## KRONIKA POLSKIEGO TOWARZYSTWA GEOLOGICZNEGO CHRONICLE OF THE GEOLOGICAL SOCIETY OF POLAND

## ALGIRDAS GAIGALAS (1933 – 2009)



Sudden and premature death of Lithuanian honorary member of the Geological Society of Poland, Professor Algirdas Gaigalas on June 4<sup>th</sup>, 2009 in Vilnius, was a painful shock for his Polish coworkers and friends.

Born on 27<sup>th</sup> February 1933 in Gaižunai near Pakruojis (northern Lithuania), he graduated in geology from the Vilnius University in 1957 and was employed in the Lithuanian Institute of Geology and Geography, being since 1971 in charge of the head of its several departments. Since 1978 till his decease, A. Gaigalas was also delivering lectures in several disciplines for students of geology of the Vilnius University in charge of its professor and later (1995–2003) also of the Vilnius Pedagogical University. His doctoral dissertation (1977) was devoted to the theory of formation of litho-sedimentary cycles of Pleistocene glacial deposits in Lithuania and adjacent countries. This problem was further developed in his habilitation thesis (1986).

Prof. Gaigalas was unquestionably one of the most eminent Quaternary geologists of peri-Baltic countries. He developed petrographic method of investigations of moraine deposits, initiated by Stanisław Małkowski's school (A. Jaroszewicz-Kłyszyńska-Halicka, V. Čepulytë, A. Korybut-Daszkiewicz, and others) at the Stefan Batory University, supplementing them by modern geochemical, palaeomagnetic, geochronological and isotopic studies. Consequently, A. Gaigalas could elaborate a revised stratigraphic and palaeogeographic scheme of the peri-Baltic Late Pleistocene deposits. He was also one of the first researchers of moraines and buried palaeovalleys occurring at the Baltic Sea floor, describing also typical boulders found there.

Prof. Gaigalas was one of the main Lithuanian activists in the protection of nature, contributing significantly to the creation of several geological natural reserves. As a talented advocate of geosciences he was long-time president of the Lithuanian Society of Naturalists, editing the monthly "*Mokslas ir gyvenimas*" (Science and life). Very significant was his activity as scientific editor of the main Lithuanian geological-mineralogical periodical "Geologija". Besides, he was a member of advisory board of international periodical "Geochronometria", edited by the Silesian University of Technology, and of "*Encyclopedia of Lithuania Minor*".

Scientific, pedagogical and organizational achievements of Algirdas Gaigalas were highly appreciated in Lithuania and other countries. Consequently, he was elected the honorary member of the International Association for Quaternary Research (INQUA) and the foreign member of the Russian Academy of Natural Sciences. Moreover, he was nominated honorary member of the geological societies of Lithuania and Poland and of the Association of Polish Geomorphologists.

Algirdas Gaigalas was one of the most active Lithuanian specialists in the history of geosciences, being since 2006 the member of International Commission on the History of Geological Sciences. His publications in this field appeared already in 1969 and 1972 and were devoted to the history of geology in the Vilnius academic center since the 19<sup>th</sup> century, mainly to petrographic and other studies of Quaternary deposits by Polish and Lithuanian geologists of S. Batory University (now Vilnius University). In this period he was cooperating with geoscientists of the Museum of the Earth in Warsaw, Zbigniew Wójcik and Barbara Kosmowska-Ceranowicz. It should be emphasized that this Museum was at that time directed by Stanisław Małkowski and, afterwards, by Antonina Halicka. A. Gaigalas was also the author of a scenario of the geological part of historical exposition organized during the celebrations of the 400<sup>th</sup> anniversary of the Vilnius University and of the paper on geology at the S. Batory University in the monograph "Geologija Vilniaus Universitete", edited in Lithuanian in 2003. One year later he published, also in Lithuanian, a paper describing the geological collections of the old Vilnius University based on the analysis of Ignacy Jakowicki's catalogue.

As follows from these and other publications, the interest in the history of his parent University and the contacts with Polish geoscientists were also vivid after Lithuania had recovered its independence. In 1995, A. Gaigalas was one of the main organizers of a Lithuanian-Polish symposium devoted to geologist Czesław Pachucki (Česlovas Pakuckas), professor of the Lithuanian universities in Kaunas and Vilnius, who, for the second period of his life, was living and working in Poland as professor of the universities in Wrocław and Lublin.

In the last two decades his cooperation with Polish specialists in Quaternary geology, modern methods of geochronology and isotope analysis was distinctly intensified. This refers, first of all, to the Department of Geomorphology and Quaternary Geology of the Gdańsk University and the Institute of Physics of the Silesian University of Technology in Gliwice, and also to the Institute of Physics of the Maria Curie-Skłodowska University in Lublin, and the Institute of Geography of the Mikołaj Kopernik University in Toruń. This cooperation was manifested by publishing the majority of results of his recent common investigations with Polish colleagues in the already mentioned periodical "*Geochronometria*". It should be emphasized that one of his last papers, devoted to the origin of Baltic amber on the ground of hydrogen, carbon and sulfur isotopic data, obtained by co-author Prof. Stanisław Hałas, was also published in this periodical.

Very recently, Prof. Gaigalas has also initiated a fruitful cooperation with the Institute of Geological Sciences of the Jagiellonian University, namely with Prof. Alfred Uchman, specialist in ichnology. The effect of their common research works in Lithuania during five seasons in 2003–2007 are several papers published mainly in international periodicals, which initiated ichnological investigations in this country. The researches concerned first of all Pleistocene varved clays, as well as Neogene, Late Pleistocene and Holocene fluvial sediments. Moreover, additional researches were made in Holocene dunes of the Curonian spit and in the Devonian sediments, the results of which are under elaboration. In memory of the Polish participants of these researches, Prof. Gaigalas remains as an open-minded, very experienced researcher and warm-hearted man, whose feature was a prepossessing hospitality. He used to guide his visitors to historically remarkable places and presenting for several times different views on many historical aspects, but always with a great respect to different opinions and people. His knowledge of the Polish language helped additionally in contacts with our country. It also facilitated the studies of archival materials concerning the history of geosciences at the parent Vilnius University and the achievements of his Polish predecessors in Quaternary geology of this region.

With the unexpected decease of Prof. Algirdas Gaigalas his Polish co-workers and colleagues have lost one of best Lithuanian friends and a man of deeply human personality, who for a long time will remain in our memory.

Wojciech Narębski, Zbigniew Wójcik, Alfred Uchman

## Selected publications by Prof. Algirdas Gaigalas co-authored by Polish researchers

- Gaigalas, A., Kovalukh, N.N., Pazdur, A. & Pazdur, M.F., 1996. Interpretation of radiocarbon data and isotopic composition of carbonate deposits from Vilnius environs, Lithuania. *Geochronometria*, 14: 121–129.
- Gaigalas, A., Pazdur, A. & Pawlyta, J., 2001. Radiocarbon age of Late Pleistocene glaciogenic sediments in Jonionys section of Merkine (Eemian) interglacial. *Geochronometria*, 20: 75–80.
- Gaigalas, A., Pazdur, A., Halas, S., Pawlyta, J. & Kazakauskas, V., 2001. Stable isotopes as record of climatic changes of Daniglacial in Lithuania. *Geochronometria*, 20: 81–86.
- Gaigalas, A, & Fedorowicz, S. 2002. Thermoluminescence dates, Mid and Late Pleistocene exposures, Eastern Lithuania. *Geologija*, 38: 31–40.
- Gaigalas, A., Fedorowicz, S., Racinkas, A. & Bauzienė, J., 2003. Activity of <sup>137</sup> Cs isotope in diluvial soils of East Lithuanian Uplands. *Geologija*, 42: 26–32.
- Gaigalas, A. & Uchman, A., 2004. Trace fossils form the Upper Pleistocene varved clays S of Kaunas, Lithuania. *Geologija*, 45: 16–26.

- Gaigalas, A., Dvareckas, V. & Florek, W., 2005. The influence of tectonic movements on Lithuanian rivers longitudinal profiles morphogenesis. In: Florek W. (ed.), Geologia i geomorfologia pobrzeża południowego Bałtyku, 6: 273–284.
- Gaigalas, A., Fedorowicz, S. & Melešytė, M., 2005. TL dates of aquatic sandy sediments of Middle – Upper Pleistocene in Lithuania. *Geologija*, 51: 39–50.
- Gaigalas, A., San'ko, A., Pazdur, A., Pawlyta, J., Michczyński, A. & Budenaitė, S., 2007. Buried oaks and malacofauna of Holocene oxbow lake sediments in the Valakupiai section, Lithuania. *Geologija*, 58: 34–48.
- Gaigalas, A., Graniczny, M., Satkunas, J. & Urban, H., 2008. Česlovas Pakuckas (Czesław Pachucki): pioneer of modern glaciomorphology in Lithuania and Poland. In: Grapes, R.H., Oldroyd, D. & Grigelis, A. (eds), History of Geomorphology and Quaternary geology. Geological Society of London, Special Publication, 301: 141–147.
- Gaigalas, A. & Fedorowicz, S., 2009. Cooperation between Gdańsk and Vilnius universities in Pleistocene geochronology investigations, *Geologija*, 51: 76–87.
- Gaigalas, A. & Hałas, S., 2009. Stable isotopes (H, C, S) and the origin of Baltic amber. *Geochronometria*, 33: 33–36.
- Pawlyta, J., Gaigalas, A., Michczyński, A., Pazdur, A. & San'ko, A., 2007. Time scale for climatic events of Subboreal/Subatlantic Transition Valakupiai site, Lithuania. *Radiocarbon*, 49: 889–897.
- Uchman, A., Gaigalas, A., Melešytė, M. & Kazakauskas, V., 2007. Trace fossil Asthenopodichnium lithuanicum isp. nov. from the Late Neogene brown-coal deposits, Lithuania. Geological Quarterly, 50: 437–446.
- Uchman, A., Gaigalas, A. & Kazakauskas, V., 2008. Trace fossils from the Upper Pleistocene glaciolacustrine laminated sediments of Lithuania. *Geologija*, 50: 212–226.
- Uchman, A., Kazakauskas, V. & Gaigalas, A., 2009. Trace fossils from Late Pleistocene lacustrine varve sediments in eastern Lithuania. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 272: 199–211.