

The Philistine, the vulgarian, the Great Sophist, the passer of base coin for true, he is all about us and, worse, he has his outposts inside us, persecuting our peace, spoiling our sight, confusing our values, making a man's self seem greater than the race and the present thing more important than the eternal. From him and his influence we find our escape by means of the Grammata into that calm world of theirs, where stridency and clamour are forgotten in the ancient stillness, and that which was in its essence material and transitory has for the most part perished, while the things of the spirit still shine like stars.

Humanities in the University is a useful reminder of the starlight.

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Leopold Infeld, *Why I Left Canada: Reflections on Science and Politics*, Lewis Pyenson, ed., Toronto, McGill-Queens University Press, 1978. 272 pp.

This is the fascinating story of a man whose experiences and accomplishments few can match. I had known Leopold well during his twelve years (1938-1950) on the staff in Applied Mathematics at the University of Toronto, and indeed wrote a short biography of him which was published by the Royal Society of Canada after his death in 1968. Interestingly enough, there has also just appeared a biography written by his son Eryk – *His Life and Scientific Work* – published in the series Polish Men of Science by the Polish Academy and Physical Society. This latter book is largely devoted to Infeld's scientific work with Max Born and others.

Why I left Canada begins with a foreword by Alfred Schild who was his student in Toronto and has been on the staff of the University of Texas in Austin. Unfortunately Schild died just before the book came out. Infeld's writings were in Polish and were translated by his wife Helen. The table of contents is as follows: *Introduction Canada and Poland, Why I left Canada, Poland, Sketches from the Past: Wladyslaw Nathanson, Bronia, Konin, Einstein, Neils Born and Einstein, Oppenheimer, and The Centenary of Max Planck.*

As a biography, these several sketches from the past provide a background which is very interesting: the story of his sister Bronia and of the school where he taught in Konin after obtaining his Ph.D. with Professor Natanson at the ancient Jagiellonian University in Krakow:

How strange Krakow was then, and how different its studies from those of today! During my whole course I did not take a single written examination; only orals, and even they were not required. They were taken only by those students who were planning to apply for scholarships or who wanted to have closer contact with their professors. Indeed, in theoretical physics where there were no assistants, no exercise hours, no seminars, this was the only way to make closer contact with a professor. During my fifth year of study I went for a half year to Berlin and brought back with me my first piece of research,

which I wanted to use for my doctor's thesis. Professor Natanson listened to me, at his home, with his usual politeness and kindness, and then told me that the work I had described to him in one sentence should be officially submitted to the dean's office. I could not imagine it possible to go to him later in order to ask what he thought of my work, or whether he had read it. Two weeks later, the janitor told me that he himself had taken the paper from Professor Natanson to Professor Zakrzewski. That aroused my interest in both their opinions. Nowadays the report on a paper is given orally, and students are informed officially whether or not it has been accepted. In Krakow I was never told officially. The janitor helped me by giving me both their secret reports to read. These were extremely warm and favourable.

It was only after several years in Konin that Infeld got an appointment at the University of Lwow. Then, in 1933, following the death of his wife Halina he obtained a Rockefeller fellowship to study at Cambridge with Max Born and at Leipzig with van der Waerden. Later, in 1936, as the prospects for a Jewish academic deteriorated in Europe, he went to Princeton to work with Einstein. It is most interesting reading how the two men reacted to each other as recorded in the two "sketches from the past". One does not often encounter such close cooperation in the search for knowledge and their mutual admiration is clear. It was not only in theoretical physics but in the whole area of "peace in the world" that they talked the same language. Infeld had met Einstein in Berlin in 1920 and he describes meeting him again in Princeton in 1936 in a beautiful paragraph which is quoted in the introduction by Lewis Pyenson.

It was at this time that Infeld looked back on his own life and wrote *Quest* – in English, his fourth language. This is a remarkable book which appeared in print shortly after he arrived in Toronto. He gave me a copy which has been much prized.

This brings me to the beginning of *Canada and Poland* in which he describes his life with J.L. Synge in the Department of Applied Mathematics. They soon became involved in work on radar wave guides. "This being the one field in which I ever had information that was at any time secret".

One day the publisher of *Quest* visited him in Toronto and suggested he write another book. Eventually *Whom the God's Love – a life of Galois*, came out in 1948. Einstein wrote to him: "I am very much excited over your book on Galois. It is a psychological masterpiece, a convincing historical picture, an expression of love for human greatness which was combined with an exceptionally honest character".

The remainder of the chapter is devoted to an account of his attempts to build a strong centre of theoretical physics in Toronto, to the story of the dropping of the atomic bombs in Japan and to his part in founding the Canadian-Soviet Friendship Society which grew out of the Nazi attack on Russia. This was the beginning of Leopold's troubles, for the break between Canada and the USSR which followed the Gouzenko affair in 1946 led to all kinds of accusations in the succeeding years.

Not long after the formation of the Peoples Republic in Poland diplomatic relations were established between Poland and Canada. I well remember the Polish Ambassador's visiting the Infelds in Toronto when Leopold was invited on a lecture tour of Polish universities. This he very much enjoyed doing in the spring of 1949, and the Polish government officials were anxious that he return.

The next chapter records the story of 1949-50. Leopold wanted to spend a year in

Warsaw and he describes how impressed he was with their struggle against enormous difficulties. That was the year when the Can-Math Congress met in Vancouver and Leopold made many interesting contacts. Back in Toronto, Winger came to give a lecture at the University and invited Infeld to Princeton for half a year to work with Einstein. This would have been even more exciting than Warsaw for a whole year! But it could not be arranged, much to Leopold's regret. However, his request for leave to go to Poland the following year seemed likely to be granted.

The remainder of the chapter makes sad reading. Infeld recalls his horror when he learned of a newspaper article which accused him of wanting to return to Poland to give to the USSR the secrets of the atomic bomb he had learned from Einstein. In spite of his denials the crisis continued to develop. Those of us in the University who knew him did what we could to help. Eventually he and his family did return to Poland, to receive a tremendous welcome. The story of his difficulties with Ontario and the Federal governments is told with restraint – that his leave for one year in Poland was eventually not granted was a bitter blow. However, in Warsaw he was able to set up his own Institute of Theoretical Physics which he saw no possibility of doing in Canada.

The last chapter entitled *Poland* describes all that happened from 1950 to his death in 1968. It is most interesting, varying from his becoming involved in the Einstein-Russell attempt to bridge the gap between East and West and his trip to China with his wife Helen. They spent a month there in 1955 and the story of their experiences takes up nine pages. Infeld attended the Pugwash Conference in Vienna in 1958 and the one in London in 1962 “where Russell delivered a short but beautiful speech and received an ovation”.

But life in Stalinist times was not easy in Poland. Although he accomplished so much, Infeld had to face the difficulties of supporting western Science in the face of Russian competition. Einstein was called an “idealist” who had copied what good ideas he had from Lobatchefski!

Perhaps the most remarkable thing about Infeld was his pertinacity; confronted with difficulties of any kind he did not lose heart. The following paragraph is worth quoting:

The whole affair is sad but it has a gay and even comic ending. The Canadian Ambassador in Poland in the late 1950s and the early 1960s was Hamilton Southam, an exceptionally intelligent man. He and his wife were extremely gracious and charming. He differed from many diplomats in that he liked Poland, became friendly with Polish intellectuals, and sent his children to Polish schools. It was due to his intervention that the national treasures at last returned to their native land. We like the ambassador very much and had good personal relations with him. He came to me once, not as an ambassador but as a private individual, to tell me that he felt I had been badly used.

This was the feeling of all his friends in Canada.

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