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Professor Piotr Roniewicz (1936-2019)

In memoriam

Piotr Roniewicz was born in 1936 in Warsaw, however his family roots were in Stanisławów (nowadays Ivano-Frankivsk, Ukraine). He completed his university studies at the Faculty of Geology of the University of Warsaw in 1959, gaining a Master's Degree. He began his geological career at this Faculty already as a 4th year student. In 1981-1984 he was the Vice-Dean and later in 1984–1990 – the Dean of the Faculty. Professor Roniewicz worked there until his retirement in 2006.

His doctoral thesis (1964) dealt with Lower Triassic siliciclastic deposits from the Tatra Mountains and was supervised by Professor Edward Passendorfer. In 1969 Piotr Roniewicz received a D.Sc. degree based on a thesis dealing with the sedimentation of the Nummulite Eocene in the Tatra Mountains. In 1980

he was granted the scientific title of professor. During his academic years, Piotr Roniewicz supervised about a dozen master and numerous doctoral theses. His educational achievements went hand in hand with successful educational, organizational, publishing and expertise activities. Those educational achievements were restricted not only to the university, but also to teaching in schools and to the general public, as Professor Roniewicz dedicated much effort to popularizing Earth sciences in various mass media: radio, TV, and movies.

Most of his process-oriented publications are exceptional sedimentological analyses of various sedimentary formations formed in marine, transitional marine to continental, and continental environments



Piotr Roniewicz accompanied by the teachers of the Life Science course in the Holy Cross Mountains, Zachełmie Quarry, 2005 (A. Wysocka's archives).

in Poland and adjacent countries, especially in the Tatra Mountains, Holy Cross Mountains, Podhale and Roztocze Hills areas. However, they include also very important papers referring to modern sedimentary environments, the origin of bedforms, hardgrounds, trace fossils or submarine slumping.

Below, we share our memories of Professor Piotr Roniewicz. Having been prepared by his colleagues and friends, all of them are very personal. The image of Piotr emerging from these fragments of our personal memories becomes more complete, as a Professor, Teacher, Colleague and Friend. These memories are organised in chronological order to show you the history of Piotr's academic life and are supplemented with a list of his publications.

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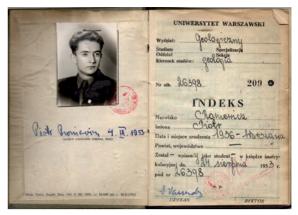
THE ACADEMIC SCHOOL OF PROFESSOR EDWARD PASSENDORFER

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In 1952, Professor Edward Passendorfer, who was already not too young at that time, came from Toruń along with a few colleagues who had been educated in that city to the Faculty of Geology, which was then being established at the University of Warsaw. Out of those colleagues, only Zbigniew Kotański and Wiesław Barczyk stayed at his Dynamic Geology Department for years. The Faculty had a lot of students, so a few assistant lecturers joined the Department shortly after, usually before they even graduated. One of them was Piotr Roniewicz, three years my senior, and I was in a group of students that was taught by him.

When I graduated a few years later, Professor Passendorfer took me into his Department too, and I practiced teaching classes with Piotr. We also led field trips together in the Sudetes for many years. We became a good team, and when Piotr met Wiktor Niedzicki, a radio journalist, we recorded *Ziemia jakiej nie znamy* (*The Earth We Don't Know*), a series of popular radio programmes which was then turned into a book. My friendship with Piotr was born out of those classes we had done together.

Piotr was sociable, energetic and enthusiastic to start many different initiatives. We did not restrict ourselves to our inner circle. Together with friends





First page from Professor Roniewicz's student index, 1953 (top). Sketch of the Śluchowice fold in the Holy Cross Mts., 12th July 1954; photograph of the field notebook of Piotr Roniewicz, first year field course in physical geology (bottom).

from other research institutions: Teresa Madeyska, Jerzy Niklewski, Maria Bac and Piotr's wife Ewa, we vacationed in Teresa's house on Lake Jasień in Pomerania and skied in Bukowina Tatrzańska.

However, we were mostly preoccupied by science. We practiced it on our team, known as the Academic School of Professor Passendorfer. However, we did not have a shared study focus or methodology. We dealt with distant subjects, even from different sub-disciplines of geology. What we had in common was an ambition to keep up with the world science, not an easy task at that time, as we were separated from the free world by the Iron Curtain, even if it was already rusty and full of holes.

For political reasons, the scope of our research had to be limited to Poland. For most of us, the scientific journey started in the Tatra Mountains, our Master's favourite area of focus. This is where our academic profiles began to take shape. This Tatra research peaked in the mid-1960s, when we completed our PhDs. Piotr took his doctorate in Lower Triassic





Academic staff of the Dynamic Geology Department at the Faculty of Geology, University of Warsaw, autumn 1967 (left photo). Standing from left: Andrzej Wierzbowski, Krzysztof Grzybowski, Piotr Roniewicz, Wojciech Jaroszewski, Jerzy Giżejewski, Zbigniew Kotański, Bernard Kojsar, Franciszek Budynek, Michał Szulczewski, Edward Passendorfer, Henryk Siech, Małgorzata Siemiątkowska-Giżejewska, Marek Brzezicki, Wiesław Barczyk, Jerzy Głazek, Krystyna Zawidzka, Andrzej Radwański, Stanisław Rudowski and Jan Kutek. Jerzy Giżejewski, Ewa Roniewicz and Piotr Roniewicz in Zgorzelec, 1967, during sedimentological research on the Muskau Bend (right photo) (*J. Giżejewski's archives*).

('Seisian') sedimentology of the Tatra Mountains, and as a result he was mostly interested in the sedimentology of clastic rocks.

Already then, our teaching duties attracted our attention to a different region of Poland. We were additionally responsible for field courses in the Holy Cross Mountains. We usually had dozens of students there, so the whole assistant team of the Department was engaged in teaching of student groups. For many years, Piotr was in charge of the courses, and I was the camp leader. The food and accommodation were really bad. We travelled by trucks, sitting on wooden benches.

In the poor conditions, we did many things to add some variety. On hot nights Piotr and I left Checiny to sleep on the nearby rocky hill of Góra Zelejowa. On one occasion, we accomplished the first crossing of the Zelejowa ridge in striped pyjamas.

Usually, under Piotr's leadership, we spent our afternoons and Sundays exploring the Holy Cross Mountains, to get a better understanding of their geology and find new places for student classes. We also looked for interesting geological problems to solve. Regionally-themed work focusing on the identification of the geological structures that prevailed in Poland at that time. We, on the other hand, searched for specific sedimentological phenomena, sometimes minor, but with general significance for the discipline as a whole.

In this way, some minor, narrow-in-scope papers were written about phenomena which were not recognised in Poland but aroused interest among Western sedimentologists. A duo of co-authors, Andrzej Radwański and Piotr Roniewicz, stood out in this hunt for compelling phenomena.

At that time, we were greatly influenced by 'Teddy Bear' Stanisław Dżułyński, the star of Polish geology, who came from the excellent Kraków School of Professor Książkiewicz. While our guru sneeringly described those minor papers as 'Warsaw's needlework', they made us recognisable in the world literature. Moreover, some of us found enough material here to support long years of research and habilitation theses, so we abandoned the Tatra Mountains and became permanently attached to the Holy Cross Mountains. This is how the second 'Holy Cross' stage of the Passendorfer School began.

It seemed that Piotr would also choose this path, as he was looking into the local Triassic Buntsandstein sandstone, but eventually he decided to concentrate on the sedimentology of the Tatra Eocene. However, he did not totally give up on the Holy Cross Mountains. Together with Andrzej Radwański, they found abundant and well-preserved Cambrian trilobite trace fossils which had just come into the spotlight in the international research community, so they researched them vigorously, with impressive results. Owing to their studies from the 1970s that were published in foreign compendia, they joined the world elite in this field. Their works additionally attracted foreign scientists to the geology of the Holy Cross Mountains. The visits by Peter Crimes, Jan Bergström and Adolf Seilacher marked the beginning of our close relation-



Piotr Roniewicz, Ewa Olempska and Jerzy Kraszewski during a scientific discussion in Piotr's office at the Faculty of Geology, University of Warsaw, late 1960s (*P. Roniewicz family archives*)

ship with Western academics, as we still were not allowed to go to the West.

The successes of Professor Passendorfer's students can be credited to his selection criteria and stringent requirements, but the atmosphere in our team also played a major role. We called ourselves the Magnificent Seven: Wojciech Jaroszewski, Jan Kutek, Andrzej Radwański, Piotr Roniewicz, Jerzy Głazek, Stanisław Rudowski and I, the youngest team member. So yes, we were quite fond of ourselves. It was more about ambitions than achievements, but in the end we all became professors.

We were colourful and unusual personalities, although some of us were sometimes difficult to get along with. We could be tough to deal with as individuals, also within the team, but when mixed together, we merged into a distinctive ensemble. With all the differences and dissimilarities, we were all friendly to one another and had a sense of togetherness. What made our teamwork smoother was tolerance and a sense of humour. With our fangs and horns entangled, together we were safe. Or, at least, safe to ourselves. We established the Monster Prize. Piotr and I bought a nightmarish figurine of a lion, the size of a pug, at a church fair. For a few years, we honoured Poland's worst Polish geological publication of the year with our Monster Prize. However, the Monster's role was merely symbolic, as it stood on Piotr's cabinet. Fortunately, we were not insolent enough to hand it over to the winners, or to tell any outsiders about the award.

Piotr was the soul of our bunch and invented most of our undertakings. He liked driving. At first he drove a Jawa, which was a Czech motorbike, and then he came up with the idea of buying a shared car for field research. Piotr, Andrzej, Jerzy Lefeld and I bought it together. Jerzy was one of Professor's first disciples, but he moved from the university to his lab at the Polish Academy of Sciences, and I took his place.

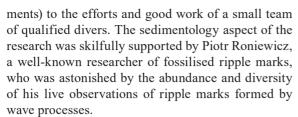
All we could afford was a banger, a barely functional Škoda ambulance, which must have outlived many of its passengers. We called it *Tetrecraterion yo*, for the ichnofossils that Piotr and Andrzej were then passionate about. It was formally owned by Andrzej who, despite being a man of many outstanding talents, had never managed to obtain a driving license, so sometimes we had to drive him around. Yo was very useful to me when I was working on my PhD, but it also offered me enough adventure to fill up a comedy film.

When most of us reached the habilitation stage, our Department became cramped, so we dispersed to different departments at the Faculty of Geology, and some of us even farther away. Only Andrzej Radwański and Piotr Roniewicz stayed in our homeland, the Dynamic Geology Department. However, we still had a lot of interaction and our friendship did not end there, but that's a different story.

DZIWNÓW 1962

Stanisław Rudowski Maritime Institute in Gdańsk, Gdańsk, Poland

It was the summer of 1962. In Dziwnów. A small team of junior employees from the Faculty of Geology of the University of Warsaw and fellow scuba divers started a pioneering direct sedimentological study of the seabed. After a few years of exploring the shallow bed solo (up to 3-5 m of depth), equipped only with fins, a mask and a snorkel, my dream of exploring the deeper sea floor at least up to 10 m, which meant past the surf break, was finally coming true. This required proper preparation. The equipment was excellent! We had a large dinghy for four persons (without engine), 4 closed-circuit breathing apparatuses (rescue type, retired from mines), thermal suits that we hand-glued using military outfits, chemical protective clothing (also retired), of course fins, masks, snorkels, and a little treasure - the Pentacon Six underwater camera (taking 6×6 cm photos) in a hand-made plastic housing. And a flash - which was a stick with six batteries and single-use magnesium bulbs. We owed all diving equipment and underwater work (the apparatus, training, safety measures and direct measure-



The results of the pioneering research was used as the basis for subsequent work which involved the methods and ways of measuring contemporary seabed forms, determining their origins and using them as specific indicators of seashore processes, status and development in a non-tidal sea. The most remarkable success of the Dziwnów'62 expedition was the first confirmed occurrence (at a depth of more than 7 m, some 500 m from the shore) of large, asymmetrical wave-formed ripple marks that ran into the sea and not towards the shore. This was an impulse to study the phenomenon of rip currents and the associated transport of sediments from the nearshore zone into the sea. The Dziwnów expedition marked the beginning of a series of further joint expeditions under the direction of Piotr Roniewicz, a research effort that was later successfully supported by Jerzy Giżejewski (in Lubiatowo, Rowy, Jastarnia, Bulgaria and Australia, to name just some of the places).

CLASTIC ROCK RESEARCHER

Jerzy Giżejewski Institute of Geophysics, Polish Academy of Science, Warsaw, Poland

While the 1960s can be called the 'golden era' of scientific achievements for the Dynamic Geology Department of the Faculty of Geology in Warsaw, the 1970s were undoubtedly marked by continued prosperity. In that period, the Department started to explore Quaternary clastic rocks. Gradually, together with the already ongoing research on epicratonic Jurassic formations in the Holy Cross Mountains and other areas, the two study directions replaced the Tatra studies for which Professor Passendorfer's school was renowned. Among those who dealt with clastic rocks, the lead was at first taken by Stanisław Rudowski, PhD, or simply Staszek for us, his peers. He was a meticulous researcher of sedimentation processes in clastic rocks in the nearshore zone of the Baltic Sea. Other people joined him later on: I explored the secrets of river sedimentation in the Vistula riverbed, Krzysztof Grzybowski dedicated himself to the sedimentary environment of kames, Tadek Merta specialised in

varved clays, and finally Darek Osijuk, who was an expert in Neogene inter-coal sands of the Muskau Bend in western Poland. Students from the intercollegiate marine geology programme of the Physical Oceanography Faculty at the University of Gdańsk and of the Faculty of Geology at the University of Warsaw were also involved in the research. An important role in this team was played by Piotr Roniewicz, who – owing to his publications – was already a renowned researcher in Poland and abroad, specialising in Triassic clastic formations of the Tatra Mountains. This way, the geographical range of the Department's studies of sedimentary clastic rocks spanned from the Tatra Mountains to the Baltic Sea.

At that time, Piotr Roniewicz began teaching a new subject, sedimentology, in a semester-long series of lectures and classes. The classes included a block of three hours where an ingenious 'sedimentation pool' was used. The pool was a masonry tank left from Professor Zbigniew Różycki's experiment on deglaciation carried out in the 1960s. In this tank, with the aid of clever devices designed and built by the team, river transport and wave shoaling processes were simulated for students.

Staszek Rudowski's network of contacts with academic teams from other countries of the former Soviet Bloc paved the way for our team dealing with clastic rocks to take part in a prestigious research programme on nearshore zones of non-tidal seas coordinated by the Academy of Sciences of the Union of Soviet Socialist Republics. The first scientific expedition under this project was organised in 1973 in Zingst, in our 'fraternal' - as we used to say – German Democratic Republic; the second one took place in Poland. Both were devoted to the physical processes of atmosphere-sea interaction. Our team did not join them until the third expedition in 1976. Its main organiser was the Institute of Hydro-Engineering of the Polish Academy of Sciences (IBW PAN). The study was carried out at an IBW coastal station in Lubiatowo, hence the name of the expedition: 'Lubiatowo 1976'. That was when our sedimentology team from the Faculty of Geology of the University of Warsaw came into formal existence. We were a group of 14 people. Our team leader was Piotr Roniewicz. A year before, thanks to his efforts, we managed to obtain diving equipment, including a compressor and a diving dress, and we employed our own creativity to adapt cameras to document sedimentary structures under water. Piotr made every effort to establish good cooperation with all groups of sedimentologists, starting from Lithuanians who represented a similar approach to the solving of sedimentary problems, to Russian oceanographers from faraway Siberia, a team of Polish engineers and marine physicists from the IBW and geologists from a research vessel of the Maritime Institute in Gdańsk and meteorologists from the Institute of Meteorology and Water Management in Warsaw. Programme discussions took place mainly between the team leaders. Piotr took an active part in them. The expedition lasted from August to early October. Towards the end of the period, the working conditions deteriorated, but the observations became more and more interesting. It was clear that a conference would be held to summarise the outcomes of the research project and that a collection of papers would be published.

'Lubiatowo 1976' was the third expedition organised as part of the project. We were thrilled by the prospect of further exploration of the nearshore zone of non-tidal seas. Unfortunately, this has never happened. For economic reasons, we did not take part in the subsequent fourth expedition organised by Bulgarians in 1978 in Kamchia by the Black Sea.

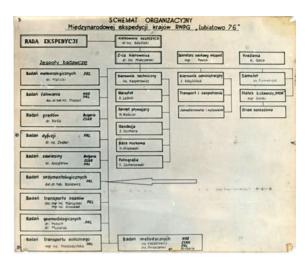
In his uniformitarian research carried out in the following years, Piotr refocused on the Tasman Sea region. He successfully conducted research in this area until the end of the 1970s. But that's a different story.

PROFESSOR PIOTR RONIEWICZ: TEACHER AND FRIEND

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When it comes to writing a tribute, we recall images from the past to weave a cohesive narrative – from the last meeting to the first one: how did it all start? In my case, this is all the more important because I was a Master student and PhD student of Professor Piotr Roniewicz. During my third year of studies (1973/74) at the Faculty of Geology of the University of Warsaw, I took an interest in the sedimentology of clastic rocks.

I remember that there was already a research team led by Professor Roniewicz, which studied contemporary and fossil river, eolian and littoral sedimentary environments. Aside from the Professor, the team included Stanisław Rudowski, Jerzy Giżejewski, Grzegorz Czapowski, Waldemar Roszczynko and Jerzy Zrobek. I was very impressed by their research expeditions to the Baltic shore, and by how they impregnated cores of sedimentary structures from contemporary river or beach sediments using epoxy resin. That period was also marked by intensive explora-



Organizational chart of the Lubiatowo'76 expedition. The arrow points to Piotr Roniewicz, responsible for sedimentological research (*J. Giżejewski's archives*).

tion of hydrocarbon deposits by the oil industry in the Permian clastic formations of the Rotliegend in the Fore-Sudetic Monocline. In this area, Professor Roniewicz and his team carried out a number of specialist sedimentological studies of drill cores.

When choosing the subject for my Master's thesis, I decided to use core material from the Rotliegend formations of the Śrem region (in Greater Poland). Professor Roniewicz not only agreed to be my supervisor, but also was willing to let me work with his team, which was a great advantage for me as far as learning was concerned. My cooperation with Professor was so successful that he also became the supervisor of my PhD thesis, which covered not only a much larger range of Rotliegend formations in Greater Poland, but also had a research scope that was way more extensive than that of my Master's thesis. I defended my PhD thesis in 1983 and that is when our intensive cooperation ended. But we stayed in touch and often met on academic grounds.

When I recall that time today, I can see how much I benefited from the experience of Professor Roniewicz. First of all, he set up a sedimentology research team and led it for many years. We enjoyed a great atmosphere, especially during field trips to the Baltic Sea or to drill core storages. And then there were the discussions, which sometimes lasted for hours. The professor knew how to listen to people. I saw how important this skill was later on, when I realised that we learn and develop the most when we are given the opportunity to express and discuss our views. The freedom of academic contacts inspired

new ideas and new solutions. Professor Roniewicz deserves real credit for that, because today I know that knowledge and diligence alone are not enough to develop in science. You need a friend at work who inspires you, but is also critical of your efforts. This trait of Professor Roniewicz was always welcome by the geological community.

In 2008, during the First Polish Geological Congress in Krakow, Professor was awarded with honorary membership of the Polish Geological Society. I witnessed that. I saw how overjoyed the Congress participants were when Professor Roniewicz was honoured, but I also noticed that Professor Roniewicz was moved and happy. Just as it is difficult for children to give thanks back to their parents, it was difficult for us to show our gratitude to the Professor. Maybe in some way we pay back by means of our professional and scientific activity and by teaching our successors. In this relay of generations, this cyclical chain of events, it is good to have such personalities as Professor Roniewicz, who shaped a huge part of my professional and academic life. I tell my students about his attitude and although they have not had a chance to meet him in person, they know how much the way things develop in life depends on the people you come across. I was lucky to meet Professor Roniewicz, to cooperate with him and learn from him.

DEAN, COLLEAGUE AND FRIEND

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I got to know Piotr better back in the 1970s. By that time I had already been working at the Faculty of Geology. Our more than forty years long acquaintance with Piotr was a series of interactions between us as friends and professionals across various organisational setups at the university: when Piotr was the Dean and I was the Vice Dean at the Faculty, when I became the Dean and he was the Head of the Dynamic Geology Department, or when we both sat on the Scientific Board of the University Centre for Environmental Studies (nowadays -University Centre for Sustainable Development and Environmental Studies) (UCBS) and the Inter-Faculty Studies in Environmental Protection (MSOS), chaired by Piotr. Piotr was also the Chairman of the Board of the Society of Friends of the University of Warsaw and of the Faculty of Geology Alumni Society, where we saw each other at annual meetings. These professional contacts were consistently inter-



Piotr Roniewicz, Ewa Kantowicz, Andrzej Wierzbowski and Gerard Sawicki during the filming of the series on the geology of the Tatra Mountains, mid-1990s (G. Sawicki's archives).

woven and consolidated during informal meetings in my university room at the Faculty of Geology in the Institute of Hydrogeology and Engineering Geology. Sipping our coffee, we talked through the challenges and decisions in our responsibility, matters important for the position of geology at the university level and beyond, as well as trivial daily business. We chatted about our professional plans, but also the books we read, travelling and other engaging things. Piotr was broad-minded and had many different interests. Years later, the details of our conversations have become blurred in my mind, but what remains is a reminiscence of a great gift of friendship and Piotr's willingness to freely discuss any topic, even a challenging one, which is less and less common nowadays.

In discussions on geology, Piotr was extremely loyal to his immediate scientific environment and defended it in all respects. When, as a representative of applied geological sciences, I complained how much 'traditional' geology was detached from geological practice, Piotr persistently pointed to the global importance of geological publications outside applied sciences. Many years later, it seems to me that the environment he defended so fiercely did not always fully understand and reciprocate his loyalty. Perhaps this was due to Piotr's extensive organisational activity, his openness to new events and active involvement in their design, often underestimated at the stage of exhausting arrangements and formalisation of objectives, before the useful purpose of the plans became clear and could bring measurable benefits to the Faculty's community.

Piotr was passionate about his geological programmes on Polish Radio. This latter sphere of his activity widely promoted geology, driving up university enrolment and improving the understanding and recognition of the importance of this field of knowledge in the competitive world of other scientific disciplines. In that distant period, when the scope of competence of 'Environmental Protection' was still rather narrowly understood, Piotr made an invaluable contribution to the promotion of knowledge about environmental protection and its role in teaching. For instance, he played a major role in the creation of the foundations for the UCBS and the MSOS.

Piotr's fame as a geology lecturer reached beyond the Faculty of Geology. I know from stories told by his former students at the Faculty of Geography and Regional Studies that they considered him to be an excellent, engaging lecturer, inspiring people to broaden their geological knowledge, and discussions with him often ended with informal group meetings near the University of Warsaw, in the area of Krakowskie Przedmieście or Oboźna streets.

Piotr had this extremely valuable skill of alleviating conflicts and frictions. He sensed with great intuition how to stay calm and take the right action later. The Faculty of Geology owes him a lot in this respect. The Faculty and university life were Piotr's second home. He came to the Faculty of Geology as long as he was able to and then he suddenly stopped. I still think he is going to knock on the door and ask: *How are you, could I have a coffee?*

SCIENCE AND POLITICS

Grzegorz Pieńkowski Polish Geological Institute– National Research Institute, Warsaw, Poland

Professor Piotr Roniewicz's obituaries never capture the full spirit of the person. Certainly, it is difficult to reflect Piotr's life and achievements in the form of one page of text. A well-known scientist, he was also a talented writer and populariser, who opened the fascinating history of geology to a wide audience. Piotr was thoroughly interested in many fields, not only geology. His passions included music, nature and social observations — to name just a few. I was privileged to be one of his MSc students and later PhD students. What I valued the most was his open attitude to my own, even immature scientific concepts. Being himself an open minded person, he was not afraid to assign to his students demanding

tasks exceeding, for example, the scope of an ordinary MSc thesis. When the opportunity to completely change the terrain and the specifics of my doctoral dissertation appeared, he did not hesitate to set me new tasks and convince me to undertake them, although others avoided them. No wonder, he was himself one of pioneers of Polish sedimentology and he knew very well what such challenge was about. However, he would never leave me alone – having extensive contacts in Poland and abroad, he shared them with me, recommending a beginner geologist to such famous scientists as Marian Książkiewicz, Stanisław Dżułyński and Władysław Karaszewski. I owe him also my first contacts with Swedish geologists, which later proved to be so fruitful.

The Communist times in which the University and all science in Poland functioned then were not easy. Piotr was a realist and positivist; he assumed that undertaking big challenges in knowledge, and more moderate in political and interpersonal relations would pay off in the future – and this was also my case, as I could not become a university researcher for political reasons. Indeed, he was careful in assessing others, and often warned that it was only time to verify such assessments. I think he was generally warm and forgiving to other people, even if he did not fully agree with them. Maybe that is why he saw the strengths of others quite accurately. He felt that a modest and quiet associate professor Władysław Karaszewski was correct in trying to convince him and many others to undertake sedimentological research on the Lower Jurassic series of Poland. Władysław Karaszewski was just retiring then and he was happy to find someone who would continue his work. However, this happened thanks to Piotr's mediation.

Finally, I would like to share my own experience outside of science. I had to defend my doctoral dissertation on the first business day of martial law in Poland, on Monday, December 14, 1981. That same day, being an activist of "Solidarity", I led a protest strike against martial law at my home Institute. After the successful defence of my doctorate at the Faculty of Geology of the University of Warsaw, I remember that Piotr approached me and offered shelter in his apartment, because I was a wanted person. I already had a hideout, but I appreciated this gesture of sheer solidarity very much.

When we met for the last time in 2016 on Piotr's last field trip, I had the great pleasure of taking Piotr to our former outcrops, remembering the old days and enjoying the change in Poland since those times. Piotr, rest in peace – I shall remember you with gratitude.

A TRAVELLER, ALWAYS 'LOOKING ON THE BRIGHT SIDE OF LIFE'!

Stanisław Skompski Faculty of Geology, University of Warsaw, Warsaw, Poland)

The beginnings of my relationship with Piotr were quite stressful. He led a geology course in the Holy Cross Mountains, and I was a freshman who 'sinned', breaking curfew on the very first night. I got away with it, and things only got better after that. Piotr enjoyed a lot of respect from students. He often visited groups in the field and questioned students about what they had observed. We were surprised how much information about the sedimentary environment and geological history could be deduced from trivial details such as the position of fossils, stratification type or presence of calcite veins. The field meetings with the course leader, as unnerving as they were for students, were still very important teaching-wise. Today, almost 50 years later, I am able to repeat all the questions that Piotr asked me near a low hill in Gałęzice, called Todowa Grzaba. And his way of conducting fieldwork was a model I tried to follow.

Later on, when we worked together at the Institute of Basic Geology, our academic paths ran in parallel, to some extent. I dealt with carbonate rocks, and Piotr dealt with clastic rocks. The thing is that the two sedimentological specialties very rarely overlap, in fact we say that there is a schism between carbonate and clastic sedimentologists. We were united by Carboniferous cyclothems that I worked on around the time of writing my PhD thesis. These formations contain both types of rocks. Perhaps because of this Piotr became an almost 'full-time' reviewer of my papers, and he was certainly the most diligent reader. I really appreciate this period, because with Piotr's comments I managed to avoid at least a few setbacks.

In later years, Piotr tried to infect me with his love for the Tatra Mountains. At some point, we climbed up together to a group of vertical rock exposures to the east of the Giewont peak to take samples of limestone and dolomitic rocks, hoping that they would tell us more about the nature of Triassic sedimentary cycles. The trip was pleasant and informative and there would be nothing unusual about it if it had not been for the fact that Piotr had suffered a heart attack a few months before. I had never been so concerned about a few hours of marching to the Giewont peak in my whole life. But it all ended well, and I think Piotr wanted to test his fitness level. Unfortunately, the samples did not contribute anything new to the understanding of the Tatra Mountains, and the inces-

sant rains discouraged me from learning about the geology of this beautiful part of the Carpathians.

There were more geological excursions with Piotr, not only to the Tatra Mountains, but also to the Alps, Ukraine and the Holy Cross Mountains. He was an excellent travel companion. He never complained, he was never discouraged, tired or hungry, he was the good-spirited one on the team and he found the right words to encourage us to do more. And this image of a cheerful wanderer, an eternal optimist, will remain forever in my memory.



Field-course "Present-day processes in the Baltic coastal zone and their fossil record", Łeba 2005 (A. Wysocka's archives).

'A LIGHTNESS OF BEING' WHEN TALKING WITH PIOTR

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When we start writing memories of someone we met, we always ask ourselves what is most important in them. A memory of Professor Roniewicz, for me Piotr, also raises such a question. Piotr was a great scientist and academic teacher, but he was also a great man. And this last aspect accompanies my reminiscences most strongly.

Of course my memories start with his lectures when I was student. The lectures I attended were about "Dynamic Geology", about processes responsible for all changes in all Earth's spheres. These lectures were very communicative. Very substantive, but easy to comprehend. The general impression was that if someone can convey this knowledge in such a way, then he should do the classes with students. The lectures ended with an exam and afterwards our contacts stopped. I chose petrology, mineralogy and geo-



Staff of the geological field course in the Holy Cross Mountains for the Inter-Faculty Studies in Environmental Protection (MSOŚ), Bocheniec'2006. Standing from left: Janina Chatys (head of the field station of the Faculty of Geology, University of Warsaw, in Bocheniec), Piotr Roniewicz, Ewa Głowniak, Marzena Szostakiewicz-Hołownia, Tomasz Segit (E. Głowniak's archives).

chemistry as the main subject of my interest. At the very beginning it was sedimentary petrology related to dynamic processes occurring within coastal areas (my MSc thesis), but still I did not consult my research work with Piotr, who was sedimentologist. I prepared my PhD about volcanic/subvolcanic processes, very distant from sedimentary petrology. The research was done in cooperation with German scientists, the dissertation was written in English. Piotr, as a dean, formally led the PhD degree procedure. It was a very kind, but official contact. The Academy of Humanities in Pułtusk reencountered us again. I was responsible for the lectures in geochemistry. Many times we went there together by car. Quite a long distance and a lot of time to chat. Most of the time we spend chatting about many subjects, mostly non-geological ones. A great opportunity to get to know someone from a more private side. So we chatted about life, the sense of being and not being, also about the 'lightness of being', about death, about the concept of potential return, about history – different periods and societies living during these periods, about the Polish society in particular and many, many others. His point of view on most of them was very interesting for me. There was a difference in age and experience between us. Piotr was able to present his arguments in an engaging way, but he was also a careful listener. A rare feature at a time when each of us prefers to listen to ourselves. His reflections were marked by maturity, sometimes by a great sense of humour. Apart from serious and philosophical-historical topics, there were also lots

of jokes and light topics. So the joint trips to give lectures were never boring. Another feature of Piotr was his readiness to find delicacies of local cuisines. He was a foodie. He knew all the great places we passed on the way to Pułtusk. He could say "Easter is coming", time to visit such and such a small restaurant (inn) because there was a great 'pascha' (sweet dessert given during Easter), or potato sausage, or potato baba. Great moments.

Life is short and every wonderful moment given to us by wonderful people enriches us. I gained a lot of 'enrichment' from Piotr and I am very grateful to him for that. I will remember him as somebody with a readiness to look at life in a serious but at the same time a light way with a distance and a sense of "ease of being".

CO-FOUNDER OF THE UNIVERSITY CENTRE FOR ENVIRONMENTAL STUDIES

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Few academics shared the gift of Professor Piotr Roniewicz, who was able to look at the world from a broad perspective of various interrelations. His perceptions turned into a vision of a university institution integrating various fields of knowledge and bold action taken to establish an interdisciplinary interfaculty unit at the University of Warsaw in 1989 – the University Centre for Environmental Studies (UCBS).

As one of the four deans of the founding faculties, he was a member of the UCBS Scientific Board from the very beginning and then its Chairman until 2017, as long as the institution existed in its original shape. This honourable function did not come down to a smooth and dignified conduct of proceedings or using diplomacy to reconcile the interests of different faculties. From the very beginning, Professor Roniewicz was directly involved, in a father-like manner, in the daily activities of the unit he had co-established. He offered inspiration and project patronage without avoiding creative criticism, encouraged scientific development, but also cheerfully participated in social meetings and team-building celebrations. Briefly speaking, he bestowed a truly warm and wise friendship on UCBS and his Team. Few people at the university understood and supported the mission of UCBS as much as he did, and he was of the opinion that the beneficiaries and place of the mission should extend beyond the university



itself. He saw the scientist's obligation and joy of injecting this knowledge into the social bloodstream as an intrinsic part of practicing the 'great science'. UCBS could always rely on his contribution to such activities. It was known that he would join in, adding brilliant substance and charm. This is what he always did, for instance when he opened UCBS exhibitions, scientific conferences or workshops for teachers.

He believed that the development of teachers' competences was as important as student classes, and he personally participated in the preparation of contemporary teaching materials. He also paved the way for the popularisation of science, which did not enjoy too much respect in the academic community. With his authority and talent for communicating with his audience, he raised the profile of teaching tools such as films or essays in line with the social responsibility of the university. His numerous achievements in this field include an outstanding pioneering school textbook Zielong ścieżką (Taking the Green *Path*), which brought interdisciplinary environmental teaching into Polish schools. The textbook and the teacher's guide were written by a Polish and English team, to which, apart from the content, the Professor contributed his straightforward manner and sense of humour. Needless to say, none of the other participants could match the Professor's pace in the testing of field activities.

A remarkable example of his approach to the popularisation of science is that he took part in a bold challenge when the UCBS team undertook to create a guide to a poetic and epic documentary about bird migration, Winged Migration by Jacques Perrin. The goal of the film was to show the migrations of birds as a pretext for school teaching integrating various fields of knowledge. Hence the Polish title, which translates as Birds beyond boundaries. With such a task to do, it is not that hard to picture a biologist talking about bird migrations, an engineer explaining flight mechanics or a geographer drawing flight routes. But a geologist? Is there a link between ornithology and a representative of a down-to-earth discipline that is so distant from the skies? But the Professor immediately found his niche and proposed an essay entitled From the natural history of flying over landscapes. "One of the greatest achievements owed to mastering the art of flying is the ability to see the Earth's surface from above, not without reason commonly called a bird's eye view. The images of the Earth's surface accompanying bird migrations in Jacques Perrin's film are extremely vivid and detailed, as they are seen from the height of a bird's flight. This is an excellent opportunity to draw attention to landscape features

shown from a variety of angles, and after all the main outline of the Earth's landscapes has been shaped by long-lasting geological processes taking place on a geological time scale."

I have the impression that today Piotr himself is looking at science, education and academic institutions from a bird's eye view and supports from afar those activities that interpret the world from this perspective, and not only from the confines of a narrow discipline.

ABOUT NOT BECOMING A SCHOOL TEACHER AND A RESEARCHER OF CRETACEOUS SAND DEPOSITS OF THE POLISH LOWLAND

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Piotr was my teacher of sedimentology during my studies at the Faculty of Geology, University of Warsaw. Thanks to his open approach to geological studies I was able to present my MSc studies as an individual course, somewhere between sedimentology, Quaternary geology and biology. Under his, and Dr. Jerzy Giżejewski's, friendly care and supervision I worked on an interdisciplinary MSc thesis - Late Holocene and recent sediments of the Garbas Lake and the geological setting of its vicinities. After I graduated I applied to a primary school as a geography teacher. However, I never became one! Just three days before the beginning of the school year, Piotr called me with the proposal to enrol as a technician at the Faculty. So, I decided to change my plans and have worked at the Faculty ever since, for more than 25 years now.

Another turning point in my scientific career influenced by Piotr was searching for a topic for my doctorate. Among many other ideas, the study of Cretaceous deposits in the Tomaszów Mazowiecki region was taken into consideration. One hot summer Sunday morning, during a basic geology course in Bocheniec in the Holy Cross Mountains, where I was leading a student group for the first time, Piotr decided to take me to some preliminary field investigations in that area. Unfortunately, I was not expecting this at all and spent the previous night in a way typical for such geological courses. Not going to sleep at all. Well, it was difficult for me to say no to such idea, so I went bravely with Piotr. The weather was typical summer, hot and sunny, with no cloud in the sky. And around me, literally everywhere, were white, highly reflective quartz sands. Very soon Piotr realised that on that day even the most beautiful sedimentary structures would not gain my interest at all. As an excellent observer and experienced geologist, Piotr suggested to withdraw from the quarry and simply go to the swimming pool in Spała! What a relief, we spent the rest of the day at the pool. And the idea of my doctorate focusing on the sedimentology of Cretaceous quartz sands never came back. However, this event was an excellent step to my actual doctoral dissertation "Sedimentation of clastic Badenian deposits in the eastern part of Roztocze, between Zwierzyniec and Lviv" which, of course, was supervised by Piotr Roniewicz.

ABOUT SCIENCE – SIMPLY, INTERESTINGLY AND WITH PASSION

Gerard Sawicki screenwriter and producer, TVP, Warsaw, Poland

I met Piotr for the first time when, as a freshman at the Faculty of Geography and Regional Studies of the University of Warsaw, I showed up at his lecture on dynamic geology. I still remember how impressed I was by him. He was an academic teacher endowed with extraordinary charisma. He had the gift of attracting attention to his story and an outstanding skill of presenting complex scientific issues in such a manner that people had the impression of exploring an exciting mystery. During the following years of my studies, I often gratefully recalled the fantastic moments of discovering the extraordinary world of geology with Piotr. I had no idea at that time that our acquaintance would go on.

After graduation and a brief episode in a cartometric lab, I became a journalist for Polish television, where my job was to popularise broadly defined nature. One day, in the early 1990s, my boss Zosia Żukowska summoned me and told me with excitement that she heard two geology professors on the radio who talked about difficult problems of their discipline with zest and in a very comprehensible manner. Zosia decided that it would be great if we could get them on our editorial team. I asked if she remembered their names and I heard: Piotr Roniewicz and Andrzej Wierzbowski. Zosia, I said, I had lectures with Professor Roniewicz, and dynamic geology classes with Professor Wierzbowski. This is how our long-term cooperation began, resulting in two popular science shows that bordered on sightseeing and geology: Taki pejzaż (Such a Landscape) and Przez Karpaty (Across the Carpathians).

In this way, from behind the lens, I witnessed geology lessons taught to the audience by the two great scientists for several years. I admired their gift of talking about science in a straightforward, compelling and passionate manner. We travelled across Poland and beyond together, climbing the highest mountains and going more than a kilometre underground into the deepest coal mines. We explored the calm Emerald Lake on the Wolin Island and the rough waters of the Váh River. Piotr never lost his sense of humour, charm and professionalism, whether he was talking to the camera standing on the edge of a ledge of Collegium Gostomianum in Sandomierz or in a dinghy rocked by the waves of the Váh among tree trunks carried by flood. The recordings of these programmes could still be used for geology lessons in schools today, thanks to the fact that some people have recorded our programmes on digital media. I wish the Public Television had done that.

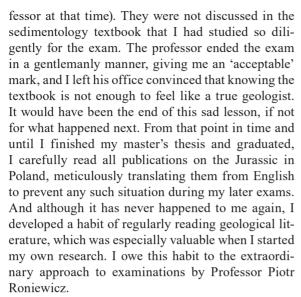
Piotr, thank you on behalf of the audience and myself for all those wonderful stories and for the knowledge you shared, I am very grateful for the adventure of my life.

EDUCATOR, ORGANISER, PRINCIPAL AND COLLEAGUE

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Back in my university days, Professor Piotr Roniewicz was a lecturer of sedimentology. Later, when I took up a job at the Faculty of Geology, for some time he led the Dynamic Geology Department and was my direct superior. But above all, he was a good colleague, whose experience and geological knowledge we could always rely on.

My early recollection of him dates back to my sedimentology exam. We had to pass it during the third year of studies. We had just selected our thesis subjects, but we had not started our first independent fieldwork yet. I went to this exam well prepared, or so I thought. Meanwhile, after two relatively easy questions from the sedimentology textbook, Professor Roniewicz unexpectedly changed the concept of his inquiry. Having learnt that I was going to write my thesis on Jurassic carbonates, he asked me to give examples of sediment gravity flow deposits described in the area of the Polish Jurassic Upland. I must admit that I was not yet familiar with the results of Ryszard Marcinowski's thesis on this subject published in 1970 (and he was already a doctor and assistant pro-



Two years later, when I became an assistant lecturer at the Dynamic Geology Department, I quickly found out that Professor Piotr Roniewicz was an open and friendly person in professional settings. He did not distance himself from younger academics; he did not let us feel the difference between us in both age and scientific position. This fostered a good atmosphere in our teaching activities and was particularly helpful when we delivered field courses, which called for a strong team spirit. He knew how to build a good team. I have fond memories of the field courses with his participation.

Professor Roniewicz, or simply Piotr for all of us across the Department, made sure as the Department Head that all assistant lecturers carried out a variety of teaching activities. I remember that he reminded us – who had master's degrees at that time – that it was about time to plan the elective lectures that we would later give as doctors. As a prelude to our independent scientific future, he would give us a wide range of non-routine assignments, often without prior notice. One day he opened the door to my room and announced in passing that he had just made an appointment with Ms Dorota Truszczak, a journalist running scientific programmes on the Polish Radio, to record a programme. I did not even have the time to shake off the surprise when he added that I had to choose the topic myself and that it had to be something interesting and in simple language. It took me a lot of time to figure out what could be interesting for the audience before I decided to tell about the phenomena of fossilisation processes, the most interesting topic for me back then. The story itself was woven around human remains found in a melted glacier in Similaun in the Ötztal Alps, which received massive press coverage at

that time. No need to mention that in order to prepare for this broadcast, I had to significantly broaden my assistant lecturer's knowledge and do some serious reading. This first popular science programme in my life was recorded and broadcasted, and I still remember the impression of listening to my own voice on the radio and, of course, I associate it with Professor Roniewicz. And so, in some part randomly and in some part according to a plan, he prepared us to formulate topics on our own, and to prepare our own lectures in the future. He was a great speaker himself and talked about geology in a compelling manner, not only when he was giving lectures to students. In a series of popular science films whose screenplays were born before my very eyes in the premises of the Dynamic Geology Department, the two erudites Piotr Roniewicz and Andrzej Wierzbowski were probably the most popular duo in the millennial "geology show" of the 1990s and early 2000s. This was a firstrate promotion of geology.

The organisational flair of Professor Piotr Roniewicz and the ease with which he undertook new scientific and teaching activities were nothing less than extraordinary. This included the organisation of lectures by invitees through the Society of Friends of the University of Warsaw, the aforementioned recordings of popular science programmes on geology, and finally, the most important sphere of his activities: innovative tertiary teaching initiatives. As regards the latter, he played a key role as the co-founder (together with several other Faculty of Geology employees) of the Inter-Faculty Studies in Environmental Protection (MSOS) at the University of Warsaw a cross-disciplinary course established in 1989 and allied to the University Centre for Environmental Studies (UCBS). Professor Roniewicz was the Chairman of the Scientific Board of the Centre (today the University Centre for Environmental Studies and Sustainable Development) for 25 years, until December 2017. He led or co-led various teaching activities for the MSOS, including field courses. On the initiative of Professor Roniewicz and Professor Andrzej Wierzbowski (who was also partly involved in this field of study), a large part of the junior academic staff of the Dynamic Geology Department, including myself, were involved in teaching for the MSOS from the very beginning. This inter-faculty branch of studies, following some transformation, continues to exist, and the students of the MSOS are still taught general geology and sedimentology fundamentals at our Department.

Professor Roniewicz's teaching style had one more noteworthy characteristic feature. He engaged

the best 5th year students as volunteers in classes for students, which was not a common practice at that time. For us, assistant lecturers and then assistant professors, it was a great help when we worked with student groups, which were very large in the 1990s and 2000s. Some of those invitees have turned into doctors, whose names are well-known to the academic community today. This way of recruiting young talents for academic work was a continuation of the lessons learnt from Professor Edward Passendorfer – the first Head of the Dynamic Geology Department at the Faculty of Geology of the

University of Warsaw and a role model for the generation of young geologists of the 1950s and early 1960s, many of whom, including Piotr Roniewicz, later became professors. Professor Roniewicz often mentioned his teacher and told us stories about the two of them working together. In this way, he inadvertently passed on to us the knowledge about the history and tradition of the Dynamic Geology Department, whose classrooms had seen all postwar generations of graduates from the Faculty of Geology of the University of Warsaw. Professor Piotr Roniewicz co-authored this tradition.

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