## A TRIBUTE TO PROFESSOR JOACHIM "ACHIM" SZULC (1954–2020)



On a cold winter day, 29 January 2020, Professor Joachim Szulc (born on 1st May 1954, in Żędowice) unexpectedly passed away in Kraków, when he was at the height of his scientific powers.

During his entire professional life, Professor Joachim Szulc was associated with the Institute of Geological Sciences of the Jagiellonian University. He graduated there in geology in 1980, after previously (in 1977) graduating in geography, also at the Jagiellonian University. In 1984, he defended his PhD thesis, entitled "Sedimentation of calcareous tufa in southern Poland" ("Sedymentacja martwic wapiennych Polski południowej"), supervised by Professor Ryszard Gradziński. Joachim Szulc obtained his habilitation in 2001 and received the title of Professor in 2008.

The versatile scientific abilities of Professor Joachim Szulc concentrated on the sedimentation of carbonates and the biological, geochemical, and tectonic controls of this process. His studies dealt with a wide spectrum of sedimentary environments, from continental to marine and a broad range of rocks from Devonian in age to those formed in modern times.

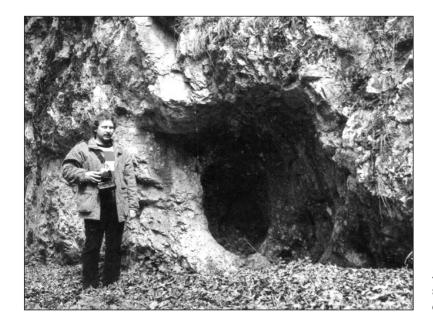
The Triassic period had a special place in Professor Szulc's studies. He focused on the multidimensional reconstruction of the Triassic evolution of the Germanic and adjacent Tethyan basins. He demonstrated that the evolution of the Germanic Basin proceeded under the influence of rifting processes in the Tethyan realm and that eustatic control resulted in small-scale cyclicity recorded in the deposits he studied. Professor Szulc's research proved that faunal migration in the Triassic Peritethyan basins was governed by the opening of rift-controlled seaways. He also concentrated on the results of palaeoseismic activity in Triassic carbonate strata in the Peritethyan and Tethyan carbonate deposits. In

most recent years, Professor Szulc studied Upper Triassic continental clastics, including the famous bone-bearing deposits of Silesia.

Studies of continental environments and karst processes also held an important place in Professor Joachim Szulc's research. The sedimentological studies of calcareous tufa, conducted in the framework of his PhD thesis, were continued by an interdisciplinary research team. They applied methods that were innovative at that time, namely SEM observations, radiocarbon dating and stable isotope analyses. This approach resulted in the precise reconstruction of Holocene palaeoenvironmental changes in southern Poland. The results were published in renowned international journals (Radiocarbon and Quaternary Research) in 1988, when few Polish geologists published in the journals of such status. Joachim Szulc continued research into freshwater carbonates, studying Permian Karniowice travertine, Recent tufa stromatolites, Tertiary lacustrine carbonates in the Narbonne Basin and the Upper Triassic Woźniki limestone. Carbonate speleothems were other subjects of his research interests. He defined several microfacies types of speleothem and studied the growth conditions of the socalled moonmilk speleothems. In recent years, the Neogene palaeokarst of the Opole region became the main topic of Professor Szulc's research.

Professor Joachim Szulc was fluent in English, German and French. He worked in close collaboration with numerous foreign geologists, namely from Germany, Slovakia, France, and Turkey. In 1993–1995, he was a laureate of the prestigious Alexander von Humboldt Foundation scholarship. He spent this time in Heidelberg, collaborating with Professor Thilo Bechstädt. He was invited as a visiting professor by American (Madison University, Southern

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Joachim Szulc in the field area of his doctoral studies, the Racławka Valley, Kraków Upland, during the 1980s. Photograph by R. Gradziński.



Members of the Polish speleological expedition to China with Chinese collaborators, December 1987, Guilin region; upper row (from the left): Lubomir Zawierucha, Professor Ru, Joachim Szulc (expedition leader), Alfred Uchman, Dr. Chen, Jarosław Tyszka, Marek Pięta, lower row: identity unknown, identity unknown, Beata Konior, Andrzej Ciszewski. Photograph by P. Dziadzio.

Methodist University), German (Universität Heidelberg, Universität Halle, Technische Universität Berlin) and French (Universite Bordeaux III) universities.

Courses led by Professor Joachim Szulc at the Institute of Geological Sciences of the Jagiellonian University were popular among students, since he possessed the uncommon ability to present even very complicated problems in a simple way. Three of his courses deserve special mention, namely "The sedimentology of carbonates and evaporites", "Palaeoclimatology" and "Wine geology". All these courses, especially the last one, attracted the interest of many students. Professor Szulc supervised three doctoral theses and 43 Master of Science theses.

Professor Joachim Szulc took part in the organization of several international and Polish scientific conferences. He was involved in the organization of two regional meetings of the International Association of Sedimentologists (Kraków in 1986 and Heidelberg in 1997). He was

the head of the organizing committee of the conference, 6th Annual Conference of SEPM-CES - Sediment 2009, held in Kraków and the joint meeting, 3rd Regional Symposium of International Fossil Algae Association and 3<sup>rd</sup> International Meeting of IGCP 380, held in Kraków in 1997. The most significant Polish conference organized by Professor Joachim Szulc, who acted as the head of the organizing committee, was the 1st Polish Geological Congress, held in Kraków in 2008, with the attendance of more than 700 participants. He also organized other conferences and led several geological fieldtrips, dealing with various aspects of geology, from the sedimentation of carbonate deposits to the geology of wine-producing regions. Professor Joachim Szulc was actively involved in organizational aspects of science. He performed various functions, among many others, as Head of the Institute of Geological Sciences of the Jagiellonian University (2008–2016), member of the Jagiellonian University Senate, (since 2017), President of



Professor Joachim Szulc with first-year geology students during a field course in spring 2019. Photograph by W. Wróblewski.



Professor Joachim Szulc with the Chief National Geologists, Dr. Piotr Dziadzio and the Director of the Institute of Geological Sciences, Jagiellonian University, Dr. Hab. Mariusz Kędzierski (his former MSc students). Photograph taken after the inauguration of the academic year 2019–2020, in the new building of the Institute of Geological Sciences on the University Campus by A. Wysocka.

the Scientific Board of the Polish Geological Institute—State Research Institute (since 2019), member of the Committee of Geological Sciences of the Polish Academy of Sciences (2012–2016), member of the Scientific Board of the Institute of Geological Science of the Polish Academy of Sciences (2012–2016), President of the Kraków Branch of the Polish Geological Society, member of the Central Board of this society (since 2008) and President of the Speleological Section of the Polish Copernicus Society of Naturalists (since 2017). He was also President of the Editorial Board of the *Annales Societatis Geologorum Poloniae* (since 2015 r.) and an editor of the *Geological Quarterly*.

"Achim" shared his time between Kraków, his hometown Żędowice and numerous trips abroad. But it was his homeland, the Opole region, that was of special importance in his life. There he was a household name and a community worker. He also was a councillor in Zawadzkie for five terms. He organized a regional geological exhibition in Kielcza,

which he equipped with unique samples of rocks and fossils. The exhibition was named after him in September 2020. He was also a great enthusiast of the local cuisine. There is none who could forget the excellent sausages and other meat dishes he brought to Kraków from his home region.

There is no doubt that Professor Joachim Szulc was an extremely talented man, an eminent researcher displaying a wide variety of scientific interests, and endowed with particular scientific abilities. He was a man of strong conviction and views, which he openly expressed. Some might have disagreed with them, but nobody would have ignored them. I am sure that everyone, who was fortunate enough to meet him, be taught by him or collaborate with him, will remember "Achim" as a well-rounded scientist, a person sincerely and deeply devoted to his passions, characterized by a fine sense of humour, and a man with a distinctive personality.

He is sadly missed.