Ewa Valde-Nowak

Alfred Rosenblatt (1880–1947)

Alfred Rosenblatt was born in Cracow on the 22nd of June 1880 as the first child of a barrister, a member of the Cracow city council and a lecturer at the Jagiellonian University, Dr. Józef Michał Rosenblatt and his wife Klara née Koppelmann. There were strong legal traditions in this long-standing Cracow family. From 1890 to 1898 A. Rosenblatt attended, as had his father before him, the St. Anna Secondary School in Cracow, where on the 7th of June 1898 he passed his school leaving certificate with merit. In the very same year, he started his degree at the Faculty of Machine Construction at the Higher Technical School in Vienna, which he finished in 1903. He was to receive a partial certificate of degree completion from that school (1/5).

In the summer term of the 1902/1903 academic year A. Rosenblatt started to study mathematics at the Philosophy Faculty of the Jagiellonian University. As an ordinary student he was to be enrolled until the end of the 1906/1907 academic year, with a year's leave of absence brought about by illness for the 1904/1905 academic year.

With the intention of gaining a Ph.D. in philosophy he submitted his work *On integer transcendental functions* in the field of the theories of analytical, integer, transcendental functions as well as complex variables. He chose astronomy from the mathematical-natural science examinations. The reviewers of the work were Professor Stanisław Zaremba and Professor Kazimierz Żorawski.

In the conclusion to his evaluation Stanisław Zaremba wrote: 'I feel that the work satisfies the conditions for the obtainment of a doctorate in philosophy.'

On the 27th of February 1908 A. Rosenblatt took his Ph.D. examination in mathematics and astronomy. The head of the commission was the dean of the Jagiellonian University's Faculty of Philosophy Prof. Władysław Natanson, and the examiners: Professors S. Zaremba, Kazimierz Żorawski and Maurycy Rudzki. The commission gave a result of outstanding. On the 28th of March 1908 the examination in philosophy was taken. The commission was headed by Prof. Natanson, and the examiners were: Professors Maurycy Straszewski and Stefan Pawlicki. The answers were considered to be sufficient to pass. In the same year A. Rosenblatt managed to enrol on a supplementary course of study in Göttingen, where he specialised in mathematics under the tutorage of Felix Klein, Dawid Hilbert and Edmund Landau. Alfred Rosenblatt's intention was to be awarded by the basics necessary to teach physics and mathematics at secondary school as subjects taught on the whole through the medium of Polish. The procedure connected with this was complicated and required not only the taking of several tests but also the writing of various works at home, the carrying out of so-called supervised tasks, as well as the taking of oral examinations. Due to his stay in Göttingen he was given an additional 3 months from the commission to write the home assignments. In June 1909, he took the teaching examination and instead of the various philosophical-didactic tests he submitted a certificate on the dissertation he had written during his philosophy seminars *Group concepts and the latest research into space*, which was evaluated as an outstanding piece of work. He was exempt from the home assignment task in mathematics for his Ph.D. dissertation. For physics he presented the current state of research into thermoelastic phenomena. The work was considered excellent and in the protocol there was written: 'the candidate's work is of an exceptionally high standard with its worth being sizeable and of importance.' On the 25th–26th of April 1910 he submitted his supervised works in mathematics and physics. He obtained a mark of 'excellent' in mathematics and 'good' in physics. The physics examination was composed of two parts. The oral examinations in mathematics and physics were set for the 4th of June 1910. He was to obtain a mark of 'excellent' in each. For physics A. Rosenblatt described 6 problems: the principle of prepared speeds, the task of catenary, entropy, the thermodynamic potential of a complex system of liquid and steam, elliptic polarization and Maxwell's equation. He solved in mathematics geometry problems, and a task on differential calculus and integral calculus.

The answers he gave in Polish and in German were very good. On the same day the examination commission, which was composed of Franciszek Czerny-Schwarzenberg, K. Żorawski and August Witkowski, announced that the examinee 'is suited to teach.'

On his return to Cracow from Göttingen, A. Rosenblatt took up work at the Jagiellonian University as a qualified assistant lecturer, and subsequently as an assistant professor. His interests were chiefly concentrated around algebraic geometry. He was under the influence of the research of French and Italian mathematicians. In July 1911, in the mathematics section of the 11th Congress of Polish Doctors and Naturalists in Cracow, A. Rosenblatt gave a paper on the progress made within general algebraic theories. His aim was to acquaint Polish academics with the area of geometry which he called 'one of the most beautiful accomplishments of the mathematical Sciences in recent years.' In the same year he published his study *Badania nad kształtami krzywych algebraicznych stopnia szóstego* [Research into the shapes of algebraic curves of the sixth degree].

In November 1912 he approached the Philosophy Faculty with the request to be allowed to take his post-doctoral degree to become a private assistant professor in Mathematics at the Jagiellonian University and submitted a written undertaking of the following wording 'I swear that if I am allowed to take my post-doctoral examination I will do nothing whatsoever which could bring any form of harm and detriment to the Jagiellonian University and its national character. I equally swear that I will defend the national Polish character of the University against any anti-national and revolutionary endeavours.'

On the 3rd of March 1913 at the sessions chamber of the Jagiellonian University's Philosophy Faculty there took place the defence of Dr. A. Rosenblatt's post-doctoral thesis in the presence of the dean, Prof. Jan Michał Rozwadowski and Professor K. Żorawski and Professor S. Zaremba. Three days later A. Rosenblatt was to give his post-doctoral lecture *O całkach periodycznych problematu trzech ciał* [On the three body issues of periodic integrals].

On the 26th of June 1913 he received *veniam legendi* at the Jagiellonian University for his post-doctoral thesis *Badania nad pewnymi klasami powierzchni algebraicznych nieregularnych i nad biracjonalnymi przekształceniami nie zmieniającymi tych powierzchni* [Research into certain classes of irregular algebraic planes and the birational transformations not altering these planes]. The reviewer, K. Żorawski, praised A. Rosenblatt for the knowledge acquired and its application. He pointed out the way in which works are edited, including the post-doctoral thesis, suggesting that it was characterised by a 'certain nervousness and haste, things which do not positively affect the clarity of the matters presented.'

Alfred Rosenblatt never served in the military. During World War I he was drafted for active service but had the draft notice annulled after intervention by the Jagiellonian University. Military action resulted in the reduction of university academic activity, and its transfer to the private plane. This also did not escape Cracow mathematicians. They would regularly meet week-

ly in the flat of Hugon Steinhaus at Karmelicka Street 9. Among those who attended were Professors S. Zaremba, K. Żorawski, J. Śleszyński, as well as Stefan Banach, Witold Wilkosz, Leon Chwistek, Władysław Ślebodziński, Włodzimierz Stożek and A. Rosenblatt, later all to become the most excellent Polish academics. During these meetings ideas were formed and friendships were forged. For A. Rosenblatt, participation in these meetings following the death of his father in 1917 constituted an intellectual and spiritual escape. They constituted the beginnings of the Cracow Mathematical Society, which was established on the 2nd of April 1919.

Rosenblatt was given lectures in Mathematics for the academic year 1919/1920, as a private assistant professor, which he was to continue in the subsequent year. On the 6th of August 1920 he is appointed an associate professor in Mathematics. From the 1st of October 1920 to the 30th of September 1935 he was employed as a lecturer at the Mathematics Seminar held at the Jagiellonian University. In the academic year 1921/1922 he was already an assistant professor with the title of associate professor and lectured in: analytical geometry in the three dimensional plane, descriptive geometry, algebraic curves, differential geometry on a plane, common differential equations, algebra and number theory, on curve and surface/plane concept, analytical functions, algebraic functions and integrals as well as the mathematical bases of quantums. From 1923 to 1926 he published three extensive academic textbooks: *Geometria analityczna*, *cz. 1* [Analytical Geometry part 1] and *Geometria analityczna*, *cz. 2: Przestrzenna* [Analytical Geometry part 2: three-dimensional], printed by the Jagiellonian University's Mathematical, *Geometria analityczna na płaszczyźnie* [Plane Analytical Geometry] which came out through the Polish Academy of Learning – in total 1730 pages. In 1931 his work *Geometria analityczna trzywymiarowa* [Three-dimensional Analytical Geometry] was printed.

A. Rosenblatt's private life was to change on the 29th of June 1924. In Wieliczka he married Paula Perl Unger. The wedding was conducted by a rabbi from Cracow, Dr. Samuel Schmelkes, entrusted to perform the service by the rabbi in Wieliczka of the 24th of June 1924. The marriage was to produce no children.

For the academic year 1930/1931 it was proposed that he take on the position of director of the Mathematics Institution and Department of Higher Mathematics at the La Plata University in Argentina. He was unable to accept due to the changes taking place within Argentina.

Alfred Rosenblatt was already at this time a well-known and respected mathematician. He had published over 100 works in various languages: Polish, German, French, Spanish, English and Italian. His interests were in the following fields of mathematics: differential, common and partial equations, variation calculus, potential theory, integrate equations, analytical functions, intensified series with actual variables, celestial mechanics, hydrodynamics,

aerodynamics, curve, surface and multi-dimensional algebraic part theory. He attended international mathematical congresses in Cambridge (1912), Rome (1926), Liège (1930) and Zurich (1932). At the congress in Bologna (1928) he headed the mathematical physics section as well as giving a general paper on algebraic geometry. He took part in the conferences of Polish mathematicians (1927), German (1929) and Romanian mathematicians (1932). In 1931 at the Institute of Liquid Mechanics at the Sorbonne he gave three papers in hydrodynamics. He gave a series of lectures in Sofia and Belgrade. His work in the field of particle equations brought him recognition – and he was awarded the academic palm of an officer *d'Instruction Publique* by the French government. He became a member of the Academic Society in Liège and the Academic Society in Athens. He was a member of the Polish Mathematical Society in Cracow, the Circolo Matematico di Palermo, Société Mathématique de France in Paris, the American Mathematical Society in New York, Deutsche Mathematiker Vereinigung and others.

He placed 28 reports in *Comptes rendus* of the Paris Academy and 11 in "Rendiconti della Reale Accademia dei Lincei" in Rome. In *Prace matematyczne* and *Wiadomości matematyczne* he published 14 works. In *Biuletyn* and *Rozprawy Polskiej Akademii Umiejętności* he submitted 13 works.

In 1932 the Council of the Jagiellonian University's Faculty of Philosophy passed a motion extending A. Rosenblatt's lectureship tenure for a period of three years. Three years later there was unanimous support for his appointment as a permanent lecturer at the Mathematical Institute; this being from the 1st of September 1935. On the 13th of September he took his vows to 'strengthen the freedom, independence and power of the Polish Republic, which I will always faithfully serve, through the powers and position entrusted me; to treat equally all citizens of the country, to adhere to the letter of the law, to fulfil conscientiously and ardently the responsibilities befitting my post, while I swear to keep official secrets.' Up until 1936, that is until his trip to Lima (Peru), he was employed as a lecturer at the Mathematics Institute of the Jagiellonian University.

For the academic year 1936/1937 he received, on the instruction of the Council of the Faculty of Philosophy, a paid scholarship from the ministry to conduct lectures at the St. Mark University in Lima, with the stipulation that the Polish Treasury would not have to cover the costs of any potential academic cover for the positions of assistant professor and lecturer. This leave of absence, as unpaid, was to be extended to him for the next academic year. His duties as lecturer were taken over for the academic year 1937/1938 by S. Zaremba. Despite the formal difficulties he received unpaid leave for the subsequent year. On the day World War II broke out he was an employee of the Jagiellonian University.

At the St. Mark University in Lima he gave lectures and seminars for students, tutored a Ph.D. student. He started work on organising the local university mathematics library. Together with Godofredo García he participated in creating a local Academy of the Natural, Pure and Physical Sciences in Lima.

Alfred Rosenblatt published over 150 works on geometry, topology, hydrodynamics, and mechanics. He became a member of the Peruvian National Committee for Geodesy and Geophysics as well as an honorary member of the editing board of the journal *Revista de Ciencias*. As a full professor he took over the running of the Department of Higher Mathematics in Lima. He assembled around his person capable successors. His most eminent pupil was José Tola Pasquel (1914–1999), later the director of the Institute of Physical and Mathematical Sciences of the St. Mark University and its vice-chancellor. A. Rosenblatt's greatest service was transferring the latest currents of European mathematics to Peruvian soil.

In his correspondence of the 12th of August 1938, directed towards the vice-chancellor of the Jagiellonian University he expressed his connection with his mother university in the following words: 'far away abroad [...] I was called there as a member of the Jagiellonian School, while the St. Mark University in Lima constantly emphasises how proud it is of the contact made with Cracow University, and my modest academic undertakings in Peru are not to be accredited to my efforts but are the achievements of the School to which I belong.'

Alfred Rosenblatt was a man of great calibre. His academic undertakings were accompanied by a passion and love for didactics and a keen eye for precision. His innovative teaching methods were to be introduced into Peruvian universities.

Alfred Rosenblatt was never again to return to Poland. After developing pneumonia he died on the 7th of July 1947 in Lima, where he was buried.

Bibliography

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