerous textbooks. Much can be said about his scientific career, but still more about his personality. Even during the hard days of World War II and Soviet occupation, he stayed optimistic and was sure that one day Latvia will be free from totalitarianism. His optimism and passion have inspired not only his students but also his colleagues of different generations. Scientific sharpness and detailed field studies, supplemented by laboratory analyses, have always been in the focus of all his scientific conclusions. With

Aleksis one could agree or disagree – and still be good friends. He was a noble man and true scholar. His enthusiasm, energy and diplomacy were well combined with multi-lingual knowledge, so rare in the scientific community nowadays.

Aleksis Dreimanis was born into a family of teachers on August 13, 1914, in Valmiera, Latvia. Because of evacuation of the Rīga Alexander High School which was his father's workplace to Saransk, in the middle part of the European Russia during World War I, Aleksis spent three years of his childhood in Saransk where he learned Russian writing and reading. The family came back to Latvia in 1920. After graduation from the Rīga First High School he started studies in the Department of Natural Science at the Mathematics and Science Faculty of the University of Latvia. In 1938 he finished his studies with Magister *rerum naturalium* degree in geology.

He published his first scientific paper at the age of 21 in 1935, as a third year student. This paper was the first Latvian publication on glaciotectonics and one of the first studies in the world where glaciotectonic deformations were combined with stratigraphy. Therefore Aleksis Dreimanis was probably the first who distinguished kinetostratigraphic units in glacial stratigraphy even before Asger Berthelsen (1973) had proposed the idea of kinetostratigraphy. In 1939, he published a method for lithologic investigation of the 0.5–1.0 mm fraction of tills for stratigraphical purposes, later known in the Soviet literature as *The Method of Dreimanis*. He completed his habilitation degree in 1942.

In his thirties Dreimanis was a classical naturalist, a good combination of past and present, being at the same time geologist, botanist, malacologist and archaeologist, a true Linnean scholar and true “Quaternarist”, able to do palynological analyses himself. Unfortunately, most of his pollen diagrams were lost during wartime. Dreimanis was the first who found conclusive evidences for three Pleistocene glaciations in Latvia (1943). He was also in charge of Quaternary mapping of western and central Latvia, and completed the first detailed map sheet in a scale of 1:25 000. In his well-known till studies Dreimanis has always used multiple criteria (lithology, mineralogy, till fabric,

glacial tectonics, chemistry, grain-size, etc.) which he put into practice already in his first student competition project. Already in his young years he was invited to solve lithostratigraphic problems even abroad. In Estonia he established clear differences in the fine gravel fraction between upper and lower tills in the interglacial sections at Rõngu and Karuküla. Later, as a professor at the University of Western Ontario in Canada, he saw similar sections in the bluffs of lakes Erie and Ontario and developed the well-known classical stratigraphic schemes of the last glaciation in the Great Lakes region of Northern America.

As a reserve officer, Dreimanis was drafted to the Latvian Legion during the German occupation in the Second World War. He was assigned to be a military geologist and was sent to Germany to join the geological unit. He journeyed to Northern Italy to do mapping geology of the River Po region. He became a prisoner of war in Italy, but after 18 months he was reunited with his family in a refugee camp in Germany. During 1946–1948 he was teaching at the Baltic University for Displaced Persons camps in Hamburg and Pinneberg in Germany.

In 1948, Dreimanis immigrated to Canada to assume a lecturer position at the University of Western Ontario in London. The university promoted him to Associate Professor in 1956, then to Professor in 1964. In 1980 the university made him an Emeritus Professor. Since 1948 up to the present, he has done much for the study of the Quaternary geology of his second homeland, Canada, teaching hundreds of young geologists and geographers. He has supervised 28 graduate students and 15 postdoctoral fellows, produced more than 200 publications in a wide range of topics, most recently in 2009 at age 95. Several Canadian institutions called on him for his Quaternary expertise, including the Geological Survey of Canada, the Ontario Department of Mines, and the Ontario Department of Planning and Development for the St. Lawrence Seaway Authority, the Thames River Conservation Authority and various private companies.

It is not easy to find out which is the most important topic in his long-term studies, but probably it is the till genesis and classification, establishment of quantitative relationship between the bedrock and till lithology that allowed him to find out the details of till formation and to develop the Quaternary stratigraphic and climatic record of the Great Lakes region.

Professor Dreimanis became world-renowned through the INQUA Commission on Genesis and Lithology of Glacial Deposits, which among the specialists was known better as *The Commission of Aleksis*. He invited representatives from 32 countries to work at the Commission. Being aware of the advanced studies of glacial deposits in the Baltic Region, he appointed

Peribaltic scientists as leaders of the work groups. Most of the meetings organized by him have been of great importance for the development of international projects and concepts. Due to his effective and enthusiastic leadership on the Commission and the INQUA Working Group on tills he carried the nickname '*Dr. Till*'. Over the last two decades he has participated in many meetings and field symposia of the INQUA Peribaltic Regional Working Group, and during the field symposium in 1998 he demonstrated in sections of the Daugava River Bluffs how complicated three-dimensional kineto-architectural constructions could assist in the determination of ice movement.

When Latvia regained independence, he resumed participation in Pleistocene research in Latvia, writing together with local geologists several overview papers and reports (Āboltiņš, Dreimanis 1995; Dreimanis, Zelčs 1995; Zelčs, Dreimanis 1997; a. o.) including the Latvian chapter to the *Encyclopedia of European and Asian Regional Geology* (Dreimanis, Kārklīš 1997). Latvian-English-German geologic terminology was published by Dreimanis and Kārklīš (1986) in the *Dictionary of Latvian Technical Terminology* and related glacial terms in Latvian and 20 other languages in the Appendix C of Dreimanis (1989).

For his brilliant work Aleksis Dreimanis has received many awards. He was elected Foreign Member of Latvian Academy of Sciences (1990) and received honorary doctorates at the University of Waterloo (1969), the University of Western Ontario (1980), and the University of Latvia (1991). He became honorary member of the Geographical Society of Latvia (1990), the Association of Geologists of Latvia (1991), and the Latvian Association for Quaternary Research (1998), a Distinguished Fellow of the Geological Association of Canada (1995), Fellow of the Royal Society of Canada (1979), and Honorary Member of INQUA (1985). He received the University of Helsinki Medal (1990), Logan's Medal (Geological Association of Canada), Albrecht Penck Medal (DEUQUA), W. A. Johnston Medal (CANQUA). He was most proud of being the recipient of the highest award of Latvia, the Three Star Order in 2003.

We know that many his new ideas and numerous not yet finished papers have stayed on his work table. His scientific career has spanned 75 years but we believe that his legacy will live much longer and will give inspiration for further findings in Quaternary science. In 2010 Canadian Quaternary Association (CANQUA) has created a new doctoral scholarship in honour of Aleksis Dreimanis to be awarded biennially starting in 2011. His name is already included in many encyclopaedias together with names of the world's foremost Earth scientists.

Vitālijs Zelčs (Rīga) and Anto Raukas (Tallinn)

ADDENDUM

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