

# Bohuslav Cambel: An outstanding geochemist and his role in history of Geologica Carpathica (100 years since his birth)

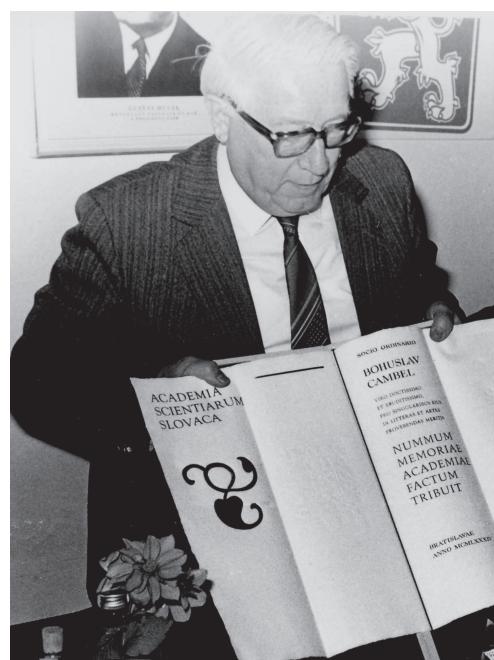


Bohuslav Cambel  
1919–2006

The Academician Bohuslav Cambel, Doctor of Science, was born on October 29, 1919 in Slovenská Ľupča. He studied at the secondary school (Gymnasium) in Banská Bystrica where he graduated in 1939. He continued his studies at the Faculty of Natural Sciences at the Comenius (at that time Slovak) University in Bratislava, where he began as a research assistant at the Mineralogy and Petrography Institute, Faculty of Natural Sciences. He received a Doctor of Natural Sciences title (RNDr.) in 1949, he became an Associate Professor in 1953 and finally a full Professor of the Comenius University in 1957. He founded and led the Department of Mineral Resources and Geochemistry (1952–1963) and later the Department of Geochemistry (1969–1980). During that time, he held positions of the Vice-Dean (1952–1953) and the Dean (1959–1961) of the Faculty of Natural Sciences, and lastly the Rector (Chancellor) of the Comenius University (1966–1969). While holding the last position, Prof. Cambel had to face a difficult period during the invasion of the Warsaw Pact military troops into Czechoslovakia (1968), and he helped many capable young scientists to migrate abroad at that time. He was also a member of the Presidium of the Slovak Academy

of Sciences (1964–1969). Prof. Cambel obtained the highest scientific degrees: Doctor of Sciences (DrSc.) in 1963, Corresponding Member of the Slovak Academy of Sciences (1964) and the Czechoslovak Academy of Sciences (1968), as well as Academician, an ordinary member of the Slovak Academy of Sciences (1972). He was also appointed as Doctor honoris causa (Dr. h. c.) of the Taras Shevchenko National University in Kyiv, Ukraine (1968).

Between 1963 and 1989, Bohuslav Cambel was the director of the Geological Institute (the Geological Laboratory before 1966), within the frame of the Slovak Academy of Sciences (SAS) in Bratislava. He re-established laboratory into a modern scientific institute mainly by creating the Geochemical Department with an appropriate and well-accessible instrument base, including electron probe X-ray microanalyser (JEOL JXA-5A), scanning electron microscope, X-ray fluorescence spectrometer and other analytical instruments. In 1981, Prof. Cambel founded the Mineral Resources Department within the Geological Institute of the Slovak Academy of Sciences, in Banská Bystrica, where currently the Institute has its main high-level instrumental base. He was the Editor-in-chief of the *Geologica Carpathica* (formerly *Geologický Zborník — Geologica Carpathica*) journal during 1965 to 1990, which was gradually transformed to a prestigious international geological magazine. Bohuslav Cambel enthusiastically organised the work of the editorial board for more





than 30 years, as well as editorial office in effort to maintain an excellent level and reputation of the journal.

Bohuslav Cambel focused his scientific activities on the research of magmatic and metamorphic rocks (granites, metapelites, amphibolites, metacarbonates and skarns), their minerals and the associated mineral deposits, especially in the Paleozoic basement of the Malé Karpaty (Small Carpathians) Mountains near Bratislava. On the basis of geological, petrographic and geochemical data and results, he elaborated the geological, especially magmatic and metamorphic evolution of the Malé Karpaty crystalline basement (published in numerous papers in 1950–1990; see ref. in Babčan 1979), which he depicted also on a geological map in the scale of 1:50,000 (Mahel' & Cambel 1972). Prof. Cambel was a leading author of monographs concerning chemical composition of pyrite and pyrrhotite from various genetic types (Cambel & Jarkovský 1967, 1969; Cambel et al. 1977) and geochemistry of the West-Carpathian metamorphic basic rocks (Cambel & Kamenický 1982). At the time when the crystalline basement of the Western Carpathians was considered almost all Precambrian in age, he advocated their Paleozoic age, based on detailed geological, petrological, geochemical and geochronological investigations. In collaboration with geochemists from the Russia, Ukraine and Armenia (at that time the Soviet Union), he gathered the modern isotopic dating of granitic rocks from various regions of the Western Carpathians (published in *Geologica Carpathica*) and these results showed their correct Carboniferous age. The geochronological investigations of Paleozoic granitic and metamorphic rocks from the West-Carpathian area were summarized in monograph

(Cambel et al. 1990), which gave the basis for today's knowledge of the age and origin of Variscan granitic magmatism and related metamorphic processes. He has always focused his scientific work on practical outputs and therefore worked closely with the companies Ore Mines, Uranium Survey and Geological Survey. Prof. Bohuslav Cambel left behind a geochemical science school representing a continuation of his practical and scientific way of thinking.

The name of Bohuslav Cambel joined the list of the 2000 most important scientists of 20<sup>th</sup> century according to the University of Cambridge in 1998. Moreover since 2013, due to his enormous scientific contribution, the Earth Science Institute of the Slovak Academy of Sciences started awarding outstanding personalities of geoscience research by the Medal of Academician Bohuslav Cambel.

## References

- Babčan J. 1979: Academician Bohuslav Cambel, DrSc. – 60 years old. *Geol. Zborník – Geol. Carpath.* 30, 395–411.
- Cambel B. & Jarkovský J. 1967: Geochemie der pyrite einiger Lagerstätten der Tschechoslowakei. *SAV*, Bratislava, 1–493.
- Cambel B. & Jarkovský J. 1969: Geochemistry of pyrrhotite of various genetic types. *Comenius University*, Bratislava, 1–333.
- Cambel B. & Kamenický L. 1982: Geochemistry of metamorphosed basic magmatites of West Carpathian Tatoverporides. *Veda*, Bratislava, 1–514 (in Slovak with English resume).
- Cambel B. & Vilinovič V. 1987: Geochemistry and petrology of the granitoid rocks of the Malé Karpaty Mts. *Veda*, Bratislava, 1–247 (in Slovak with English resume).
- Cambel B., Kráľ J. & Burchart J. 1990: Isotopic geochronology of the Western Carpathians crystalline complex with catalogue data. *Veda*, Bratislava, 1–183 (in Slovak with English resume).
- Mahel' M. & Cambel B. 1972: Geologická mapa Malých Karpát 1:50000. *Geologický ústav Dionýza Štúra*, Bratislava.

Igor Broska and Pavel Uher