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Edward Marczewski—our learned friend*

We'll have to wait until Professor Marczewski comes. How else could we start a mathematical meeting at Wrocław without him? He'll come, tap at the desk to hush down the chattering youth in the back rows, and only then the lecture will start.

But alas, he himself is not going to appear today. We shall have to summon him in our memories, conjure up his appearance from the receding past, feel his presence among us, see him again in the place we had accorded to him whatever his formal prerogatives. Magic, sorcery, witchcraft? We would like to see his radiant smile flow in on a sunbeam, his sharp intelligence to put us on fire, his inexhaustible benevolence to warm us up.

We all remember him so vividly, and yet each one holds a different image of him before one's eyes. Some recall him as a youth, others as an altogether mature man, others still see him weighed down by illness, often confined to bed. Although each one of us cherishes a different memory of our Eddie, a number of common features doubtless emerge, those that make up his total personality. As long as a man lives, he is bound to change and react anew to unexpected circumstances. A synthetic image, however, will not stand forth till after death. The question then is not what he will say or do, but what he was.

Born in Warsaw in 1907, in a home both intellectual and patriotic, these qualities were certainly moulding, right from the start, his character, his love of common truth and of the Polish language he used with feeling and skill. After completing the Stefan Batory Secondary School in Warsaw where he actively participated in the Scouting movement, he entered Warsaw University in a period when the mathematical school, which had emerged in independent Poland, was shaping up, a school whose procedures and traditions he both adhered to and continued. His experience of a dynamic development of the school affected his understanding of the academic community. He always spoke touchingly about the great founders of the school: Janiszewski, Mazurkiewicz, Sierpiński, also cordially remembering those who co-operated in laying its foundations—Saks, Lindenbaum, as well as his friend S. Kierst.

* Address given shortly after Marczewski's death at a commemoration meeting of the Wrocław Branch of the Polish Mathematical Society and the Wrocław Scientific Society (see Wiadom. Mat. (2) 22 (1980), pp. 191–197). The present text was translated from the Polish by Juliusz K. Palczewski.

A miracle occurs only once. It would be rather difficult to determine why the mathematical miracle occurred in Poland's 1920's. Unfortunately, no analysis could make an effective prescription for the establishment of an academic school. However, by examining mutual relations in a group of scholars as well as those linking them to the society at large, certain principles, necessary if not altogether sufficient, can be discovered. Marczewski returned to this theme in his writings and addresses a number of times. His views on the subject are most fully revealed in his booklet [B10] and are synthesized in his *Ten commandments* published in a Polish weekly [B31].

The Second World War broke out when Marczewski was 33. He was in his prime, with over a score of items published, and a "habilitationsschrift" started at Warsaw University. At the beginning of the war he finds refuge at Lwów, whose mathematical community, centred mostly at the Jan Kazimierz University (then renamed as the Ivan Franko University), was reinforced by some refugees from other Polish cities.

After the capture of Lwów by the Germans he returns to Warsaw where he goes into hiding and works in underground education. He changes his name a number of times having eventually obtained false documents bearing the name Marczewski.

The end of the war finds him at Wrocław ([1]) where he was deported together with his wife, whom he had married when in hiding. He remained in this city until the end of his days.

He was a born Varsovian, tied to the place by both family and emotional links. His mother remained in Warsaw for many years after the war. His wife is also a Warsaw native. He loved Warsaw, enjoyed going there in person or in memory. What then were the motives of his decision to stay in Wrocław? Unlike other choices this one had been entirely voluntary for him, even when this entailed the giving up of the town of his youth.

Marczewski wrote that he was invited to Wrocław by Hitler. It was he who sent him away from Warsaw, settled in the Wrocław camp and ordered him to level the grounds for a military airfield, which later became the site of a Polish university. Such is history's bitter irony. There must have been something else, however, which perhaps unconsciously made him organize mathematics at Wrocław rather than reconstruct it in his native city.

Wrocław in the late forties recalled, in certain respects, the Warsaw of the early twenties. There was an awareness of concrete aims, a sense of mission, an eagerness for hard work for the sake of the future. There was a patriotism that could be relied upon. A similarity, though not identity of circumstances, drove us back to the beginnings of the Warsaw school, something the younger people were perhaps not aware of, but of which Marczewski was fully conscious. As early as on 10 May 1945, a day after the capitulation of Germany, did he become active in the group of researchers at Wrocław, collecting mathematical books for the future library. They became its nucleus parallel

([1]) In German called Breslau, till 1945 in Germany.

with what the Dickstein collection had been in Warsaw. Housing became the next task. And then, understandably, the staffing problem. Specialists were arriving in Wrocław from all around, mostly from centres "formerly lit up by Lwów", in Marczewski's fine phrase.

Unlike objects, people cannot make sets instantly. They must not only be brought together, but also stirred toward collective effort, shown a common purpose, interested by related subject-matter. They must also be made aware of the possibilities of honest promotion, not through communal conflict, but on the basis of their achievements whose results reach beyond the limits of their closest milieu. Although he was the youngest of the four professors, Marczewski immediately became the pivot of the Wrocław mathematical circle. More than anyone else he knew how to encourage, command, interest, but also reprimand and punish. He was creating around himself that aura of authority which made researchers even fairly removed from his interest area seek his opinion and references. He was consciously instituting a school comprising not isolated individuals, but based on a community of research passions, exchange of views, mutual assessment of results and help in solving problems without preconditions of authorship. He taught us not only mathematics, he also taught us how to co-operate in research activities, openly and with full regard to rules of conduct.

Despite his Warsaw birth he always stressed the weight and importance of traditions which had flourished at the Jan Kazimierz University of Lwów. A measure of this was his attitude towards the New Scottish Book, a sequel to the Scottish Book, a collection of open mathematical problems founded at Lwów.

In 1947 mathematical life at Wrocław blossomed profusely, even if it did not flourish. Numerous problems were arising, whilst solutions were intimated at seminars and outside them, in corridors, trams—anywhere. Only telephones were excluded, because there were none. The New Scottish Book had already been set up, and besides Steinhaus's first entry there were also Marczewski's problems. The Lwów Studia Mathematica had been reactivated but that was a specialized publication. Other needs were being felt at Wrocław, however. Despite the unavoidable specialization, in view of the scanty professorial staff, there was an aim to penetrate a number of mathematical fields, whereas current documentation of the steadily developing intellectual life of the mathematical community was lacking. The Colloquium Mathematicum was founded. Not a dusty Archive, fat Dissertations or dignified Annals, but precisely a Colloquium—mathematical converses, in a free translation. In a sense this was to have been a periodical specializing not in a specific division, such as Fundamenta Mathematicae or Studia, but in capturing mathematical activity alive. It was concerned with quick syntheses, not yet matured as monographs, with initiating research which promised more than a single author might possibly achieve, with mathematical miniatures not yet organically connected to the total body of mathematics, or simply with problems. The idea of the periodical, which we owe to Marczewski,

was truly characteristic of his understanding of scientific development, and particularly of mathematics. Nothing must be dead or isolated. Exchange of thought at each stage of research furthers progress. Young and old, people from different centres and countries should communicate with one another freely and informally. More than thirty volumes of the Colloquium were edited by Marczewski, one of the forthcoming will be dedicated to his memory ([2]).

When he became Rector of Wrocław University he looked grand in ermine and golden chain, but how little indeed these added to his dignity: distinction was always in him. He was truly overjoyed when he was elected Rector by the faculty, for initially he had been nominated by the government. He always backed the autonomy of academic life, open procedures in human collectives and dutifulness resulting from voluntary commitments. After his rectorship the University Senate resolved that "Edward Marczewski had served the University well" and presented him with a gold memorial ring. I can remember how he showed it to us with pride. I think that no distinction unconnected with Wrocław could bring him so much satisfaction. The joy was ruffled when in March 1969, not of his own will, he terminated his professorship at the same university. This was a consequence of the position he took with regard to the student protest in 1968 against restraints on freedom of expression and conscience. From this time on the only post he held was the one at the Institute of Mathematics of the Polish Academy of Sciences, where since its establishment he had been head of the Real Functions Section. The Section, though it would change its name, has always remained for us Marczewski's section. The University's honorary doctorate in 1973 partially compensated for the harm done to him. He held it dear, as much as the honorary membership accorded to him by the Wrocław Scientific Society in 1974.

I look at his photographs, at cartoons drawn by Leon Jeśmanowicz, I try to recall his image from memory and find an answer to the question: What was he really like? What were the qualities to which he owed the place he took in our lives and in our community?

There are people whose main motive is their self-interest, there are others whose horizons are broader, and who act for the sake of human groups, sometimes for the sake of humanity. But even among the latter there are those who must relate themselves to principles and make the necessary ethical conclusions, and others who carry those principles intuitively, and unconsciously impose them on the rigours of their actions, whilst in moments of reflection they bring them on to the surface of consciousness and make them intelligible to others. Marczewski was of the latter class. He could not regard his "ten commandments" concerning interhuman relations in the world of science as externally restrictive. He applied them unremittingly, even before formulation, and one could not expect him to transgress them without doing violence to his own personality.

([2]) Volume 42 (1979).

Being full of moderation, he never formally enforced the principles which guided him. He himself exemplified their effectiveness. Consequently, in so many different circumstances, we watched him waiting what he would say, and usually this became a verdict.

His moderation became proverbial. It was apparent in the way he dressed, in his gestures, his wit, sharp but never biting, but primarily in his attitudes towards others. At a mathematical meeting in 1953, when we were compiling a jocose bibliography of Polish mathematicians, the title which referred to him ran "On preserving measure in everything" (in Polish "O ciągłym zachowaniu miary"). He laughed at this together with us.

Despite that sense of moderation, however, living passions never deserted him. The Polish language was dear to him, and he was understandably unhappy about the widespread bureaucratic jargon, which made him write an article [B24] ironically entitled "Upon the terrain of our native speech or the charm of your words". He himself spoke and wrote very carefully, using the literary Polish in which he was steeped from the cradle. Nor was philosophical reflection alien to him, as evidenced by his commentary on Norwid's poem "Plato and Archytas" ([3]). He there combined mathematical erudition with a deep sense of human values.

Nobility and understanding were his distinctive characteristics; the prevailing trait, however, was his good will towards others. There are two aspects of such good will: active will towards help, and passive—absence of envy. Marczewski had them both in a measure readily perceived by anybody who mixed with him, not only by his disciples and colleagues.

I would like to add a few personal memories of him. In 1945, immediately after the war, one of the professors I knew told me: "I have just seen Szpilrajn who started organizing mathematics at Wrocław". That was how I first heard of him, a piece of information which I did not in fact associate with Professor Marczewski whom I met a year later in Wyspiański Boulevard. I thought a well-known scholar should be stately and dignified, whereas the one I spoke to, and that about my work, not his, was quite friendly and informal. About two years later, when he was on the commission of my doctoral examination, he asked me an unexpected question about the newest research results concerning the composition of functions. I was overjoyed since this concerned my own work; for my incoherent reply, however, I ought to have been simply sent away empty-handed. From then onwards I knew that he could be approached with any problem and asked for advice about anything.

I can remember how, a long time ago, Eddie—because that was how he wanted to be called—told me about his results in measure theory and ensuing problems. I was very proud, when after a few days I brought him my solution, and in this way we arrived at

([3]) See pp. 678–684.

a joint paper. I even thought my contribution was weightier, since it contained a more difficult and complicated theorem. When preparing the paper for publication, however, I understood that he had known the results when I was reporting the matter to him, but did not say a word in order to maintain my priority. Besides, I have recently noted with satisfaction that our paper is still being quoted in the literature, but solely owing to that easier theorem whose authorship I could not even partly claim.

There are many other instances of extremely useful theorems achieved by quite simple means in Professor Marczewski's papers (extension of partial orders, uniqueness results on measure on independent sets). I presume they characterize his activity more poignantly than the profounder analytical and topological results we owe to him. They reveal his penetrating mind, his understanding of the essence of mathematics, not only of its formal aspects. He also had a deep sense of the history of mathematics, and so he knew how to concentrate the efforts of others as well as his own and to choose an appropriate course of action. He could see new paths for mathematics where these had not yet been cut, and he knew how to arrange pebbles on them, apparently small, but so that they should become a footing for those aspiring further.

When he was dying, the storm from over the Baltic swept the cold leaves along the Odra strip up to his windows, as if glad that a sparkle of good will was fading. Whether it succeeded in putting it out—depends upon us, those whom he had taught, those who have attempted, however awkwardly, to imitate him, on whom it has befallen to preserve his ideals and his memory. Apart from his distinctions, perhaps in spite of them, he was a man we loved for his kindness, his noble posture, his authentic Polish spirit supported by deeds, but first and foremost because he loved us. That is why about ten years ago we, his disciples, assembled at Wrocław, so as to express, in this manner at least, our loyalty in commemorating the forty years of his research. That is why we mourn over him and will do our best to shape our disciples after him as mathematician and man, better to succeed than we ourselves have managed to.