

An episode on Prof. K. Birkeland

EXTRACT FROM THE ESSAY ENTITLED "DEATH
OF PROFESSOR B" WRITTEN BY T. TERADA
(Translated by N. Fukushima)

Translator's foreword: Prof. T. Terada (1878-1935) was a leading scientist in physics and geophysics in Japan, and he was also a famous essayist. Among the great number of essays he wrote, there is one entitled "Death of Professor B", which was published in the magazine "Literature", in July 1935. This essay describes his communications with Professor Kristian Birkeland (1867-1917) which he had experienced 18 years before. If Prof. Terada had not written this essay, only five months before his passing away, we could not have known about Professor Birkeland's last moments in Japan. The story is so tragic that Prof. Terada was extremely reluctant to write this essay earlier. The essay begins with the following introduction.

At least once a year in the late spring or early summer, I remember a great Scandinavian physicist, Professor B, who passed away in the Hotel S in Tokyo (the exact name is Hotel Seiyoken in Ueno Park near the University of Tokyo) more than ten years ago. So many years have passed since this event that my memory has become vague. Moreover, whenever I remember, my imagination wanders unconsciously and it becomes mixed up with reality. Hence it has now become impossible for me to distinguish between the real and the imagined parts and the memory has become like a novel or a recurrent nightmare. Many times I planned to write a record of this event, but every time something made me hesitate, until today. I felt that I must write this story, even simply. So I will now try to relate the event in the form of an objective memorandum while I still remember the facts.

One morning, probably in early May, toward the end of the European war (World War I), when I happened to visit the central office of the Faculty of Science in the University of Tokyo, I found an old European, rather short and bald-headed, who was talking with Mr. S, the secretary of the Faculty of Science. Mr. S showed me the visitor's name card and asked me how to deal with the visitor's wish to see

the library of the Physics Department. The name card showed that the visitor was a famous physicist, Professor B, from the University of K (for Kristiania, i.e. Oslo) in the country N, who was well known for his investigation on the fixation of atmospheric nitrogen and his study of aurorae. Immediately I remembered his face from the past because I had visited him once in his country and had seen his famous vacuum electric discharge experiment concerning aurora. Moreover, he had invited me to his home for tea. It seemed to me that Professor B could not remember me at once.

The book which he wanted to see was the comprehensive report of the Norwegian Aurora Polar Expedition 1902-1903, with which he was directly concerned. The report was still unavailable in the Physics Department and he seemed to be very disappointed. I immediately told my colleagues of the unexpected visit of this distinguished guest from a distant country [amongst them were the Department Chairman, Prof. N (for Nagaoaka) and the old Prof. T (for Tanakadate)], and they were of course, very pleased to entertain Professor B. However, Professor B did not seem very well somehow, and he seemed to be listless when talking with his acquaintances.

A few days later I received a letter by Prof. B from a hotel in Hakone (about 100 km southwest of Tokyo), and he asked me to reserve a room in a quiet place in Tokyo. As I understood, he was suffering from insomnia. I recommended to him the small hotel annexed to the restaurant Seiyoken in Ueno Park because it would be somewhat quieter than in the city. He then settled in this hotel and the room seemed satisfactory for him.

After that he often visited me in the Physics Department, and we talked to each other about the connection between the results of my study on rapid geomagnetic variations and those of his study on the motion of charged particles in the upper atmosphere. During the repeated discussions it became clearer and clearer to me that he was somehow melancholy and very nervous. He was a fairly stout man with a pale face, not at all lively, and it seemed to me that he had some unexplainable shadow in his gray eyes.

When he visited me around noon on one very wet day, he wore a rain coat, rubber applied on thin silk, which looked like a cicada's

winy. He seemed to be very fuvorlsh, and as he talked he was continuously wiping away sweat from his bald brow. His sparse grey hairs were standing out on his head and it seemed to me as if they were steaming away from him. Only at that time did his face look beautifully cherry-coloured and his eyes were somewhat vivid. I do not know why I always have such a strong impression of this moment. I remember well when he invited me once to lunch at his Hotel S, that he was smiling as he told me some jokes which had no connection with our research work.

One day he asked me to come to his hotel because he had something to tell me which would take some of my time. I went immediately. He was lying on his bed in his pyjamas, and he apologized for his talking from his bed because he did not feel very well. Then he said that he was tired and that he would not like to use German or English, and he asked me if I would not mind if he spoke in French. I agreed although I was not confident of my French, and I asked him to speak slowly.

Then he began to talk slowly the following story, which was completely unexpected. Insofar as I remember, the outline of his story was as follows, but there is no way I can correct my mishearing and the mistakes of my memory.

Prof. B invented some device usable for military purpose during the European War, and he recommended the adoption of his idea to the country F. Since his proposal was declined by that country he went abroad to another country and made the same proposal. The government of that country heard the details of his invention, and after making some experimental tests, it finally refused his proposal. From that time he began to feel that he was always being followed about by spies from that country, although this might have been an illusion. Later, he went to the Helwan Observatory in Africa for the purposes of getting research material and escaping from the shadow of espionage. While he was observing alone the zodiacal light at midnight, he felt as if someone was trying to shoot him from the desert of complete darkness.

Then he decided to make a sea journey without specific purpose to the Orient, but he felt that a spy was already on the ship and watching him day and night. Even after landing in Japan he felt a shadow man following him, to Hakone as well. However, he felt that he was free in the present hotel thanks to my careful arrangements, but he said he was not sure for how long he could be safe.

He finished his story with the statement that he had for a long time wished to tell his story to someone, and now he felt unburdened after his talk with me.

Prof. B spoke the whole story so slowly that it took more than one hour to tell. Just after finishing his talk, he closed his eyes with his head on the pillow and became silent for a while as if he were exhausted. I left his room without disturbing him.

Next morning, as soon as I arrived at the Physics Department, I received a telephone call from the hotel S that requested me to come immediately to the hotel because of the sudden death of Prof. B.

I heard from the room servant that Prof. B had asked the servant to buy some sleeping medicine the night before. When the servant brought the medicine, Prof. B asked him to buy some more. The servant replied that it would not be good for health to have such a big amount but Prof. B insisted that he could not sleep without the medicine. So the servant went out again to buy more medicine to satisfy Prof. B's request.

Prof. Terrada's essay continues for several more pages which include the inspection by the police doctor, the funeral ceremony in Japan, and the memory of his visit to Prof. B in Norway with the "Terrella" demonstration.

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