

CHRONICLE

**Romanovsky Nikolay Nikitich**  
(14.05.1932–20.03.2016)



On March 20, 2016, Nikolay Nikitich Romanovsky, an outstanding Russian permafrost scientist and hydrogeologist, doctor of geology and mineralogy, professor emeritus of the geology department of the Moscow State University, passed away after a long illness.

N.N. Romanovsky was born on May 14, 1932 in the town of Rubezhnoye near the city of Lugansk. His parents, Nikita Vasilyevich Romanovsky and Anna Nikolayevna Belovitskaya, were chemical engineers. In the mid-1930s, the years of Stalin's purges, Nikita Vasilyevich Romanovsky was imprisoned to die in prison in 1937. After World War II, the Romanovskys settled in the vicinity of Moscow, and in 1950, Nikolay finished the secondary school in the town of Lubertsy, Moscow region, with a silver medal award. After the school graduation, Romanovsky was admitted to the geology department of the Moscow State University, where he first studied at the faculty of ground studies, and then at the faculty of permafrost studies, being one of the first students of this faculty. In 1955, Romanovsky graduated from the department *cum laude*, and ever since then, his life was connected with it.

In 1955, Romanovsky became the graduate student at the permafrost faculty. Under supervision of B.A. Savelyev, he conducted his first studies of the

structure of underground ice in the Tiksi laboratory and participated in the first expeditions to study the Quaternary deposits in the area of Dmitry Laptev Bay. At the beginning of 1959, he successfully defended a candidate's thesis on the subject "Quaternary Deposits of Bolshoy Lyakhovsky Island and of the Northern Part of the Yano-Indigirskaya Plain (the Stratigraphy and the Permafrost-Fascial Analysis)", and in July he was awarded the candidate's degree in geology and mineralogy.

Working at the university presupposes parallel investigations and teaching. Beginning with 1960 (for 30 years), Romanovsky performed the duties of the head or scientific supervisor of the expeditions organized by the geology department, and in 1963, he started his career in the area of education.

The permafrost studies conducted by Romanovsky strike the imagination by the vast geography of the studies and their practical application to the economy of the country. A large part of the studies was conducted in Central Siberia, Yakutia, in the North-East and Far East of the USSR, in Northern Transbaikalia, as well as in Alaska, Canada, Poland, and even in the South African Republic. The scientific interests of Nikolay Nikitich were always amazingly broad, while the scope and depth of his studies of permafrost and in the related sciences only grew

with the time. According to him, he was always interested in the issues of general, regional and historical permafrost studies, development of permafrost processes and phenomena, the problems of permafrost hydrology, the methodological aspects of the permafrost studies and survey; the permafrost origin, the fascial permafrost analysis of the Quaternary deposits, the environmental protection issues and rational nature use. A special place in his works was occupied by the evolution of offshore permafrost and the impact of gas hydrates on it, which was the subject of Romanovsky's research for 30 years.

The large field material obtained by Romanovsky himself and in cooperation with his colleagues allowed him to develop a method of permafrost and hydrogeological and engineering permafrost survey, necessarily accompanied by permafrost prediction. In his opinion, this characteristic of the result of permafrost survey was a distinctive feature of the school of V.A. Kudryavtsev, whom Romanovsky considered to be his teacher. Later (from the beginning of 1980s), when the issues of environmental protection and rational nature use became topical, permafrost prediction became one of the foundations for their solution.

Romanovsky stated a balanced concept of development of polygonal vein structures and connected it with the historical, climatic and geological features of the permafrost regions. As a result, he prepared and successfully defended a doctorate in 1975 on the subject "Regularities of Formation of Polygonal Vein Structures Based on Frost Cracking". Two years after, he was offered the position of a professor at the permafrost faculty.

Nikolay Romanovsky was the author of more than 300 papers and books, including monographs and textbooks. All his works, beginning with his first publications, which appeared in the second half of the 1950s, and up to his last paper published in 2011, were always known for the brilliant presentation of new ideas and approaches, concepts and strong consolidation of the material collected. His monograph "Formation of Polygonal Vein Structures" (1977), based on his doctorate, deserves a special mention. Even 40 years after, this monograph remains to be one of the staples in this area. The name of Romanovsky is associated with the significant progress in investigating the regularities of frost cracking and the related formations and landscapes, in the study of boulder streams, aufeis of ground waters, transformed cryohydrogeological structures, and, over the recent years, interaction between permafrost formations with underground gases and formation of the subsea offshore permafrost zone.

In 1963, Romanovsky prepared his first university course "Underground waters in the permafrost zone", which became the first course in this subject at the Moscow University. Over the following years, he prepared and delivered the following courses of lec-

tures: "Cryosolic and hydrogeological features of permafrost regions", "Regional geocryology", "General permafrost studies (Geocryology)", and "Cryolithology and fascial permafrost analysis". Over a quarter of a century, beginning with the 1980s, he delivered a course of lectures "Foundations of the origin of lithosphere", in which he first considered wholly the geographic and geological regularities of landscape changes and the structure of the upper lithospheric horizons as a result of permafrost formation. His textbook under the same title published in 1993 still remains topical. At his faculty of the Moscow University, Romanovsky took active part in preparation of many monographs and textbooks: "General Permafrost Studies" (1978), "The Methodology of Permafrost Survey" (1979), the Geocryologic Map of the USSR of the scale of 1:2 500 000 and other publications. In 1993, Romanovsky was awarded the State Prize for his participation in the preparation of the five-volume edition "Geocryology of the USSR" (1989). In addition, he prepared a popular science book "Cold of the Earth" (1980), aimed at attracting schoolchildren to the studies of geology. He was the scientific supervisor of 22 candidate theses and 3 doctorates, but even more dissertations were defended due to the Professor's advice and consultations. Over many years, Romanovsky was the learned secretary and later a member and a deputy chairman of specialized scientific councils for awarding scientific degrees of candidates and doctors of sciences in permafrost studies.

Over his entire life, Nikolay Nikitich was involved in the process of science organization and management. He was deputy chairman of the United Scientific Council of RAS in the cryology of the Earth (1966), and from 1989 to 1995, he was a member of the Technology Council of the Ministry of Environmental Protection and Nature Use of the Russian Federation; he was always invited to take part in expert examinations of the state projects of Gosplan of the USSR and of Gosstroy of the USSR, and other ministries and agencies. In 1976, Romanovsky was appointed head of the complex BAM expedition; he was deputy chairman of the Council of the Rector of MSU in development of the BAM region, and later he became the council's chairman to head it until 1990. Over many years, he was an expert of the Russian Foundation for Basic Research.

Romanovsky is one of the scientists specializing in permafrost studies best known in the international community, a recognized specialist of an international level. Back in the late 1960s, he had internship at the universities of Poland and knew the permafrost scientists from Canada and the USA. In 1987, Romanovsky became a member of the National Permafrost Committee of the International Permafrost Association (IPA); beginning with 1992, he was a member of the commission "Natural environments with permafrost

processes” of the International Geophysical Union, and in 1993 he was elected Vice-President of IPA to serve for five years. In the early 1990s, Romanovsky contributed to close cooperation between the permafrost experts of Russia and the permafrost scientists of Germany, which turned into many years’ collaboration with the Alfred Wegner Institute for Polar and Marine Research (AWI) and any other institutes and universities of Germany. Nikolay Romanovsky headed and supervised many field studies in the eastern Arctic region of Russia; he supervised the permafrost studies of both Russian and German students, graduate students and young scientists. During 15 years, he was the scientific supervisor of the joint Russian-German interdisciplinary project “The system of the Laptev Sea.”

Over many years, Romanovsky was involved in editing activities. From 1966 to 1992, he was the secretary-in-charge and then a member of the editorial board of the journal *Vestnik Moskovskogo Universiteta*, Geology series, and from 1997, he was a member of the editorial board of the journal *Kriosfera Zemli*. For a long time, he was a member of the editorial boards

of the international journals *Permafrost and Periglacial Processes*, *Biuletyn Peryglacjalny*, *Polar Geography and Geology*, as well as the consulting editor in permafrost studies of the Mining Encyclopedia (1986–1989).

For his achievements in the development of science and preparation of young scientists, Romanovsky was awarded the title of the honored representative of science and technology of the Russian Federation (1995), of a professor emeritus of MSU (1999), as well as of a Soros professor (1994). However, the award Romanovsky was most proud of was the life achievement award of the International Permafrost Association (2012), as only two persons in the world were awarded it.

The deep professional knowledge of Nikolay Romanovsky, his broad outlook, high demands for the quality of scientific results, his honesty and punctuality in relations with people – those were only few of the qualities which brought him respect and admiration of his friends and colleagues. They will always remember Nikolay Nikitich Romanovsky...

*Colleagues, friends, and former students*