



Geographia Polonica
Volume 87, Issue 3, pp. 441-469
<http://dx.doi.org/10.7163/GPol.2014.30>



INSTITUTE OF GEOGRAPHY AND SPATIAL ORGANIZATION
POLISH ACADEMY OF SCIENCES
www.igipz.pan.pl

www.geographiapolonica.pl

50th
ANNIVERSARY
1964-2014

POLISH GEOGRAPHY: DOES THE PAST HAVE A FUTURE? AN INTERVIEW WITH PROFESSOR LESZEK STARKEL

Leszek Starkel¹ • Jacek Wolski²

Institute of Geography and Spatial Organization
Polish Academy of Sciences

¹ Św. Jana 22, 31-018 Krakow: Poland

² Twarda 51/55, 00-818 Warsaw: Poland

e-mails: starkel@zg.pan.krakow.pl • j.wolski@twarda.pan.pl

To mark the 50th anniversary of the *Geographia Polonica* journal, we are publishing an interview with Professor Leszek Starkel. Professor Starkel (b. 1931) is one of the most distinguished Polish geographers, geomorphologists, palaeohydrologists and Quaternary researchers. Associated throughout his professional career (since 1953) with the Institute of Geography and Spatial Organization, Polish Academy of Sciences (Head of the Department of Geomorphology and Hydrology of Mountains and Uplands in Krakow, 1968-2001; co-founder and Head of the Research Station in Szymbark, 1965-1975). Organiser of and participant in many scientific expeditions (to India, Mongolia and the Balkan countries). Active participant in many international and national scholarly organisations, including the Geomorphologic Carpathian-Balkan Commission (Secretary in 1963-1975), the INQUA Commission on the

Holocene, Euro-Siberian Subcommission (President in 1973-1982), the INQUA National Committee (Chair in 1977-2003), the INQUA



Figure 1. L. Starkel planting a "memorial tree" on the Ambootia Tea Estate, at the edge of the great landslide formed following the catastrophic rain in the Darjeeling Himalaya (24 February 2003).

Global Continental Palaeohydrology Commission (President and Deputy President in 1991-2003), the Quaternary Research Committee PAS (Chair in 1977-1993), the IGBP Global Change National Committee (Chair in 1989-1998, currently Deputy Chair), the Humans and the Environment Committee PAS (Deputy Chair in 1993-2003), the Krakow Branch PAS (Deputy Head in 1999-2002). Leader of the UNESCO IGCP-158 project entitled Palaeohydrological changes in the temperate zone in the last 15,000 years (1978-1988). Overseas member of the Royal Physiographic Society in Lund (1985), Academia Europaea (1992), Honorary Member of the Hungarian (1993) and Slovak (1999) Geographical Societies, INQUA (1999), International Association of Geomorphologists (2005), Fellow of British Society of Geomorphologists (2014). Member of the Polish Academy of Sciences (corresponding 1983, full 1997) and active member of the Polish Academy of Arts and Sciences (1990). One of two Poles in history to have received the prestigious Gold Founder's Medal from the Royal Geographical Society (2004).

– **JACEK WOLSKI:** Professor, we are meeting at a rather special moment. Last year we celebrated the 60th anniversary of the beginning of your professional career and the 60th anniversary of the Institute of Geography and Spatial Organization of the Polish Academy of Sciences, with which you have been associated from the very beginning. This year we have the 50th anniversary of the *Geographia Polonica* journal and in August the International Geographical Union Regional Conference in Krakow, the topics of which – *Changes, Challenges, Responsibility* – could, in fact, be the leading themes of our conversation. However, in order to stick to chronology, let us go back to the mid-20th century. In your autobiographical memoirs¹ we find the image of a man who gradually, from his earliest childhood,

¹ STARKEL L., 1999. *Moje spotkania z Karpatami*. Kraków: Wydawnictwo Oddziału PAN w Krakowie; STARKEL L., 2011. *Spotkania na drodze*. Warszawa: Szkoła Wyższa Przymierza Rodzin (this and following footnotes were prepared by J. Wolski – Ed.).

was getting ready to 'be' a geographer. Were copying outlines of maps in atlases and your passion for stamps the small steps that made six-year-old Leszek interested in the world and led him after secondary school to the Institute of Geography of the Jagiellonian University?

LESZEK STARKEL: Indeed, plagiarising Romer's² *Mały Atlas Geograficzny* (Small Geographical Atlas) marked the beginning of my interest in geography. Later, during the war, I borrowed his *Geograficzno-statystyczny Atlas Polski* (Geographical-Statistical Atlas of Poland) from the headmaster of my school. I returned it three years later, literally in shreds, because I had followed all the military operations in Russia, Africa or Japan on maps. Stamp collecting? When I was five, I decided I would start collecting stamps. First, I began to check my father's mail – my father still had collections from Austrian times – then I went to my grandparents; someone had relatives in the United States, a Jewish catechist of my acquaintance had stamps from Palestine... My collection grew as did my interest in distant lands. At the same time I was passionate about history. However, this was the beginning of communist propaganda. My father was linked to clandestine classes during the war and the Home Army, and I, with my views, could not imagine learning Marxist history for years. So this is how I became a geographer. Although I had serious health problems at the time and sat the university entrance exams almost on leave from the hospital, my passion proved to be stronger than my ailing body.

– This passion made you an extremely active student almost from the very beginning.

² EUGENIUSZ ROMER (1871-1954) – one of the finest Polish geographers and cartographers; creator of the Polish and European school of cartography, author of over 250 cartographic works, including the famous *Geographical-Statistical Atlas of Poland* (1916), founder of *Polski Przegląd Kartograficzny* (Polish Cartographic Review), co-founder of *Książnica Atlas* (1921); head of the Institute of Geography of the Jan Kazimierz University in Lviv (1903-1931), Institute of Cartography at the same university (1921-1939) and Institute of Geography of the Jagiellonian University (1945); Vice-president of the IGU (1928-1938, 1945-1954). More: PRZYŁUSKA B., KOLEK Z., 2004. *Eugeniusz Romer – geograf i kartograf trzech epok*. Warszawa: Biblioteka Narodowa.

– That’s right. Already in my early days at the university I began to attend additional meetings of the geomorphological laboratory organised by Prof. Mieczysław Klimaszewski³, who in 1949 came to Krakow from Wrocław. These were the beginnings of a great campaign of geomorphological mapping. At the same time, like many other people, I was fascinated by lectures given by Prof. Marian Książkiewicz⁴. His influence was so overwhelming that I seriously considered moving to geology, as five students from my year did. I stayed, but after finishing the compulsory classes and lectures, I attended Prof. Książkiewicz’s seminars till the end of my studies, fascinated by the way in which he was able, using just chalk, to conjure up geological sections of the Tatra Mountains on the blackboard. In addition, I began to attend palaeontology classes. I also regularly took part in meetings of the Geological Society during which new research results were presented. I remember wonderful presentations by geologists from Lviv and Krakow as well as exciting lectures

by Prof. Władysław Szafer⁵ who studied the history of the Tertiary and Quaternary flora in the Podhale region. During these meetings I got to know the principles of genuine scientific debate.

– Geomorphology, geology, palaeobiology, palaeontology... All these interests and all this knowledge have undoubtedly taught you to view the environment holistically. However, it would be impossible not to mention your feeling, this additional sense of a true scholar who senses the proximity of a mystery though he cannot yet discover it. I mean here your conviction concerning the great role of the Holocene, which was commonly disregarded at the time by senior geomorphologists, advocating the theory of absolute domination of periglacial processes as well as forms and sediments of the Pleistocene.

– My interest in Holocene transformations goes as far back as my early youth, when I watched large quantities of bog-wood and organic-type sediments with peat or silt inserts in the Wisłoka river-bed. Of course, at that time I was still unable to answer the questions of why, how and when. It is true that in the 1950s researchers studying the environment talked almost exclusively about the glacial and periglacial periods or about the much later human influence on the environment. What had happened in the meantime did not seem to be of any interest to anybody; it was a *terra incognita*, as it were. I really wanted to study this period, all the more so because

³ MIECZYŚLAW KLIMASZEWSKI (1908-1995) – Polish geographer and geomorphologist; author of the first Polish geomorphology textbook, author of the methodological foundations and organiser of an international programme of geomorphological mapping at the IGU as well as a hydrographic mapping programme; Director of the Institute of Geography, Jagiellonian University (1949-1978), Rector of the Jagiellonian University (1964-1972), Head of the Department of Geomorphology and Hydrology of the Institute of Geography PAS (1953-1968); full member of the Polish Academy of Sciences (1971) and active member of the Polish Academy of Arts and Sciences (1990); political activist – non-affiliated member of the Polish parliament in the People’s Republic of Poland, Deputy President of the Council of State (1965-1972). More: GERLACH T., 1997. *Mieczysław Klimaszewski – jego życie i praca*. Czasopismo Geograficzne, vol. 68, no. 1, pp. 5-18.

⁴ MARIAN KSIĄŻKIEWICZ (1906-1981) – Polish geologist; creator of the Krakow school of sedimentology specialising in Carpathian flysch research; highly regarded lecturer, associated with the Jagiellonian University (1929-1939, 1945-1981, as Chair of the Department of Geology) and for some time with the Mining Academy (1951-1958); member of the Geological Society of London and many other scholarly societies. More: DŻUŁYŃSKI S., 1982. *Wspomnienie o Profesorze Marianie Książkiewiczu (1906-1981)*. Annales Societatis Geologorum Poloniae, vol. 53, no. 1/4, pp. 337-352.

⁵ WŁADYSŁAW SZAFER (1886-1970) – Polish botanist, specialist in floristics and plant geography, creator of the Polish school of palaeobotany, one of the world pioneers of nature conservation and its scientific foundations; lecturer at the Jagiellonian University (1917-1960), long-time Director of its Institute of Botany and Botanical Garden (1918-1960), founder and Director of the Institute of Botany and the Institute of Nature Conservation PAS (1953-1960); distinguished activist of the Polish Academy of Arts and Sciences and the Polish Academy of Sciences, Honorary Member of the International Union for Conservation of Nature, initiator of the establishment of several national parks. More: WOJCIECHOWSKI K., 2009. *Władysław Szafer – naukowiec, społecznik i obrońca przyrody*. *Dziki Życie*, vol. 176, no. 2, <http://pracownia.org.pl/dziki-zycie-numery-archiwalne,2234,article,4184> [24 April 2014].

the age of the remains of trees or peats from my first samples from the Wisłoka valley was dated at 6000-10,000 years – so something was happening then and it certainly could not have been any anthropogenic activity. However, in Krakow geomorphological mapping was a priority at the time and Prof. Klimaszewski, after some reflection, agreed to my pursuing my Holocene passion, though only in my spare time. On the other hand, although I was critical of periglacial research, I did go to the Łódź meetings. Professor Jan Dylík⁶, who organised them, was a very open man. He introduced archaeological methods into periglacial research and he was not afraid of criticism, even in *Biuletyn Peryglacjalny* journal where I later published several articles. So I began to collect the material for my future doctoral thesis⁷ about the Holocene in the Carpathians. I received a lot of support from Prof. Andrzej Środoń⁸ – not only an eminent palaeobotanist, but also a wonderful man. ‘My’ trunks, however, were stuck in gravel and it was commonly believed at the time that only fine alluvia from the top were associated with any human activity, while coarser material came from the cold period. These opinions were based on various remains of Dryasic flora. A turning point in our contacts with

Western Europe came in 1957, when Prof. Stanisław Leszczycki⁹ signed an agreement with the Academy of Sciences in Göttingen. The first scholars who went to Germany were Professors S. Leszczycki, J. Dylík and M. Klimaszewski; later Leszek Kosiński¹⁰ was allowed to go there for a month as well as were Antoni Kukliński¹¹ and myself. I will never forget how in Göttingen and later in Bonn I stood before Carl Troll¹² presenting the theses of my

⁹ STANISŁAW MARIAN LESZCZYCKI (1907-1996) – Polish geographer; organiser of Polish geography after the Second World War, Director of the Institute of Geography of the Jagiellonian University (1945-1948) and the Institute of Geography of the University of Warsaw (1951-1970), founder and Director of the Institute of Geography PAS (1953-1977); Chair of the Polish IGU Committee (1956-1976), President (1968-1972) and Vice-President (1964-1968, 1972-1976) of the IGU; Honorary Member of nineteen scholarly geographical societies; political activist: borders expert of the Provisional Government of the Republic of Poland, deputy to the State National Council (1945-1947) and the Legislative Parliament (1947-1952), Undersecretary of State at the Ministry of Foreign Affairs (1946-1950); in 1998 the Institute of Geography and Spatial Organization PAS was named after him. More: KORCELLI P., 2007. *W 100-lecie Urodzin Stanisława Leszczyckiego*. Przegląd Geograficzny, vol. 79, no. 3/4, pp. 373-374 and other papers in this volume.

¹⁰ LESZEK ANTONI KOSIŃSKI (b. 1929) – Polish and Canadian geographer; associated with the Institute of Geography PAS (1954-1967) and University of Alberta (1969-1994) in Edmonton; took an active part in the work of the IGU (1972-1992) and UNESCO's International Social Science Council (1986-2002); member of numerous geographical societies, winner of the prestigious title of ‘Laureat d'Honneur’ awarded by the IGU (2008). More: KOSIŃSKI L.A., ŚLESZYŃSKI P., 2014. *Geographia Polonica: A window onto the world. An interview with Professor Leszek Antoni Kosiński*. Geographia Polonica, vol. 87, no. 2, pp. 277-294.

¹¹ ANTONI KUKLIŃSKI (b. 1927) – Polish geographer and economist; associated with the University of Warsaw (1950-1997) and the Institute of Geography PAS; consultant of the United Nations Economic Commission for Europe and Director of the regional studies programme at the United Nations Research Institute for Social Development (1965-1971), founder and Director of the Centre for European Regional and Local Studies, University of Warsaw (1991-1996).

¹² CARL TROLL (1899-1975) – German geographer; author of the term and original concept of landscape ecology, researcher studying vertical zonation of mountain regions, one of the pioneers of the use of aerial photographs in landscape research; associated with the Universities of Berlin and Bonn; president of the IGU (1960-1964). More: BUTZER K.W., 1976. *Carl*

⁶ JAN DYLIK (1905-1973) – Polish physical geographer and geomorphologist; expert on periglacial geomorphology and pioneer of research in this field; co-founder of the University of Łódź and long-time director of its Institute of Geography, Head of the Laboratory of General Geomorphology of the Institute of Geography PAS in Łódź (1954-1966); co-founder of the Łódź Scholarly Society, founder of *Biuletyn Peryglacjalny* (Periglacial Bulletin) and *Acta Geographica Lodzensis*; Chair of the Commission on Periglacial Geomorphology of the IGU (1958-1972). More: KŁATKOWA H., 1995. *Profesor Jan Dylík*. Ser. Sylwetki łódzkich uczonych, vol. 21, Łódź: Łódzkie Towarzystwo Naukowe.

⁷ STARKEL L., 1960. *Rozwój rzeźby Karpat fliszowych w holocenie*. Prace Geograficzne, vol. 22, Warszawa: IG PAN.

⁸ ANDRZEJ ŚRODOŃ (1908-1998) – Polish botanist and palaeobotanist; expert on Quaternary floras; long-time lecturer at the Institute of Botany of the Jagiellonian University, Head of the Department of Palaeobotany at the Institute of Botany PAS (1961-1978); full member of the Polish Academy of Sciences (1976). More: STUCHLIK L., 1988. *Profesor Andrzej Środoń w 80. rocznicę urodzin*. Acta Palaeobotanica, vol. 28, no. 1-2, pp. 5-14.

doctorate in my halting German. They were received with great interest and the German scholars believed in the validity of my claims. After I wrote my PhD thesis, much to my great joy highly regarded by the then luminaries of Polish geomorphology, i.e. Rajmund Galon¹³, Jan Dylík and Alfred Jahn¹⁴, a huge opportunity opened up for me to become known outside Poland. We need to bear in mind here that the name Holocene was not yet commonly used and the Holocene Commission of the International Union for Quaternary Research, INQUA, was established only at the 6th INQUA Congress in 1961 in Warsaw. The year 1966 was to be that of the first meeting, to be held in London, devoted to global climate change in the Holocene. A. Środoń, who had become a friend of mine by then, received an invitation because he had earlier worked in Cambridge together with a leading British palaeobotanist, Harry Godwin¹⁵. However, Professor Środoń had some problems with verbal communication and avoided large gatherings. He suggested that I go instead, provided that I prepared

a paper that would deal with a continental or global issue. So I presented the state of research into the evolution of the relief of our continent in the Holocene and a plan for a future research programme devoted to the Holocene in Europe. I have to admit that I presented all this feeling very nervous, because, after all, I was speaking before the most distinguished specialists in glaciology, palaeobotany or climatology.

– A young academic, a virtually unknown geomorphologist, comes and ‘bosses around’ the most important figures in the world of science.

– In a way, it was like that – I was 35 years old at the time and the audience members were mostly 60-80. Fortunately, there were also those among them who treated their younger colleagues as partners. One such person was Rhodes Fairbridge¹⁶, who in the 1960s and 1970s was the editor of an epoch-making encyclopaedia of earth sciences series. Ten years later, in the late 1970s, he invited me to his home in Long Island, near New York, where we discussed the layout and thematic scope of the next volume that was to be devoted to the Holocene. It is a great pity that the publishing company decided not to continue the series. This is how chance governs our lives – I found myself in London, simply because Prof. Środoń stammered.

– It seems to me that lucky coincidences have played an important role in your life. If it had not been for them your life as a scientist would have followed a totally different path, almost like a train after the points have been switched. I mean here first of all the catastrophic rainfall in India and Nepal in October 1968. Its consequences, i.e. drastic remodeling of the slopes and beds of streams, could

Troll (1899-1975). Geographical Review, vol. 66, no. 2, pp. 234-236.

¹³ RAJMUND GALON (1906-1986) – Polish geographer and geomorphologist, one of the founders of the Polish school of geomorphology, associated mainly with the Nicolaus Copernicus University in Toruń. More: KALEMBKA S., 1995. *Pracownicy nauki i dydaktyki Uniwersytetu Mikołaja Kopernika 1945-1994. Materiały do biografii*. Toruń: Wydawnictwo Uniwersytetu Mikołaja Kopernika.

¹⁴ ALFRED JAHN (1915-1999) – Polish geographer, geomorphologist and polar zone researcher; Head of the Department of Physical Geography and then Department of Geomorphology (1950-1999) at the University of Wrocław, of which he was Rector (1962-1968); President of the Polish Geographical Society (1971-1975) and the Polish Polar Club, full member of the Polish Academy of Sciences (1983). More: WOJCIANOWICZ J., *Alfred Jahn (1915-1999)*, http://www.pan-ol.lublin.pl/biul_5/art_515.htm [20 April 2014].

¹⁵ HARRY GODWIN (1901-1985) – British botanist and ecologist; throughout his professional career associated with Clare College, University of Cambridge, where he founded the Subdepartment of Quaternary Research (1948); one of the pioneers of ¹⁴C radiocarbon dating. More: WEST R.G., 1988. *Harry Godwin. 9 May 1901-12 August 1985*. Biographical Memoirs of Fellows of the Royal Society, vol. 34, pp. 260-292.

¹⁶ RHODES FAIRBRIDGE (1914-2006) – Australian and later American geologist; global climate change specialist; Professor of Geology at Columbia University, New York (1954-1982), long-time President of the INQUA Coastal Commission, Neotectonic Commission and Holocene Commission, editor-in-chief of the *Encyclopedia of Earth Sciences* (1964-1978). More: FINKL C.W. (ed.), 2005. *The Sun, Earth and Moon. In Honour of Rhodes W. Fairbridge*. Journal of Coastal Research, Special Issue, no. 42.

be seen during your first visit to Darjeeling (West Bengal) less than two months after the event. And this feeling that it is worth staking everything on one card...

– That is well put – various coincidences and, at the same time, people who put me onto new paths or at least did not prevent me from pursuing my passions are all elements that have played a very important role in my life. When it comes to the Himalayas... As far as I can remember, I have always dreamt of seeing the highest mountains in the world. In 1968 the IGU Congress was held in Delhi and the pre-congress symposium of the Periglacial Commission in Siliguri; it was combined with a trip to Darjeeling. Those who decided to put their names up included A. Jahn, M. Klimaszewski and myself. I wrote a desperate letter to the President of the Congress, Prof. Chatterjee¹⁷, who helped me get a scholarship at the last moment. Unfortunately, we were late for the symposium and went straight to Darjeeling, which was not easy to reach, as the 80-kilometer road was interrupted in about 200 places. I decided immediately that after the IGU Congress I would do everything to return there. I agreed with a professor from Calcutta, a teacher from the local Loreto College, and a forest district manager that I would come in mid-December. However, no one was waiting for me when I arrived and I was left with a quarter of what was in any case a starvation-level daily allowance in a small hotel with a beautiful view of the third highest mountain in the world, Kanchengjunga. I went out the first day and began to despair. I was completely alone, without a scrap of a map, with only a paper notebook, pencil, compass, altimeter and clisimeter at my disposal. I went to the office of the Darjeeling Planters Association and that was like

¹⁷ SHIBA P. CHATTERJEE (1903-1989) – Indian geographer associated with the University of Calcutta, founder of the National Atlas Organisation research centre, president of the IGU (1964-1968). More: MOOKERJEE S., 1998. *Shiba P. Chatterjee, 1903-1989* [in:] P.H. Armstrong, G.J. Martin (eds.), *Geographers. Bibliographical Studies*, vol. 18, London-Washington: Mansell.

scoring a bull's-eye. We agreed that I would make reports for them, using their cadastral maps as the basis and in exchange they would provide me with free meals and accommodation as well as transport to take me to the most damaged tea plantations. Fortune smiled on me again, when it turned out that each of the 50 plantations in the region had rain gauges, placed only 3-4 km apart. Thanks to such detailed rainfall data I learned that over 52 hours there had been nearly 1100 mm of rain, i.e. what Poland got over 2 years on average. Initially, the rainwater was soaked up by the dusty-sandy soil on metamorphic rocks. The critical moment came in the last 4 hours, when 200 mm of rain fell, and fluidised saprolites on the slopes and raised the water level in rivers by over 20 metres. Debris flows contained rocks several metres large and filled river beds with rubble. Within a few hours the landscape of a vast area was remodelled on an unprecedented scale. Soon after that I came there to do my research.

– The conditions were Spartan, you were more than ten-thousand kilometres from home without any substantive support and almost without any money, and yet you produced a paper¹⁸ which was published four years later in *Geographia Polonica* and which became part of the international canon. However, the arsenal of happy coincidences in your life is much richer. A few years earlier you had been asked to be a co-author of a geological-tourist guide to the Vistula River¹⁹. Working on the popular chapter on the section of the river from its sources to Tarnobrzeg aroused your interest in this region for a number of years to come, which led, for example, to collective research into the evolution of the entire Vistula valley in the late Vistulian and Holocene under the IGCP-158 programme *Palaeohydrological changes*

¹⁸ STARKEL L., 1972. *The role of catastrophic rainfall in the shaping of the relief of the Lower Himalaya (Darjeeling Hills)*. *Geographia Polonica*, vol. 21, pp. 103-147.

¹⁹ GŁODEK J., KOLAGO C., MOJSKI J.E., STARKEL L., 1967. *Z biegiem Wisły. Przewodnik geologiczno-krajoznawczy*. Warszawa: Wydawnictwa Geologiczne.

in the temperate zone in the last 15 000 years (1978-1988), and then to a six-volume monograph, *Evolution of the Vistula river valley during the last 15 000 years*²⁰.

– My interest was linked to the already mentioned bog-wood; at that time I also carried out research in the Wisłoka and San river valleys. At the same time Cyryl Kolago²¹ and Edward Mojski²² invited me to write the geological part of the guide covering the region of the upper Vistula. The reason was prosaic – there was no one else to do it. Indeed, although this initially innocent proposal did not change the direction of research that was already under way, it did contribute to my undertaking a daring task of compiling a history of the entire Vistula valley.

– I meant the region and not a reorientation of research interests. You have to admit that the specificity of small rivers is completely different from that of the valley of a big river like the Vistula.

– Of course it is. At this point I have to say that throughout my life I have tried to build large interdisciplinary teams including geomorphologists, palaeobotanists, soil experts, geologists... This is worthy of note because today such an approach is very rare; all researchers in the programme you have mentioned worked completely for free because all the money went into ¹⁴C dating. As a reward, every year these authors

would receive some of this radiocarbon dated material to carry out research in their own fields. I remember looking for someone at that time to take care of dendrochronology. A friend of mine from my student days, Stefan Witold Alexandrowicz²³, found a student who became very keen on studying bog-wood. He was Marek Krąpiec, today a professor at the University of Science and Technology, who has distinguished himself in implementing dendrochronology in the broadly defined earth sciences, archaeology and the history of art.

– The 1960s were also the beginning of the Polish Academy of Sciences Research Station in Szymbark, which you co-created as its manager from the very beginning. Can we speak of a coincidence in this case too?

– In a way, we can. In 1965 the then Administrative Director of the Institute was trying to persuade Leszczycki to set up a new station in the Rzeszów Province (today Podkarpackie Province), if possible in the Lower Beskids. To be perfectly honest, it was more about a holiday retreat for his colleagues from the Warsaw headquarters. With the help of a colleague from the Regional Planning Commission in Rzeszów they found a run-down estate in Szymbark near Gorlice. A search began for a manager of the site, which still housed a silver fox breeding farm belonging to one of the state-owned farms. At first Klimaszewski turned to Tadeusz Gerlach, a newly promoted doctoral graduate from the Krakow department, who, however, did not want to abandon his slope wash research which he carried out in Jaworki near Szczawnica. So it fell to me. From the very beginning I called for the creation of a broader research programme, something like the observations

²⁰ STARKEL L. (ed.), 1982-1996. *Evolution of the Vistula river valley during the last 15 000 years. Part I-VI*. Geographical Studies, Special Issues, no. 1 (1982), 4 (1987), 5 (1990), 6 (1991), 8 (1995), 9 (1996), Warsaw: IGI PAN; a one-volume synthesis in Polish was published in the *Monografie IGI PAN* series in 2001.

²¹ CYRYL KOLAGO (1915-1987) – Polish hydrogeologist associated with the Polish Geological Institute from 1951; developer of concepts for many hydrogeological maps, including *Przeglądowa mapa hydrogeologiczna Polski 1:300 000* (Hydrogeological Reference Map of Poland 1:300,000) (1955-1963). More: MALINOWSKI J., PŁOCHNIEWSKI Z., 1988. *Cyryl Kolago 1915-1987*. *Przegląd Geologiczny*, vol. 36, no. 3, pp. 192-193.

²² JÓZEF EDWARD MOJSKI (b. 1926) – Polish geologist; one of the leading Quaternary stratigraphy researchers; associated with the Polish Geological Institute and the Institute of Oceanography, University of Gdańsk. More: MOJSKI J.E., 2006. *Kilka wspomnień bez tytułu*. Gdańsk: Fundacja Rozwoju Uniwersytetu Gdańskiego.

²³ STEFAN WITOLD ALEXANDROWICZ (b. 1930) – Polish geologist and Quaternary malacofauna researcher; since 1951 associated with the Mining Academy (currently University of Science and Technology), where he has held a number of managerial positions; active member of the Polish Academy of Arts and Sciences (1996), populariser of geological knowledge, expert on nature conservation. More: KRĄPIEC M., 2005. *Jubileusz 75-lecia Profesora Stefana Witolda Alexandrowicza*. *Przegląd Geologiczny*, vol. 53, no. 6, pp. 461-463.

conducted in the valleys of the Jaszce and Jamne streams in Gorce. I was able to negotiate doctoral scholarships from Leszczycki, who was open to new initiatives. These supported three passionate young scholars who wanted to devote their lives to science: January Słupik, who died prematurely in 1982 and who simply dreamt of studying water circulation on slopes; Eugeniusz Gil, who later became the manager of the station and who also worked for a geological company; and Lonek Dauksza, who dealt with geophysical matters in a petroleum company. We began our work in a single room, in which we slept, ate and kept our measuring equipment; there were fox cages in the garden and the smell was awful. I remember a visit by Prof. Kazimierz Dziewoński²⁴. Later, during a meeting at the Institute, he talked about primitive conditions in which members of Starkel's team lived and worked. It would be difficult to say whether this distinguished architect was more shocked or worried by what he had seen. When the invasion of Czechoslovakia began, things became less pleasant. Leszczycki received a letter from the party organisation in Gorlice informing him that individuals hostile to the events at the time were present in Szymbark and that they had to be immediately removed. In fact this was about... dogs which were brought to the station. They were aggressive, made our job difficult, and one of the doctoral students was bitten. Our opposition to the presence of these animals was behind this alleged seditious activity mentioned in the letter.

– **It seems to me that this was the only case in which politics affected you directly, Professor,**

²⁴ KAZIMIERZ DZIEWOŃSKI (1910-1994) – Polish geographer, architect and urban planner; made very important contributions to the development of the theory of economic regions, economic regionalisation as well as the economic base and functional structure of cities; associated with the Institute of Geography PAS from 1953 (Deputy Director 1961-1972), for many years Chair of the Committee on Spatial Development and Committee on Geographical Sciences, full member of the Polish Academy of Sciences (1976). More: KOSTROWICKI J., 1980. *Kazimierz Dziewoński. Uczony i człowiek*. Przegląd Geograficzny, vol. 52, no. 4, pp. 639-643.

albeit in a grotesque manner. In all reminiscences we find statements that our Institute was not very politicised and that its staff were not blatantly indoctrinated. I have been wondering whether it was a kind of protective umbrella provided for his people by Prof. Leszczycki or whether the Institute's profile played a part here. After all, it is difficult to write at length about Marxist ideology in papers devoted to climatology or geomorphology. On the other hand, economic geographers referred in those days to naturalism – research focused on products of human activity, with humans becoming objectified, dehumanised, by being described e.g. as workforce. This is how authors avoided sensitive social issues. Of course, these are just examples, because reality must have been much more complicated²⁵.

– In Krakow the reasons were different. However, in order to make them clear, I have to go back to my student days or even earlier than that. When I was in my secondary school, a year before our final exams our teachers were given an ultimatum – either we would join some organisation or our teachers would be transferred to a village school. The whole class chose the 'Wici' Union of Rural Youth of Poland, which soon after that became part of the Union of Polish Youth (Związek Młodzieży Polskiej, ZMP). Thus I graduated from my school in Debica as a ZMP member and then went to Krakow, a traditional stronghold of Catholicism and of views that did not necessarily follow the only correct line, i.e. that of the party. Initially, students who were born and bred in Krakow regarded us from the provinces as communists and clearly kept to themselves. It was not until a retreat at the Church of St. Anne that they saw, much to their amazement, that members of the ZMP went to Mass. As if that had not been enough, it turned out that during the exam session these 'communist' students from Rzeszów province did not pay much attention to political economics or dialectical and historical materialism.

²⁵ LESZCZYCKI S., 1991. *Życie na przełomie 1907-1990*. *Kwartalnik Historii Nauki i Techniki*, vol. 36, no. 3, pp. 1-54.

– We could, therefore, say that part of the foundations of the newly established Institute of Geography of the Polish Academy of Sciences was laid by that unaware group of students from the provinces, including some of your colleagues, also employed at the headquarters of the Institute in Warsaw. What was Leszczycki's position on these matters?

– In Warsaw we could indeed speak of a protective umbrella of sorts provided for the Institute staff by Leszczycki. He was a man for whom political past or social background did not matter at all. Sometimes, when he had a choice, he would even deliberately employ people with some 'flaws' in their CVs. At this point it is worth recalling, though not in a political context, the figure of Bogodar Winid²⁶, who turned out to be a truly providential figure for the Institute. Somehow or other he organised the library and assembled cartographic collections; in addition, he was in charge of the logistics of overseas trips, including those to IGU congresses. It was thanks to Winid that each congress featured a Polish exhibition, mainly of maps. On the other hand, he would bring to Poland publications and cartographic material published in the West, which could not have been obtained through any other channels. Before each IGU congress there would be meetings of the Committee on Geographical Sciences – two-day seminars with presentations of papers, attracting people from all over Poland; the best papers would be published in *Geographia Polonica*. Delegates for IGU congresses were selected from among their authors, which guaranteed the high quality of all presentations. There was also a well-thought-out policy concerning the composition of the various commissions; there was no room for improvisation or *ad hoc* actions.

²⁶ BOGODAR WINID (1922-1996) – Polish geographer and cartographer, one of the founders of the Institute of Geography, University of Warsaw, with which he was associated all his life, holding numerous managerial positions; staff member of the Institute of Geography PAS (1953-1964), UN cartography adviser in Bangladesh and Yemen (1980-1987). More: SKOCZEK M., 2008. *Bogodar Winid 1922-1996*. *Prace i Studia Geograficzne*, vol. 40, pp. 217-232.

Leszczycki made sure it worked like that; he talked to presidents of the various commissions, but at the same time did not take part in meetings of the heads of delegations from socialist countries presided over by Innokenti Gerasimov²⁷, meetings which focused on personnel policy during elections to the Union's executive bodies. And that was a real master stroke on Leszczycki's part.

– Staying with the still relevant topic of the IGU congresses, let us talk a bit about international cooperation. What emerges from your stories is an image of the Institute which from the 1956 IGU congress in Rio de Janeiro, that is, almost from the very beginning, began a very intense collaboration with the West. This was unusual in those days. In addition, our papers dealing with geomorphological and hydrographic mapping, land use mapping, topoclimate and periglacial problems were simply admired in the West. Did you owe these international contacts only to Leszczycki's organisational skills or perhaps there was simple curiosity behind this as well? After all, just as you had problems with becoming known in the West, your Western colleagues did not find it easy either to learn what was happening here.

– This advancement, as it were, of Polish geography, which began in 1956, should be analysed with reference to the political situation in Poland in the preceding period. Before 1939 Polish geographers launched their studies in various parts of the world, especially in polar regions. In the inter-war period geomorphologists, glaciologists and climatologists worked on Spitsbergen (M. Klimaszewski, S. Różycki²⁸)

²⁷ INNOKENTI P. GERASIMOV (1905-1985) – Soviet geographer, pedologist and geomorphologist; Director of the Institute of Geography of the Soviet Academy of Sciences.

²⁸ STEFAN ZBIGNIEW RÓŻYCKI (1906-1988) – Polish geologist and geographer; polar zone researcher associated with the Polish Geological Institute, University of Warsaw (co-founder of the Faculty of Geology, 1952) and the Institute of Geological Sciences PAS; founder of Quaternary Research Committee PAS; full member of the Polish Academy of Sciences (1965); participant in many research expeditions. More: BIRKENMAJER K., LINDNER L., 1989. *In memoriam – Stefan Zbigniew*

and Greenland (A. Kosiba²⁹, A. Jahn). However, in the aftermath of the war they could not travel overseas for ten years to do their research or to take part in international conferences. It turned out that Poles did not waste those eleven years until the first uprising of the working class in 1956. They carried out detailed field and desk research in Poland, laying the methodological and theoretical foundations for various branches of geography. These fundamental studies and new methods became the main reason why Polish geography was so highly regarded from the moment the contacts with international science were resumed. Thus, paradoxically, the man who contributed to the development and advancement of Polish geography was Joseph Stalin and his decision to close the borders of our country. Their reopening after Stalin's death had a very measurable effect, as Poles became members of several IGU commissions at the Rio de Janeiro congress and one year later Dylík organised an international periglacial symposium in Łódź, which was a genuine meeting between East and West.

– Was it not an example of the ‘snowball effect’? Leszczycki was instrumental in the first Poles going to Rio de Janeiro, and what they showed there was so novel and so different from Western scholars’ ideas of our scholarship that in the following years you were guests that everyone was looking forward to see. By the following year a strong delegation was already going to the INQUA congress in Spain (1960), then there were the IGU congresses in Stockholm (1960) and London (1964), the IGU Sub-commission on Geomorphological Mapping (1960-68) was set up in the meantime...

– Yes, that's correct. In Spain people even insisted on organising the 1961

Różycki (1906-1988), an eminent Polish polar geologist. Polish Polar Research, vol. 10, no. 1, pp. 105-110.

²⁹ ALEKSANDER KOSIBA (1901-1981) – Polish geographer, geophysicist, glaciologist and climatologist; associated with Lviv and then the University of Wrocław (1945-1971), founder and long-time Chair of its Department of Meteorology and Climatology; initiator of the founding of the Meteorological Observatory on Szrenica in the Karkonosze Mountains, organiser of several Polish expeditions to Spitsbergen (1957-1960).

INQUA congress in Poland. I still remember how we worked with Mojski in the secretariat of the Organising Committee chaired by Szafer with Leszczycki acting as one of the deputy chairs. Professor Leszczycki was a peacemaker, because he was able to reconcile scholars with very different views, at the same time leaving them a lot of freedom. In addition, as he organised, in the autumn of 1953, the Institute of Geography in the newly established Polish Academy of Sciences, he perfectly understood the situation at the time and the limitations stemming from it. This was evidenced by the fact that he made it possible to establish many thematic laboratories – he created such a possibility for Galon in Toruń, Klimaszewski in Krakow, Dylík in Łódź, Franciszek Uhorczak³⁰ in Lublin, Jerzy Kostrowicki³¹ in Warsaw and Bolesław Olszewicz³² in Wrocław. Scholars in the other states of the Eastern Bloc, perhaps with the

³⁰ FRANCISZEK UHORCZAK (1902-1981) – Polish cartographer and geographer associated with the Maria Curie Skłodowska University in Lublin; co-author of *Polska przeglądowa mapa użytkowania ziemi 1:1 000 000* (Polish Land Use Reference Map 1:1,000,000) (1946-1957); author of important studies dealing with the theoretical basis and practical application of cartographic and statistical methods. More: SIRKO M., MOŚCIBRODA J., 2002. *Prof. dr Franciszek Uhorczak – Jego wkład w rozwój polskiej kartografii (w stulecie urodzin)*. Polski Przegląd Kartograficzny, vol. 34, no. 4, pp. 251-260.

³¹ JERZY KOSTROWICKI (1918-2002) – Polish geographer; from 1954 associated with the Institute of Geography PAS (Deputy Director 1959-1960, 1972-1978, Director 1978-1987); corresponding member of the Polish Academy of Sciences (1973), distinguished IGU Member: full member of the Commission on World Land Use Survey (1956-1972), Chair of the Commission on Agricultural Typology (1964-1976) and the Commission on Agricultural Productivity and World Food Supplies (1976-1980), Vice-President (1976-1984) and IGU representative at FAO. More: DZIEWOŃSKI K., 1977. *Jerzy Kostrowicki – geograf, uczoney i człowiek*. Przegląd Geograficzny, vol. 49, no. 4, pp. 621-623.

³² BOLESŁAW OLSZEWICZ (1893-1972) – Polish geographer, historian of cartography and geography; curator of the University of Warsaw Library (1933-1939), Chair of the Department of Historical Geography, University of Wrocław (from 1946) and the Geography and Cartography Laboratory at the Institute of Geography PAS (from 1953); co-founder of the Polish Geographical Society and the Society of Polish Bibliophiles.

exception of Hungary, focused almost exclusively in that period on writing regional monographs and creating national atlases.

– What emerges from all the recollections is a portrait of Prof. Leszczycki which is as extraordinary as it is equivocal. On the one hand, we have a man who was open to people, who was able to talk to them, who listened to them and understood their needs, who placed great trust in them without any guarantee of success. An eminent organiser, a logistics expert, a visionary even. On the other hand, the nickname ‘King Staś’ suggests a monarchic style of leadership and serfdom rather than partnership. Just as complex is Leszczycki’s portrait as a politician. A member of the Polish Socialist Party and then the Polish United Workers’ Party, a good friend of Józef Cyrankiewicz³³, in the early post-war years an advocate of Marxist ideas and thinking in geography, a man who suggested that geographical research be closely linked to the socialist construction of socio-economic life. At the same time he was a great champion of multi-level contacts with both the East and the West, though the excellent and fruitful interpersonal collaboration with Soviet scholars was not always transferred to the institutional level, contrary to popular opinion³⁴. It is also worth bearing in mind that it was only thanks to the Professor’s indomitable and extremely courageous attitude during the 1945 Moscow conference that a significant part of the Western Bieszczady Mountains is now part of Poland and not Ukraine³⁵.

³³ JÓZEF CYRANKIEWICZ (1911-1989) – Polish socialist and communist, five-time Prime Minister of Poland (1947-1952 and 1954-1970); pursued a policy of total subordination to the USSR.

³⁴ SZUPRYCZYŃSKI J., 2007. *Profesor Stanisław Leszczycki jako Dyrektor Instytutu Geografii PAN*. Przegląd Geograficzny, vol. 79, no. 3-4, pp. 391-393.

³⁵ EBERHARDT P., 2007. *Udział Profesora Stanisława Leszczyckiego w konferencji poczdamskiej i moskiewskiej*. Przegląd Geograficzny, vol. 79, no. 3-4, pp. 375-381; EBERHARDT P., 2012. *The Curzon line as the eastern boundary of Poland. The origins and the political background*. Geographia Polonica, vol. 85, no. 1, pp. 5-21.

– In all this tangled history he undoubtedly had a great sense of the value of Polish studies and of how they could be sold effectively. In addition, he was a brilliant politician, but not in the sense of being a party member. I mean here that in the most difficult moments he was able to take decisions quickly, taking on all the responsibility for any consequences. Thanks to such a decisive attitude as well as an element of surprise in his interlocutors, he was able to achieve much more than he would have had he lingered and waited for what the others would do. Despite his royal nickname, he did try to resolve a lot of issues in a collegial manner.

– And what do you remember about the years when Prof. Jerzy Kostrowicki served as Director?

– Jerzy Kostrowicki continued along the lines set by Leszczycki. I respect him greatly, because he led the Institute throughout the difficult 1980s. I remember meetings during which we discussed the concepts of interdepartmental programmes which would give us some independence from various lobby groups – biologists, farmers or various planning units. In 1981 I prepared the MRI-25 Central Programme entitled *Transformations of Poland’s geographical environment* (in 1986-1990 CPBP.03.13 *The evolution of Poland’s geographical environment*); there were no volunteers to be the leader. I was not very eager myself, but in the end we set up a team, the core of which was made up of Andrzej Samuel Kostrowicki³⁶, Stefan Kozarski³⁷, Irena

³⁶ ANDRZEJ SAMUEL KOSTROWICKI (1921-2007) – Polish zoologist and geographer, specialist in biogeography; in 1965-1998 associated with the Institute of Geography and Spatial Organization PAS (Head of the Department of Environmental Management, 1973-1993); long-time lecturer at the Faculty of Geography and Regional Studies and the Faculty of Biology, University of Warsaw. More: BIEGAŃSKI L., 2001. *Nota biograficzna i kartki do Sztambucha* [in:] E. Roo-Zielińska, J. Solon (eds.), *Między geografią a biologią – badania nad przemianami środowiska przyrodniczego*, Prace Geograficzne, no. 179, Warszawa: IGiPZ PAN, pp. 11-23.

³⁷ STEFAN KOZARSKI (1930-1996) – Polish geographer and geomorphologist, specialist in analyses of relief and glacial and periglacial processes; from 1955 associated

Dynowska³⁸ and myself as the coordinator. Great support we got from our Krakow team: secretary January Słupik (later Roman Soja), members Adam Kotarba, Sylwia Gilewska and others. There were thematic groups and every year their special commissions reviewed the progress of the work of various research teams. The most important results of this work included a monograph entitled *Geografia Polski – środowisko przyrodnicze* (Geography of Poland – natural environment)³⁹. Another line of research that developed during Kostrowicki's tenure was our Indian studies realized by a permanent group of collaborators. In addition, I always wanted to make sure that the Indian studies would have Indian co-authors and that the results would be published also by the Indian National Science Academy.

– Since we are back to expedition-based research, it is worth mentioning that in the autumn of 2013 our Institute signed a cooperation agreement with the School of Geography and Geology, National University of Mongolia. Is there a chance for a repeat after all these years? The Mongolian studies in the 1970s

featured scholars from all over Poland; it was a great enterprise.

– It, too, came about by chance. In 1970 Leszczycki and Klimaszewski went to Mongolia. When they came back, we prepared a preliminary research plan, but in those days there were frequent expeditions of Polish palaeontological teams to Genghis Khan's country and they reached the limit for this type of expeditions. All of a sudden the International Relations Office contacted us – it turned out that the Mongolian side had decided to discontinue the collaboration with the palaeontologists and our Krakow team could take their place. We had 4-5 months for the substantive and logistical preparation, virtually from scratch, of the entire expedition. Together with Kazimierz Klimek⁴⁰, who agreed to coordinate the whole venture with support of Wojciech Froehlich and January Słupik, we quickly selected members of the first expedition – from Toruń, Krakow, we invited the pedologist Alojzy Kowalkowski⁴¹ from the Institute of Forestry Research, Kazimierz Pękala⁴² a specialist in permafrost phenomena from Lublin, and Anna Pacyna – a botanist from the Institute

with the Adam Mickiewicz University in Poznań: Deputy Dean and Dean of the Faculty of Biology and Earth Sciences (1966-1972), Director of the Institute of Geography (1971-1980), Deputy Rector (1972-1981), Head of the Department of Geomorphology (1966-1996); long-time Chair of the Committee on Geographical Sciences of the Polish Academy of Sciences, corresponding member of the Academy (1989); active member of the Polish Academy of Arts and Sciences (1994). More: NOWACZYK B., 1997. *Stefan Kozarski 1930-1996*. *Annales Societatis Geologorum Poloniae*, vol. 67, no. 1, pp. 105-107; STARKEL L., 2011. *Spotkanie na drodze*. Warszawa: Szkoła Wyższa Przymierza Rodzin, pp. 134-136.

³⁸ IRENA DYNOWSKA (Irena de Dynowska-Balcer, 1929-1995) – Polish geographer and hydrologist, author and initiator of the creation of many hydrographic maps; from 1954 associated with the Jagiellonian University as Deputy Director of the Institute of Geography (1984-1991) and Head of the Department of Hydrography (1973-1995); Chair of the Hydrography Commission of the Polish Geographical Society (1976-1990) and the Committee on Geographical Sciences at the Polish Academy of Sciences' Krakow branch (1982-1995). More: BAŚCIK M. (ed.), 2010. *Irena de Dynowska Balcer 1929-1995. Pro Memoria*. Kraków: IGIgP UJ.

³⁹ STARKEL L. (ed.), 1991. *Geografia Polski – środowisko przyrodnicze*. Warszawa: PWN.

⁴⁰ KAZIMIERZ KLIMEK (b. 1934) – Polish geographer and geomorphologist associated with the Institute of Geography PAS (Department of Geomorphology and Hydrology of Mountains and Uplands in Krakow, 1960-1979), then with the Department of Nature and Natural Resources Conservation PAS in Krakow (head in 1979-1991) and the Faculty of Earth Sciences, Silesian University (since 1992, Chair of the Department of Quaternary Palaeogeography and Palaeoecology in 1992-2004).

⁴¹ ALOJZY KOWALKOWSKI (b. 1924) – Polish pedologist, specialist in soil classification, fertilisation and periglacial processes; associated with the School of Agriculture in Poznań (until 1970), Institute of Forestry Research in Warsaw (since 1970) and the School of Pedagogy in Kielce (since 1985). More: JÓŹWIĄK M., 2004. *Alojzy Kowalkowski – profesor, naukowiec, wychowawca*. *Regionalny Monitoring Środowiska Przyrodniczego*, vol. 5, pp. 7-44.

⁴² KAZIMIERZ PĘKALA (b. 1936) – Polish geographer; since 1961 associated with the Faculty of Biology and Earth Sciences of the Maria Curie Skłodowska University in Lublin (Head of the Department of Geomorphology of the Institute of Earth Sciences in 1992-2006); organiser of 17 expeditions to Spitsbergen; member of the International Permafrost Association, President of the Polar Club of the Polish Geographical Society (1991-2000).

of Botany, Jagiellonian University. It was sheer madness, but we made it. Later, during a prosperous period under Klimek's leadership, there would be no fewer than 3-4 Polish expeditions every year. The results of all those studies were published in English, but, unfortunately, almost exclusively in the Institute's periodical *Prace Geograficzne*⁴³. It is a great pity, because some very original results were never circulated internationally.

– Let us dwell a little bit more on the topic of international cooperation. In the 1960s and 1970s Polish geographers were focused on the East, but, at the same time, looked west with great interest, watching ideas, theories or methods that were being developed there. The 1980s seem to me to have been a period of stagnation and waiting to see what would happen – relations with the East became less cordial for obvious reasons and a full opening to the West was still impossible. On the other hand, the 1990s were marked by a spontaneous turn to the West, often combined with burning one's existing bridges, both institutionally and mentally. In recent years, despite the still dominant pro-Western, especially Anglo-American, orientation people have begun to revive their contacts with the East or the South. The best evidence of that in our Institute is provided by bilateral initiatives with countries of the former Eastern Bloc or even official bilateral cooperation agreements signed with e.g. the Institute of Geography of the National Academy of Sciences of Ukraine and the already mentioned School of Geography and Geology from Mongolia. What will happen in 20-30 years, I wonder? If captivity and the euphoria of freedom are now behind us, then

perhaps we will have a state of more or less unstable equilibrium?

– Indeed, we are reaching some sort of equilibrium. I must note, however, that in our work in the INQUA Global Continental Palaeohydrology Commission and in other programmes (including UNESCO), we have always had good relations with all partners – both with the eastern and the western part of this geopolitical arena. An interesting phenomenon is emerging at the moment – in some projects our colleagues from the West bypass us and opt for direct collaboration with Romania, Hungary or Bulgaria. For example, the Dutch study river valleys in Hungary and the European part of Russia, and the English work in Romania. They prefer to work with them and engage them as sub-contractors in their projects because Polish scholars may be too good and do not guarantee financial support. We are rarely treated as full partners. The exception is collaboration on global problems, but, unfortunately, there is little interest in such topics in Poland. On the other hand, many colleagues from our Institute, especially socio-economic geographers, are now taking part in international programmes, though those which we coordinate are rare. It seems to me that Polish geography is still somewhat parochial, although today it is completely different from what it was in the 1960s and 1970s. What contributes to this is thematic fragmentation associated with the grant system and the pursuit of academic degrees.

– In the context of the Mongolian expeditions, you have touched upon the subject of international circulation of the journals published by our Institute. So it is now time to ask – what was in fact the main reason behind the founding of *Geographia Polonica*? Was it a need to have a periodical that would be a national 'organ' of the IGU or perhaps a desire to record the outcomes of the bilateral meetings which began to flourish in the 1960s? Or, perhaps, this was the only possibility for Polish geographers to become known in the world, because the reach of Polish-language periodicals was very limited for obvious reasons?

⁴³ KLIMEK K., STARKEL L. (eds.), 1980. *Vertical zonation in the southern Khangai Mountains (Mongolia). Result of the Polish-Mongolian Physico-Geographical Expedition. Vol. 1.* Geographical Studies, vol. 136, Warsaw: IGIPZ PAN. STARKEL L., KOWALKOWSKI A., 1980. *Environment of the Sant valley (southern Khangai Mountains). Results of the Polish-Mongolian Physico-Geographical Expedition. Vol. 2.* Geographical Studies, vol. 137, Warsaw: IGIPZ PAN. BREYMEYER A., KLIMEK K. (eds.), 1983. *Mongolian dry steppe geosystems. A case study of Gurvan Turuu area. Vol. 3.* Geographical Studies, Special Issue, no. 2, Warsaw: IGIPZ PAN.

– Of all the reasons you have mentioned the most important to me seems to be the desire to showcase our original scholarly achievements abroad. This initial reason led to the creation of the periodical as such and then to the publication of ‘pre-congress’ and ‘post-bilateral’ issues because, indeed, bilateral meetings began to intensify greatly in the first half of the 1960s – especially meetings with the English, Americans, French, Swedes, Italians and, of course, our colleagues from socialist countries.

– The following years showed how right and important to Polish geography that decision was. A 1980 report by Chauncy Harris⁴⁴ shows that in the 1970s *Geographia Polonica* was ranked, depending on the criteria, between first and fourth among the most frequently cited geographical periodicals in the world⁴⁵. Were you aware already at that time that this periodical would make it possible for your voice to be heard in the most distant corners of the world?

– No, I personally was not aware of that, although a paper published in *Geographia Polonica* was a great honour. Undoubtedly the periodical stood out among others by virtue of the range of issues it addressed. In the 1960s almost all periodicals were associated with universities, research institutes or departmental institutes and therefore their thematic scope was very narrow. Of course, they included real gems, like *Biuletyn Peryglajny*, a leading periodical in the world devoted to this subject. Another journal worthy of note is *Studia Geomorphologica Carpatho-Balcanica*, which began to be published

in 1967 and from the very beginning was edited in the Krakow branch of our Institute. There were several issues published in the 1970s that were devoted entirely to specific symposia. These issues were also to be reckoned with internationally. Later, when the market was taken over by publishing companies like Elsevier, Springer or Wiley, everything changed and competition acquired a completely new meaning. Unfortunately, we are unable to adapt. *Biuletyn Peryglajny* has long ceased to be published and *Studia Geomorphologica Carpatho-Balcanica* is on the decline. For me one of the reasons for this state of affairs is linked to the ambitions of the various institutions to publish in English. Contributory papers are piling up in our periodicals, because young scholars send their best work to international journals in order to collect the credits they need for formal promotion.

– It is true that large publishing companies have taken control of the market and it is an open secret that seemingly empathic slogans hide purely particular interests – after all, what is at stake is a large amount of money, billions of euros every year. For a few years we have been hearing increasing comments about monopolistic practices or limited access to scholarly output which is usually publicly funded – I am thinking here about the horrendously high and hardly justifiable rates for various articles in on-line databases (about USD 40) or bundle subscriptions for institutions that have to pay for periodicals from outside their discipline. The British newspaper *The Guardian* even calls these academic publishers ‘enemies of science’⁴⁶. However, let us return to *Geographia Polonica*, with which you have been very closely associated. I mean here primarily thematic volumes, like *Geomorphological Studies of the Geomorphologic Carpathian-Balkan Commission*⁴⁷ or a whole series entitled

⁴⁴ CHAUNCY D. HARRIS (1914-2003) – American geographer, pioneer of modern urban research, very involved in scholarly collaboration with Soviet researchers; associated with the University of Chicago (1943-1984); held numerous positions in scholarly organisations and societies (including the IGU, American Geographical Society and Association of American Geographers). More: MURPHY A.B., 2004. *Chauncy D. Harris (1914-2003), geographer extraordinaire*. *Geographical Review*, vol. 94, no. 1, pp. 107-114.

⁴⁵ ŚLESZYŃSKI P., 2014. *50 years of Geographia Polonica in the light of citations*. *Geographia Polonica*, vol. 87, no. 1, pp. 143-155.

⁴⁶ TAYLOR M., 2012. *Academic publishers have become the enemies of science*. *The Guardian*, 16 January 2012, <http://www.theguardian.com/science/2012/jan/16/academic-publishers-enemies-science> [22 April 2014].

⁴⁷ KLIMASZEWSKI M. (ed.), 1966. *Geomorphological problems of Carpathians II*. *Geographia Polonica*, vol. 10.

Global Change: Polish Perspectives initiated by the Polish National Committee of the International Geosphere-Biosphere Programme (IGBP), but also special issues dedicated to you – to celebrate 50 years of your work⁴⁸ and your 80th birthday⁴⁹. Nor would it be possible not to mention that Leszek Starkel, according to Google Scholar, has the highest number of citations in the whole history of the periodical (225), with your paper on “The role of catastrophic rainfall in the shaping of the relief of the lower Himalaya” being the most frequently cited article (125 times).

– I am really pleased to hear that. Without any false modesty – I know that my papers were quite widely read, especially the paper on Darjeeling. However, I must admit that I did not expect at all that in those fifty years of the journal I would achieve a result worthy of an Ethiopian or a Kenyan running a marathon.

– Over the last few decades there has been a complete change of the way and the style of the work of the editorial team as well as practically all the stages of the editorial process. In the past you only had at your disposal letters, telegrams and limited telephone connectivity. Today, in the era of the Internet, e-mail, mobile phones, servers and digital photography, it is possible to establish contact and obtain material from the most distant corners of the world. Typescripts are a thing of the past, as is making fair copies of successive versions of articles, while correction fluids, carbon paper or technical pens have been supplanted by the computer mouse and specialist software. How do you remember those days as long-time editor-in-chief of *Studia Geomorphologica Carpatho-Balcanica*? Despite the fact that the process was infinitely more time-consuming, successive issues were published,

although from the point of view of the ‘children of the Internet’, i.e. younger generations of scholars, this may seem impossible.

– The work on the various issues simply took weeks or even months. It was really difficult to edit a journal at that time, as you have rightly noted. In addition, in *Studia Geomorphologica Carpatho-Balcanica* we had all kinds of problems with the Romanian side, especially with their articles, which they would send in French. They were very proud of these translations, although it was more Romanian-French. The only person capable of taking on this linguistic challenge was our resident Francophone, Maria Baumgart-Kotarba⁵⁰. Yet it seems that it was easier than it is now to publish issues of genuinely international status. Thanks to our truly committed overseas collaborators, we continued publishing a bibliography of geomorphological papers from regions that were of interest to us until 1992.

– Did you have any chance of publishing your articles in a renowned western journal in the 1960s and 1970s or was it a world that was virtually inaccessible?

– A good, original Polish article substantiated by specific documentation could be published in a leading journal or could even be commissioned for a collection of papers dealing with a specific topic. However, sometimes we did not dare to try if we did not know anyone on the other side. In addition, there was great pressure to publish in periodicals issued by the institutions in which we worked. For example, papers by our Lublin colleagues dealing with the eastern part of the Carpathians were shelved by Adam Malicki⁵¹,

⁴⁸ GREGORY K.J. (ed.), 2003. *Extreme events and the transformation of landscape*. Geographia Polonica, vol. 76, no. 2.

⁴⁹ RĄCZKOWSKA Z., KOTARBA A. (eds.), 2011. *Landform evolution and climate change paleogeographical approaches*. Geographia Polonica, vol. 84, Special Issue Part 1; RĄCZKOWSKA Z., KOTARBA A. (eds.), 2011. *Landform evolution, climate change and man*. Geographia Polonica, vol. 84, Special Issue Part 2.

⁵⁰ MARIA BAUMGART-KOTARBA (1941-2011) – Polish geographer; as staff member of the Institute of Geography and Spatial Organization PAS (1971-2003), she devoted all her career to the Carpathians, studying e.g. the evolution of the relief of the Beskid Mountains and the Podhale region, and the deglaciation of the Tatra Mountains. More: RĄCZKOWSKA Z., STARKEL L., 2012. *Maria Baumgart-Kotarba 1941-2011*. Przegląd Geograficzny, vol. 84, no. 1, pp. 143-145.

⁵¹ ADAM MALICKI (1907-1981) – Polish geographer and philosopher; co-founder of the Maria Curie Skłodowska University in Lublin and its geography

who would give their authors an ultimatum – you can send something to Krakow, but first you have to publish a more extensive paper in *Annales UMCS*. Another problem was that Polish papers dealt mainly with small regions, they were usually small case studies. There were very few people who were interested in regions larger than Central Europe or in relations on a global scale – both in the spatial (geography) and temporal (history) dimension. Most scholars did not know the international literature or simply were not interested. I felt it very acutely when I was appointed chair of the National Committee of the International Geosphere-Biosphere Programme. Jahn's monograph devoted to the periglacial zone⁵² or my study devoted to the palaeogeography of the Holocene⁵³ were exceptions. I took a long time preparing to tackle the issue on a global scale before I took on the coordination of international programmes⁵⁴.

– Listening to your reminiscences, I have the impression that when it comes to quantity and access to broadly defined information, within a very short period we have moved from one extreme to the other and we are not quite able to control that other extreme. There are huge numbers of periodicals and it is increasingly difficult to separate the wheat from the chaff – important, novel, groundbreaking papers get lost among general or unoriginal studies. Quantity has dominated quality, with the fight for the latter acquiring forms that are hardly acceptable. Today, many scholars, when planning their next publication, start not from formulating a hypothesis or objective of their

department where he held a number of managerial positions; active participant in the work of many scholarly societies including the Polish Geographical Society, Polish Geological Society and the Committee on Quaternary Research PAS. More: GARDZIEL Z., MORAWSKI J., 1984. *Adam Malicki 1907-1981*. *Annales Societatis Geologorum Poloniae*, vol. 54, no. 3-4, pp. 441-446.

⁵² JAHN A., 1975. *Problems of the Periglacial Zone*. Warsaw: PWN.

⁵³ STARKEL L., 1977. *Paleogeografia holocenu*. Warszawa: PWN.

⁵⁴ STARKEL L., 1989. *Global paleohydrology*. *Quaternary International*, vol. 2, pp. 25-33.

study but from browsing through the Journal Citation Reports database, the list of impact factor journals published by the Ministry of Science and Higher Education, and even the internal guidelines for employee appraisal. Freedom of creation and free and pure scholarly ideas are being replaced by cold calculation of profitability, which is an element in the fight for survival – not only of the journal on the market but also of the employee in an institution or, alternatively, the institution itself. Yet such thoughtless 'here and now' destroys Polish scholarly journals. If a periodical gets a very negative mark even once, this may mean the end because it will not 'pay' for the authors to publish anything in it. Another disastrous decision has been to denigrate the role of monographs in the parametric evaluation of geographical institutions. In my opinion a monograph is the only way to present an in-depth, multifaceted opinion of a scholar. No articles, even the ones with the highest possible scores, can replace that. One of the reasons is that their uniform form and structure mean that working on the text is more like filling in a form and not engaging in an individual act of creation. The situation we have created is that one little ten-page article in a journal from the Journal Citation Reports database is 'worth' more than several larger studies published in Polish or even more than a whole monograph, which is often the result of the work of a team comprising many scholars. Of course, I do not deny that we need to have lists of the most valuable journals in the world; what I do mind is our uncritical attitude to them. In view of these reflections, the words of Marcin Kapczyński, strategic business manager at Thomson Reuters, are of particular significance. He says that "indexes in the Web of Science database have long been an international standard in bibliometric analysis, but their application in Poland seems to be too one-sided"⁵⁵. He also points out that the Impact Factor was created in order to specify the status of a journal

⁵⁵ http://ekulczycki.pl/warsztat_badacza/lista-filadelfijska-stanowisko-thomson-reuters-i-genezaniezrozumienia [25 April 2014].

in a given category and only with time did it begin to be used in Poland to evaluate the accomplishments of academics; he adds that such a selective approach “may lead to unjustified conclusions and unfair assessment” (sic!). Even Eugene Garfield, the creator of modern bibliometrics and founder of the Philadelphia-based Institute for Scientific Information, is surprised as he watches the development and application of his work in Poland.

– Unfortunately, I fully agree with you and endorse everything you have said. This race in science is really terrifying. The problem was noted by European luminaries of science during the Academia Europaea congress that took place in 2013 in Wrocław⁵⁶. Instead of collaboration and healthy competition we have sick rivalry. What is worse, the problems we are discussing now in the context of the academic publishing market are just the tip of the iceberg. Another example is the current way of funding science (individual research grants), which, in my opinion, has led to some isolation. In the past, scientists working on the same topic would exchange their results and discuss the progress of their work on an on-going basis; now, fearing unfair competition or other unethical activity, they keep their results to themselves until they complete certain stages. Large funds are allocated to grants for PhD students, but this does not go hand in hand with any progress in science.

– I cannot agree entirely. Basic research, especially in physical geography, requires funding. Professor, you know, as very do few other people, that field work takes weeks, months, usually several seasons. A period of three years for a project is sometimes insufficient. On top of that we have laboratory analyses, purchase of source material and many other components the financing of which would be impossible from the statutory budget of a research institution alone. It is a bit easier in socio-economic geography because there is no field work on such a scale, but the necessary databases

can be very expensive. Without additional funding, i.e. individual grants or other forms of financing for young scholars, many of these studies (including PhD theses) would have never come into being. What I find surprising is the fact that what matters more in the assessment of applications is the Hirsch index of the project leader than the substantive content itself. This is why some people with very good research ideas but a low index do not even try to apply, while others, and this is an open secret, choose as their leader a colleague with a high H-index, a colleague who is, in fact, a figurehead.

– Of course, I do not suggest that all forms of individual funding should be abolished, especially given the fact that this cannot be done selectively and collective responsibility would not be the right solution. I would just like to point to the quality of papers. Today there is simply little originality in many PhD theses, research patterns known for years are repeated again and again – what is different is just the location of the research and increasingly modern packaging. The problem concerns both sub-disciplines, i.e. I am thinking equally about repetitions of the same analyses in various river valleys and in successive cities or their districts.

– It seems to me that the lower quality of some PhD theses cannot be explained only by the immaturity of young scholars. Their supervisors are responsible for that to a large extent as are various research councils approving the topics and granting degrees as well as the relevant commissions of the National Science Centre considering grant applications. What also matters a lot is the verification of progress in research work. I do not mean here publications or papers delivered during conferences, but primarily staff meetings during which direct confrontation and matter-of-fact discussions can and should have a great impact on the final form of a study or paper. The problem also concerns, to some extent, post-doctoral theses, which can be divided into immature, mature and overripe. Obviously, controversial theses come from the first and the third category. The first group represents a phenomenon reported by many institutions

⁵⁶ The 25th Anniversary Conference *European science and scholarship looking ahead – challenges of the next 25 Years*, 16-19 September, 2013, Wrocław, Poland.

in Poland over the last two years and is connected with the change in the way degrees are conferred. The sudden mobilisation and haste to obtain a degree under the old system has not always been translated into scholarly effects. The third group includes pre-retirement post-doctoral theses.

– Speaking of academic degrees, I would like to mention another phenomenon which has been worrying me for a long time and which I have seen in various academic institutions in Poland. Often doctoral theses are reviewed by people who are friends of the institution in question, who are even informal ‘resident reviewers’. What is at play here is long, institutional or personal collaboration, which ties people’s hands, as it were. They write reviews in which they excessively, emphatically even, point to all the strengths and speak very diplomatically and selectively of any shortcomings. It is, unfortunately, the same with post-doctoral degrees, which you have just mentioned. I admit that I have always tried to choose the best specialists for such tasks, asking those who were even known for being strict and very critical.

– In the context of degree projects and theses we have both mentioned discussions. Is it not true that in recent years we have not devoted enough time to a broadly defined scientific discourse? There is never enough time for questions after presentations during conferences and the discussions planned in the agendas are drastically cut, because what matters more is a coffee or a lunch break. Supplementary papers are a thing of the past now. Comments presented during discussions have virtually ceased to be published. Proceedings of theoretical-methodological symposia from the series *Podstawowe idee i koncepcje w geografii* (Basic ideas and concepts in geography) are probably one of the last places where we can find them. Polemics between authors, often more interesting than the original papers, are no longer published in most periodicals (*Przegląd Geograficzny* is a notable exception). And yet scholarly discussions have always been characteristic of our métier and should be one of its greatest assets.

– I agree, this is simply tragic. On many occasions I have raised this with the Committee on Geographical Sciences. At large symposia speakers have 10, maximum 15 minutes for their contributions. Owing to a large number of participants, discussions are often not even included in the agenda. Sometimes speakers are very pleased after delivering a poor paper, because they have not heard a single word of criticism. But when were they supposed to have heard it? This lowers the quality of our meetings again and again. You are also right to note that polemics are disappearing from journals. Of particular importance is the discussion about the methodological and philosophical foundations of our discipline. Very few people become involved in it and even fewer can be objective – regardless of which sub-discipline they represent. My own observations suggest that in recent years public criticism, no matter how relevant and problem-focused, has been perceived as being *ad personam*. It seems to me that the standards of political discussions are invading science. In the world of politics nearly all criticism is regarded as an attack on an individual or on a party.

– You have mentioned the methodological and philosophical foundations, but a large part of discussions focus on more mundane matters, i.e. institutional problems or funding of science. Very few geographers raise the subject of paradigms or theories and laws in geography, and when it comes to the foundations of our discipline, they are probably only tackled by Zbyszko Chojnicki⁵⁷. However, most issues we are now talking about constitute only a *differentia specifica* of Polish geography; our discipline comes up against much broader problems. For a long time we have been talking about a disintegration of geography, of its break-up into many sub-disciplines and

⁵⁷ ZBYSZKO CHOJNICKI (b. 1928) – Polish geographer, specialist in the development and application of mathematical-statistical methods in economic geography and in the methodology of geography and social sciences; founder of the quantitative Poznań school of geography; since 1953 associated with the Adam Mickiewicz University in Poznań, where he has held a number of managerial positions.

specialisms. According to Wiesław Maik, there are three stages in the development of our discipline⁵⁸. The now historical monodisciplinary stage was characterised by inner integrity of the discipline (despite the dualism of its subject matter); the dominant feature was extensive syntheses with an important utilitarian dimension while the object of the study was clearly defined as relations between humans and the environment approached regionally and chronologically. At some point geography began to very courageously tackle problems touching upon a variety of disciplines. We opened ourselves up with regard to philosophical-methodological assumptions, methods, terminology, language and interpretation of results. We almost relished the fact that no other science was so versatile, completely forgetting about the image of our own discipline, its coherence and identity. With time this touching upon a variety of disciplines grew, becoming more mature and independent, and we entered the multidisciplinary stage. The research field was divided into narrow segments with large syntheses becoming difficult because the various specialist sub-disciplines began to develop independently, each with their own terminologies and methods. Today geomorphology is closer to geology, pedology to chemistry, and climatology to physics than to geography. The next stage may be interdisciplinary, i.e. drawing on the past but providing a completely new integration on various levels (methodological, theoretical, problem-focused or social-institutional). On the other hand, perhaps the current stage of disintegration is just a normal phase in the evolution of most sciences?

– For me, the most important feature of geography is its broad view of the complexity of the natural environment, the relations between its components, the changeability over time and space – i.e. everything that other disciplines do not take into account. However,

we have to be aware that we cannot exhaust all the issues and that we do need interdisciplinary research. Of course, sometimes there are darker sides to this collaboration as well. Methods used in geography are much easier to master by representatives of other disciplines who use them without us. In addition, there is no bridge between applied sciences and environmental research. It seems to me that the task of socio-economic geography should be to transpose knowledge of nature with regard to the needs of agriculture, forestry or construction. This gap may be one of the reasons for the disintegration of geography. I built such a bridge many times, but I have noticed recently that there is nothing for me to link it to, to attach it to. In any case, the relations between physical-geographical sciences and socio-economic geography were already the subject of lively discussion in the 1970s and 1980s. At the 1999 Polish Geography Congress in Krakow I chaired a discussion about the condition and prospects of physical geography in Poland and said at the beginning⁵⁹ that the strengths of physical geography included for me its ability to link various phenomena in time and space. A historical approach and evolutionary awareness of the fact that the roots of the present are in the past are particularly well-developed in geomorphology, climatology and soil geography. Socio-economic geographers often fail to see transformations over time, because they are satisfied with a functional overview. The strengths of geography also include the development of specialist disciplines, which can use modern methods and can even be partners for sub-disciplines deriving from geophysical, chemical or biological sciences. On the other hand, the weaknesses of geography include, for me, the still dominant, despite the earlier remark about satellite disciplines, descriptive method used by researchers as well as the

⁵⁸ MAIK W., 2004. *Główne płaszczyzny relacji między geografią fizyczną a geografią społeczno-ekonomiczną* [in:] Z. Chojnicki (ed.), *Geografia wobec problemów teraźniejszości i przyszłości*, Poznań: Bogucki Wydawnictwo Naukowe, pp. 9-24.

⁵⁹ STARKEL L., 2000. *Wprowadzenie do dyskusji o geografii fizycznej* [in:] B. Kortus, A. Jackowski, K. Krzemień (eds.), *Nauki geograficzne w poszukiwaniu prawdy o ziemi i człowieku*. Geografia w Uniwersytecie Jagiellońskim 1849-1999, vol. 5, Kraków: Instytut Geografii UJ, pp. 159-162.

emphasis on typology and regionalisation, which are usually not a product of methodological progress. Remote sensing and GIS methods used in analyses lead to banal and obvious findings that have been known and solved for a long time. Another Achilles heel of our discipline is the above mentioned weak link between physical geography and socio-economic geography. While geomorphologists or hydrologists do have some general knowledge of e.g. land use, socio-economic geographers do not know the basic mechanisms of the circulation of matter or energy in nature. So how can we even talk about jointly tackling e.g. the management of natural resources or changes in land use? As I am formulating such theses, I draw on my long experience of collaboration in the IGBP Global Change National Committee or the Committee on Management of Mountain Regions of the Polish Academy of Sciences.

– Of course, I accept your views, Professor, though personally I try to be very careful when formulating such opinions. According to Marek Degórski, with whose analysis⁶⁰ I agree, in the past physical geographers were interested mainly in small features, while research on a regional and supraregional scale was almost exclusively idiographic (with climatology being an exception). Access to image data, obtained by means of remote sensing methods and processed by means of GIS, has significantly changed this situation and has created completely new possibilities. In the past socio-economic geographers dealt almost exclusively with large areas, while today they have also turned to small areas, ‘discovering’ the benefits of empirical methods – if not applied alternatively, then at least complementing value judgement systems. Thus, at least in the context of field studies, the two sub-disciplines have become closer rather than more distant. I think we are all responsible for the disintegration. In the 1960s Prof. Leszczycki had already begun to speak of geographical

sciences, while Prof. Kostrzewski has for years been popularising the term physical-geographical sciences. We are avoiding the name of our discipline at universities. The best example here is comprehensive physical geography, which has become geoecology, although in Carl Troll’s classic approach the latter is synonymous with landscape ecology. New subjects and specialities emerge. I remember how two-three years ago we wondered in the MA Dissertations Committee of the Polish Geographical Society what to do with dissertations submitted from fields like spatial management or geomatics. On the other hand, participants in conferences devoted to Geographic Information Systems often stress the great integrating role of our discipline, presenting it as the foundation of Earth sciences. Interestingly, such opinions are often expressed by non-geographers.

– We behave as if we were ashamed of our own discipline, as if we had a complex of sorts. And we probably do have it, since more and more Institutes of Geography add to their names: ... and Spatial Management, ... and Spatial Organization, ... and Nature Conservation, ... and Geoinformation etc. Even my Department of Geomorphology and Hydrology, which I headed for 33 years, has had its name changed to Department of Geoenvironmental Research!

– The topic of disintegration has another dimension as well, the one we have just begun to discuss – I mean here, of course, the dualism of our discipline, deeply rooted in its philosophical-methodological foundations, i.e. the division into physical geography and socio-economic geography. Contrary to what may seem to be the case, this is not a new phenomenon. According to Andrzej Lisowski, we may speak of several approaches to both geographies that have been recorded in the last 200 years⁶¹: (1) two extremely antagonistic concepts: ‘pure geography’ from the late 18th and early 19th centuries (completely leaving aside the role of man in the environment) and ‘new geography’ from

⁶⁰ DEGÓRSKI M., 2004. Geografia fizyczna a społeczno-ekonomiczna w badaniach środowiska geograficznego [in:] Z. Chojnicki (ed.), *Geografia wobec problemów teraźniejszości i przyszłości*, Poznań: Bogucki Wydawnictwo Naukowe, pp. 25-54.

⁶¹ LISOWSKI A., 2012. *O miejscu geografii społecznej w geografii i systemie nauki*. Przegląd Geograficzny, vol. 84, no. 2, pp. 171-198.

the early 20th century, described only in terms of forms of human activity, i.e. a total dichotomy and separation; (2) the classic, Kantian concept of 'total' geography as a science synthesising the knowledge of the Earth, thus considerable unity and integration; (3) dualism, i.e. the idea of geography as a collection of sub-disciplines belonging to natural or social sciences promoted by German and Russian geographers in the second half of the 19th century, i.e. non-antagonistic cooperation or loose coalition (together but separately). Geographers' opinions differ widely, of course, but it seems that in recent years the dominant calls are those for a return to unity through a reintegration of the discipline around its two basic segments. As A. Lisowski notes, however, we should speak not of a 'spirit of unity' but, rather, of a 'two-in-one' model. A return to the humanistic, Kantian understanding of geography is hardly defensible nowadays, all the more so given the fact that a well-thought-out dualism could be an asset of our discipline. As Jerzy Bański claims, and it would be hard not to agree with him, it gives us the possibility of having a comprehensive view of natural and socio-economic phenomena and of looking for links between them⁶². In addition, he points out that weakness and threat can be a source of power. As he writes, "the unity of Polish geography may stem only from common interests. They primarily include the fear of losing its identity, stemming from our weakness in comparison with other disciplines"⁶³.

- I try to draw a distinction between two things. There is the whole structure of the Earth's natural environment, a structure characterised by a varied and very complex circulation of energy and matter, which is reflected in various features of the subjects of research. This is the system in which humans live and operate. And this is the reality that surrounds us. The other thing is how we study what interests us, how we want to organise it with

regard to scientific disciplines and the whole organisation of science. The relations that exist in nature are relations that are independent of us.

- This is well described by E.O. Wilson's statement from *Consilience. The Unity of Knowledge* quoted by W. Maik: "The ongoing fragmentation of knowledge and resulting chaos in philosophy are not reflections of the real world but artifacts of scholarship."

- Yes, that is a good quote. Let us not forget that the diversity on the very surface of the Earth is huge. In addition, it has a spatial dimension and, at the same time, changes over time. What has been a weakness of many strands of geography is the fact that scholars wanted to analyse everything only with reference to spatial systems. Instead, questions posed to geographers should concern the direction of changes and our expectations for the future. As has already been mentioned, what makes our discipline superior is its ability to view the environment in a comprehensive manner, to notice relations - this is what the various sub-disciplines or specialities cannot do on their own. On top of that we have questions concerning the value of environmental components for humans, questions of whether humans are just small cogs in this machine of extremely complicated spatial-temporal links, or, perhaps, they can co-create and shape these relations⁶⁴. It seems to me that a rigid, arbitrary division of geography is misplaced. Depending on the direction, intensity or role of changes taking place in the world around us, we should turn to specific branches of science. The changing position of geography, also viewed from the United Kingdom, is noted by Kenneth J. Gregory in his book *The Changing Nature of Physical Geography*. Geography cannot be a Bible, a closed book of knowledge, but, on the contrary, it should evolve with the changing needs or challenges, together with people's priorities

⁶² BAŃSKI J., 2013. *Jaka geografia? - uwarunkowania i spojrzenie w przyszłość*. Przegląd Geograficzny, vol. 85, no. 2, pp. 291-307.

⁶³ BAŃSKI J., 2010. *Stan krytyczny polskiej geografii - krytyka stanu*. Przegląd Geograficzny, vol. 82, no. 3, pp. 319-333.

⁶⁴ STARKEŁ L., 2004. *The importance of parallel studies on past and present day environmental change*. Geographia Polonica, vol. 77, no. 2, pp. 27-34.

at a given time and place. We should leave behind fossilised structures and think instead about the need to set up problem-focused teams. Of course, this stems from the fact that knowledge itself is not something constant, unchanging over time. In order to understand some issues, we need to cooperate with related disciplines, with those satellites revolving around geography – we should not be afraid of it, should not avoid it or disown it. I learned this approach during my palaeogeographic work⁶⁵. Studies of laminated sediments in the Gościąg Lake involved representatives of at least 20 different specialities collaborating with each other. Specialists from all over Poland would go to the polar station in Hornsund and the situation was similar during the Mongolian expeditions or research in the Vistula valley. It did not matter whether scholars were from the Polish Academy of Sciences, Polish Geological Institute, Institute of Meteorology and Water Management or some university – what mattered was what they could do and what they represented. Let me mention at this point a man for whom there were no boundaries between disciplines, i.e. our colleague from Krakow, founder and long-time director of the Homerka Laboratory of Fluvial Processes in Frycowa near Nowy Sącz – Wojciech Froehlich⁶⁶. He tackled typically geophysical topics, dealt with measurements of ablation and run-off processes by means of radioactive isotopes and magnetic methods, collaborated with the Atomic Energy Agency in Vienna and presided over the IUGS Commission on Continental Erosion. More recently, before his death in 2013, he studied sediment transport in streams using acoustic methods. It turned out that the movement of particles of different sizes (silt, sand, gravel) generated sound waves of varying lengths, which could be separated and which, consequently, made it possible

to study independently the share of the various fractions in the total load carried by the stream.

– Symptomatically, what you say, Professor, tallies with the views of Witold Wilczyński, who, after all, is an avowed opponent of a scientific methodological model of science, especially an empirical model, positivist thinking or nomological explanation, i.e. all those approaches that make up the foundations of physical geography. In his opinion, objectives should be more important than methods and boundaries of the subject matter of research, all the more so given the fact that geography does not propose anything that would always and everywhere be the most important element – like money in the economy or force in physics. The most important element changes over time and differs territorially – it is what constitutes at any given moment the greatest problem of societies on the local, regional and global scale⁶⁷.

– This ‘here and now’ can be extremely varied, too. I am now working on a study on so-called clustering, i.e. groupings of extreme events which together have a much greater energy. It turns out that it depends not only on the intensity of individual rainfall events but also on the intervals between them. Accumulation has a completely different dimension when the events occur one after another during the day, and when heavy rainfall occurs several days in a row or several times a year. Sometimes the intervals are even longer. For example, in the warm, humid climate of India, the consequences of events happening once every 4-5 years do not accumulate at all, because the river bed in the meantime is stabilised, gets overgrown, and a state of equilibrium returns. One of the most important theses I have been advocating for years is as follows: we analyse the current processes in order to explain how changes came about in the past and, at the same time, we study the past in order to know

⁶⁵ GREGORY K.J., STARKEL L., BAKER V.R., 1995. *Global Continental Palaeohydrology*. Chichester: Wiley.

⁶⁶ STARKEL L., 2014. *Wojciech Froehlich (1943-2013)*. *Przegląd Geograficzny*, 3 (in press).

⁶⁷ WILCZYŃSKI W., 2003. *Autonomia i jedność geografii. Studium metodologiczne*. Łódź: Łódzkie Towarzystwo Naukowe.

where today's processes could lead. In addition, I have long believed that forecasting should be one of the most important goals of geographical sciences. I remember a very interesting discussion in the Security Council of the President of Poland devoted to the *Poland 2050* report, prepared under the auspices of the 'Poland 2000 Plus' Forecasting Committee of the Polish Academy of Sciences. It made me think about what could happen in Europe if countries with money or arms at their disposal ran out of water resources (e.g. Somalia) or mineral resources (e.g. oil in the Middle East). What if this were to be compounded by all kinds of religious or ethnic friction? After all, conflicts are there all the time, but we just do not talk about them much in Poland, unless it is about genocide on an unimaginable scale, like with Tutsi and Hutu⁶⁸.

- This stems from the fact that the Polish media are exceptionally Europe- and America-centric. Some information does get to us from Asian states, but the other continents are virtually non-existent. As you have rightly noted, many black African countries witness ethnic or religious conflicts or conflicts over resources again and again. Drought and famine in the Sahel zone cause not only the death of hundreds of thousands of people, but also migrations of populations on a huge scale, the collapse of many branches of economy, and changes in the traditional lifestyle; in addition, they are regarded as an indirect cause of numerous cases of social unrest and even great conflicts. These are examples of extremely complex cause-and-effect chains, of interdependence between humans and the environment.

- In my view the biggest problem caused by human activity is changes in the global atmospheric circulation, causing disruptions

in air and water circulation, generating temperature anomalies and, consequently, more frequent extreme events. For example, in the temperate zone air coming from the west or the east still dominates, but the share of air from the north and the south has increased significantly. Forecasting is becoming very difficult when lows begin to move in a completely different manner because the algorithms in the existing models or simulations cannot cope. The 'instability' of the weather pointed out many times in recent years is caused by the fact that our country lies between the Mediterranean zone affected by desertification and the increasingly humid Scandinavia and increasingly warm Arctic. Depending on what prevails in a given year, we have either a Mediterranean or a Scandinavian summer. This is not to say that such situations did not occur in the past⁶⁹.

- So the fluctuations we are witnessing nowadays do not have to signify the beginning of irreversible changes? Perhaps in 50-100 years stability will return again?

- Of course, that may be the case, but we have to be prepared for a worse case scenario. Moreover, we need to bear in mind that global anomalies are characterised by regionalism; qualitatively and quantitatively they can be very different. I carried out an experiment once. I discovered, in a lateral fan of a Wisłoka affluent in Podgrodzie, six metres of sediments with numerous, clearly visible layers; I could even count the successive downpours or floods on the basis of these. In the part radiocarbon dated to the older Holocene, that is a very humid period, I discovered around 100 extreme events over a period of only 500-600 years. Such a frequency is absolutely unique. In the Tatra Mountain ponds the same period was marked by debris flows and in other parts of the Carpathians

⁶⁸ STARKEL L., 2011. *Racjonalna gospodarka przestrzeni i zasobami wodnymi podstawą zrównoważonego rozwoju. Polska na tle Europy* [in:] Z. Strzelecki, A. Wierzbicki, J. Kleer (eds.), *Wizja przyszłości Polski. Studia i analizy*, Vol. 2, *Gospodarka i środowisko*, Warszawa: PAN Komitet Prognoz Polska 2000 Plus, pp. 322-337.

⁶⁹ STARKEL L., 2004. *Temporal clustering of extreme rainfall events in relief transformation*. *Journal Geological Society of India*, vol. 64, no. 4, pp. 517-523; STARKEL L., KUNDZEWICZ Z.W., 2008. *Konsekwencje zmian klimatu dla zagospodarowania przestrzennego kraju*. *Nauka*, vol. 1, pp. 85-101.

by deep landslides. Thus, we were dealing with long-lasting rainfall events (floods), short and very intense, storm-like downpours (debris flows) and rainy seasons causing very considerable ground soaking (landslides). I compared these results with material from various other regions, including Saharan Africa and Scandinavia. It turned out that there were records of very substantial changes in the same period, but changes sometimes testifying to the occurrence... of droughts. We could, therefore, speak of global anomalies in atmospheric circulation at the time, which, however, could be different in different climatic zones⁷⁰. Extreme events are usually treated as disasters, and not as common and natural phenomena. For example, in one year in the first half of the 16th century Krakow chroniclers recorded four great thaw and summer floods. In the 1840s in Galicia there were three floods, as a result of which the Galician parliament decided to have the Vistula regulated. Teaching people how the environment has changed over centuries is one of the great tasks of geography because not everything is an effect of the recent flooding for which this or that ruling party should be responsible. Reality is much, much more differentiated.

– Let us dwell on another aspect of the relations between humans and the environment, namely the issue of basic research and applied research⁷¹, that is, how to reconcile the development of ‘pure’ science with the needs of society and the economy. In the 1970s a practical, application-focused approach was the dominant one in our Institute – the

⁷⁰ STARKEL L., 1999. *8500-8000 yrs BP Humid Phase - global or regional?* Science Reports Tohoku University, 7th Ser. (Geography), vol. 49, no. 2, pp. 105-133.

⁷¹ The term ‘applied geography’ was introduced by S. Leszczycki. He suggested that a separate branch of geographical sciences be created, a branch with its own methods, scope and subject matter. The various specialities were to correspond to specific spheres of socio-economic life, i.e. those who could potentially be commissioning studies and be their target group. More: LESZCZYCKI S., 1962. *Geografia stosowana czy zastosowanie badań geograficznych dla celów praktycznych*. Przegląd Geograficzny, vol. 34, no. 1, pp. 3-23.

Academy suspended its financial support for geomorphological mapping and research into relief evolution, focusing almost exclusively on processes and classification and practical evaluation. This occurred initially under a key project dealing with the *Foundations of spatial development of the country*, and in 1976-1980 – *A typology of highland and upland ecosystems from the point of view of selecting the best forms of use*, coordinated by the Institute of Environmental Engineering of the Polish Academy of Sciences in Zabrze. All your life, Professor, you have been an advocate of combining basic and applied research that would serve people.

– Indeed, though often my fellow geomorphologists did not like such an attitude. Many of them regarded the 1970s as wasted time from the point of view of science. My affair with practice had already begun when I was a student, when I did a replacement internship at the Regional Planning Laboratory at the Regional Commission for Economic Planning in Krakow. The skills I acquired there gave rise to a number of later studies and it was probably at that time that I was bitten by the practicability bug. In the early days of the Institute of Geography of the Polish Academy of Sciences, in 1954, Leszczycki announced that there was a need for a special issue of *Przegląd Geograficzny* dedicated to the geography of agriculture. This led to my first ever article⁷², which begins with a summary of the decisions of the 8th Plenum of the Central Committee of the Polish United Workers’ Party... One year later we prepared a geomorphological and hydrological map within the framework of a spatial development plan for the Podtatrze region. Thanks to our work the plan to have a narrow gange railway on the slopes of Gubałówka was abandoned, we had mapped so many landslides and ravines along its potential route that the cost of landslide prevention was unacceptable. By that time I was in no doubt

⁷² STARKEL L., 1954. *Znaczenie mapy geomorfologicznej dla rolnictwa*. Przegląd Geograficzny, vol. 26, no. 4, pp. 198-212.

that the union of basic and applied research made a lot of sense. In the 1970s we racked our brains a lot, especially in the Szymbark Research Station, over how to demonstrate that studying processes was of practical value. The results of all this included E. Gil's doctoral thesis devoted to a typology and evaluation of the geographical environment near Szymbark. Being decidedly applicable, it was based on quantitative research into run-off and slope wash processes. Slightly before that I had compiled a study for the Committee on the Management of Mountain Regions dealing with Carpathian relief in the context of the usefulness of the area for agriculture and other forms of human activity⁷³. I am very satisfied to see that changes occurring several decades later correspond perfectly to the model I proposed in the early 1970s.

– This practical aspect is a bit linked to the image of geographers in the media and, consequently, to how society sees their work. The times when geographers were identified with great explorers of overseas lands and unknown countries ended with the disappearance of the last *terrae incognitae* from the maps. Today we are seen in the media almost only as area studies experts, authors of tourist guides, teachers, perhaps regional researchers. In this last case it is difficult to know how long it will last, because the status of regional geography is more like that of encyclopaedic knowledge than science. This is a pity because it is the best example of a chronological approach in geography, this extraordinary attribute, characteristic feature, and element of integration of our discipline elevated by Immanuel Kant to the rank of methodology. Can anything be done for geographers to be commonly recognised as scientists and experts, for a demand for our knowledge to emerge

in society, and for decision-makers to realise how important it is? According to Jerzy Parysek, geographers need to be more expansive, they should demonstrate their competence with regard to practical problem solving, they need a reorientation when it comes to problems and methodology, and they need to better get their message across⁷⁴.

– Generally, we need to focus more on analysing processes, explaining changes as well as their origins and new directions, on forecasting, and not only limiting ourselves to stating that a phenomenon exists. Our role in the media is today similar to reporting survey results. The most interesting aspect is not the numbers themselves but their analysis; why they are what they are, where regional differences come from, what has caused the changes and what their consequences can be. Speaking of the last of these, for several years Polish Humanitarian Action has been organising very deep well drilling in South Sudan and Somalia. It is true that there is virtually no alternative for the local residents, but we also need to be aware that the current assistance is just an emergency measure. This stems from the fact that the local groundwater resources, held 300-400 meters deep, are radiocarbon dated to 30,000-40,000 years BP. This means that they are not renewable and when they run out this will mean the end of all water resources in the region. More drilling will be of no use. Undoubtedly decision-making in such situations is extremely difficult, mainly in moral terms, because this is about human life. However, the task or even mission of geographers should also be to analyse such cases of environmental interactions and the consequences of human interventions. A lack of explanations is one of the reasons why Polish geographers are seen as sources of information and not serious, independent analysts.

⁷³ STARKEL L., 1972. *Charakterystyka rzeźby polskich Karpat (i jej znaczenie dla gospodarki ludzkiej)*. Problemy Zagospodarowania Ziemi Górskich, vol. 10, pp. 75-150; GIL E., STARKEL L., 1977. *Complex physico-geographical investigations and their importance for economic development of the Flysch Carpathian area*. Geographia Polonica, vol. 34, pp. 47-62.

⁷⁴ PARYSEK J., 2004. *Praktyczne funkcje polskiej geografii* [in:] Z. Chojnicki (ed.), *Geografia wobec problemów teraźniejszości i przyszłości*, Poznań: Bogucki Wydawnictwo Naukowe, pp. 119-132.

– This may also stem from the fact that we ourselves do not know how to sell what we do. No one has taught us that. For years many research institutes regarded books for the general public or school textbooks as inferior products; their role was belittled and the accomplishments of authors in these fields were disavowed. In addition, we find it difficult to compete with the spectacular nature of some other disciplines, which can clearly be seen e.g. during Science Festivals: the chemists have their experiments, the geologists have their rocks, the palaeontologists their bones and we have our... maps.

– Some of the blame goes to teaching departments which have not paid much attention to the issue of popularisation. In addition, children should already be taught how to connect various phenomena to each other during school geography classes, to see that the phenomena change over time, that they have various consequences – positive and negative. For instance, the Amazon region or the Siberian taiga of today are completely different worlds from what they were a decade or several decades ago. If little Johnny had learned how various systems functioned and interacted in the environment, grown up John would see the role of geographers in explaining these links differently.

– We began our conversation with the luminaries of Polish geography and I would like to return to them once again. Masters: you always mention Professors Klimaszewski and Środoń...

– That's right, they were the most important figures in my career, people who not only helped get me onto the right path, but also gave me a lot of freedom in pursuing my own research ideas. They offered advice, but they did not demand absolute subordination. Among persons from whom I learned true scholarly discussion was Książkiewicz. Among the younger scholars, I have to mention Kozarski, a wonderful lecturer. I cannot forget either my learned friends from other countries, people who helped me pave the way, who helped me with their advice, people like Kenneth J. Gregory and John B. Thornes from the United Kingdom,

or R. Fairbridge from New York, scholars from Russia, Germany, Holland... And, of course, colleagues from our Department and the entire Institute with whom we had open and heated debates for years.

– Is there one figure who in your opinion, deserves to be called the greatest Polish geographer after WWII?

– It is very difficult, maybe even impossible, to answer this question, because the success of Polish geography in the 1950s-1970s was a result of teamwork. In a way, this greatest geographer was a collective figure. Of course, the leadership came from Leszczycki, who, however, did not come up with any groundbreaking theory, research method or any paradigm fundamental to our discipline. When it comes to the areas closest to me, I could mention Dylik or Klimaszewski. And Jerzy Kondracki⁷⁵, who maintained physico-geographical knowledge in Poland on a high level and was like a walking encyclopaedia of geography. Without his textbooks and physico-geographical regionalisation of Poland we would have a gap that would be virtually impossible to fill. There is also a group of Polish Quaternary researchers with whom we have built up our knowledge of the past of Poland's geographical environment.

– It seems to me that the 'institution' of a Master has basically ceased to exist over the last dozen years or so. Today, we can speak of people of authority, about older colleagues to whom younger scholars refer. On the one hand, this may be a result

⁷⁵ JERZY KONDRACKI (1908-1998) – Polish geographer, author of a physical-geographical regionalisation of Poland and a typology of Poland's natural landscape; he introduced and developed a comprehensive approach to natural environment research; authority on cartography, regional geography and methodology; Chair of the Department of Physical Geography of the Institute of Geography (1951-1979), of which he was also Director (1970-1977), Head of the Laboratory of Lake Geography at the Institute of Geography PAS; Chair of the Commission on Standardisation of Geographical Names outside the Republic of Poland (1977-1985 and 1987-1997). More: RICHLING A., 2008. *Jerzy Kondracki 1908-1998*. *Prace i Studia Geograficzne*, vol. 40, pp. 101-142.

of a permanent lack of time on the part of potential Masters – leading several projects at a time, holding several positions, and many other obligations that are not conducive to taking time to educate or even shape one's potential successors. On the other hand, in the past a Master was the main and often the only source of knowledge for the pupils. Today, access to information and unlimited possibilities of maintaining personal and institutional contacts have significantly changed that. There is a much smaller distance between generations as well, which leads to considerable freedom in debating and presenting one's views. What has increased at the same time is a range of other barriers separating the younger and older generation – mainly research methods and attitudes to new technologies⁷⁶.

– It really depends. Generally, there are two types of Master. Those who have unquestionable authority and those who are first of all bosses, almost like commanders in the army. Andrzej Kostrzewski⁷⁷ is such an old-style Master. He is an authority for his closest associates and students, who respect him, follow his instructions, but at the same time can always count on his support. In addition, Kostrzewski tries to tackle as broad a range of problems as possible, like old Masters, who often were truly erudite. Today, in most cases bosses have their own field of activity, often quite narrow, and

⁷⁶ PLIT F., 2013. *O sporze pokoleniowym w polskiej geografii i jego uwarunkowaniach*. Przegląd Geograficzny, vol. 85, no. 4, pp. 655-675.

⁷⁷ ANDRZEJ KOSTRZEWSKI (b. 1939) – Polish geographer; associated since 1961 with the Adam Mickiewicz University in Poznań: Deputy Director and Director of the Institute of Quaternary Research and its successive incarnations (1981-2008), Head of the Department of Dynamic Geomorphology (1981-1999) and the Department of Geoeology and Natural Environment Monitoring (1999-2010); co-author and coordinator of the Integrated Monitoring of Natural Environment programme in Poland. More: ZWOLIŃSKI Z., 2001. *Profesor Andrzej Kostrzewski – uczonek, menadżer nauki, pedagog* [in:] A. Karczewski, Z. Zwoliński (eds.), *Funkcjonowanie geoeosystemów w zróżnicowanych warunkach morfoklimatycznych – monitoring, ochrona, edukacja*, Poznań: Stowarzyszenie Geomorfologów Polskich, pp. 19-41.

thus cannot be Masters for a larger group of people though they can sometimes inspire others. On the other hand, one should always be able to withdraw at the right moment, to realise that some bars are raised too high. You spoke about this in the context of new methods or technologies. I am fully aware at this point that I am beginning to step aside, that I am no longer in charge of projects; this is a state of affairs not to be fought against but to be accepted. I have become an adviser, perhaps sometimes an authority even, someone to whom younger scholars come for advice, though in order to build their own independent constructs.

– What advice would you, therefore, give to young scientists? What should be the most important element at the beginning of their professional career: integrity, diligence, ethics, courage in tackling new challenges?

– From the scientific point of view, the question of integrity is fundamental, it is an absolute priority. Diligence... I think that anyone who chooses to work in academia after graduation must be very committed, though it has to be noted that diligence does not equal workaholism, as is often believed today. The question of ethics is also of great importance. We should always remember our predecessors, because today we rarely deal with groundbreaking discoveries. Usually we only provide some new material which enables us to confirm once again, to modify or to extrapolate an already existing concept. The challenge is to teach people what it means to formulate a hypothesis or a theory, and what it means to prove it. Very often the conclusions are correct, but this is of no use if the evidence is insufficient. Studying and describing a single, isolated phenomenon can lead us astray. The road from a hypothesis to its confirmation or falsification is thus much longer, much more winding and bumpy than some people seem to think. However, we should neither be ashamed of nor hide the fact that we may have got lost, and certainly we should not take advantage of shortcuts. And for this we need the forgotten virtue of humility.

I have another piece of advice for the young: it is worth going back, several times even, to the same area of study, with new research methods and ideas. This enables us to verify our own concepts and, at the same time, to follow the changes that have taken place over several decades in the environment. For half a century the Wisłoka valley at the point where it leaves the Carpathians has been such an area for me.

– How did you cope with stress when speaking in public, especially in a foreign language?

– I have to admit that I did not love learning foreign languages when I was young. At some point, however, I realised that without English I would not be able to develop. When it comes to public presentations, I always made sure they were well structured, which is something I learned from Klimaszewski and Książkiewicz. Young people often commit the sin of going into the minutiae in introductory parts and presenting their results in great detail, which usually means they run out of time for conclusions. I will not deny that I suffered from nerves for a number of years and that I overcame them only when I was around forty, when I went to India for the first time. Within a period of four months I visited over 10 research centres, universities and geological service institutions. In most of them I had to speak in public, sometimes on unexpected topics and without having any chance for preparation. I remember once being taken straight from the airport to a lecture and being asked to talk about... the geography of Poland. And I had prepared only for presentations about the relief of the Carpathians. If that hand not been stressful enough, I was put in front of a wall map with Poland within its pre-war borders. These four months in India were like being thrown in at such a deep end that I had only two options – either to sink or somehow, miraculously, to swim. I survived and a breakthrough came – in fact, it was during that visit that I learned to speak English and overcame my stage fright.

– At the end of our conversation I would like to ask you about something absolutely extraordinary, i.e. about the Gold Founder's Medal, awarded since 1832 by the British Royal Geographical Society for various discoveries – initially of new lands and then of phenomena, processes or patterns in the functioning of the environment. You received it in 2004 as the second Pole⁷⁸ in history, after Paweł Edmund Strzelecki in 1846, for 'advancing international understanding of palaeohydrology and geomorphology'. Thus you joined the international elite of scholars, discoverers, explorers or popularisers of geographical knowledge, people who need no introduction: William Davis, David Livingstone, Edmund Hillary, Reinhold Messner, Jacques-Yves Cousteau or David Attenborough.

– Indeed, I can say without any false modesty that I am very proud of this medal. It came as a complete surprise. One day I got a letter announcing that such a decision had been taken and asking me if I accepted the medal, because the Royal Geographical Society wanted to give the matter over to Queen Elizabeth for ultimate approval. In the first few years this was a monetary award of fifty gold guineas, later replaced with a gold medal of equal value with a Latin inscription, *Ob terras reclusas*, i.e. for the discovery of lands. As if that had not been enough of a surprise, one year later I received an invitation from Glasgow, from the Royal Scottish Geographical Society awarding me its Centenary Medal for my pioneering Himalayan research. During the presentation I said that in the Darjeeling Himalayas I had carried out research on a plantation called Bannockburn Tea Garden. The audience broke into applause and gave me a standing ovation. Why? The name was given to the plantation by its Scottish founder and manager in the 1850s to commemorate Bannockburn, a site where

⁷⁸ A complementary award, the Patron's Medal, was given to Mieczysław Klimaszewski in 1978 for his contributions to geomorphology, especially his novel methods of relief mapping and presentation.

in 1314 the Scots managed to rout the English. For the Scots, this was like the Battle of Grunwald for the Poles.

– Professor, thank you very much for this joint, fascinating, journey in time and space.

– Thank you, and let me wish you perseverance in your common-sense approach to the world around us. And to the *Geographia Polonica* journal I would like to wish continued success in the service of Polish geography.

Professor Leszek Starkel was interviewed by Jacek Wolski.

Krakow, 31 March 2014

Polish text and translation into English have been authorised for publication.

