

Laura Kaufman (1889–1972)

Laura Kaufman was born in Cracow on the 16th of May 1889 into a family of clerks. Her parents were Bernard, a clerk in a mortgage (land) bank, and Anna née Byk. Laura's initial education was private. In 1902 she started to be educated at the 1st Private Higher School for Girls at Wolska Street in Cracow. In 1907 she took her school leaving certificate examinations as an extramural student at the St. Anna Boys Secondary School, obtaining a diploma with merit. In the same year she enrolled at the Philosophical Faculty of the Jagiellonian University, choosing a degree in the natural sciences. She studied enthusiastically, having developed her interest in plants and animals while still at school. A significant influence on her further development was to be had by Prof. Jan Stach, a pupil of Prof. Henryk Hoyer Junior. She keenly made use also of the works of Prof. Józef Nusbaum-Hilarowicz, a populariser of Darwin's theories, the author of university textbooks in comparative anatomy, embryology, histology and evolutionism.

Laura Kaufman highly rated the academic work of Dr. Emil Godlewski, the head of the Embryology Biology Department of the Jagiellonian University, who together with his team carried out research chiefly into the mechanics of development. Her dream of participating in such works was soon to be realised. The condition was that she gave the professor her word of honour that she would remain unmarried until she had completed her Ph.D.

She started her research work under the tutorage of Prof. E. Godlewski in 1911, and published the results in 1913 in *Archiv für Entwicklungsmechanik der Organismen* under the title "Über die Degenerationserscheinungen während der intrauterinen Entwicklung bei *Salamandra maculosa*". In this publication, considered in 1914 by the reviewers (Professors H. Hoyer and Michał Siedlecki) as suitable for a doctoral dissertation, the author tried to explain the causes of degeneration in the gemma of the spotted salamander.

She successfully defended her doctorate during World War I. The doctoral examination consisted of two oral examinations, in which she was given a distinction. The first of the two in Zoology and Biology started on the 20th of May 1916 at 5 p.m. and lasted two hours. The second a one-hour examination in Philosophy, took place on the 12th of July 1916 at 11 o'clock. The examination commission was headed by the dean of the Faculty of Philosophy Prof. Jan Michał Rozwadowski, with the examiners being: Professors H. Hoyer, M. Siedlecki, E. Godlewski, Witold Rubczyński and Władysław Heinrich. The degree of Doctor of Philosophy was awarded to her on the 15th of July 1916. Present at the ceremony were: the Rector of the Jagiellonian University Prof. K. Kostanecki, the dean Prof. J.M. Rozwadowski and her Ph.D. supervisor Prof. M. Siedlecki.

Laura Kaufman was seen by her superiors to be a most conscientious and hard-working individual. The assembling of a suitable quantity of material for research purposes was most time consuming, required immense patience and sometimes incurred additional costs. Thanks to ministerial support she was able, as a visiting scholar, to take advantage of the maritime zoological stations at Naples and Trieste. During World War I she acted as a volunteer in the Women's Military Service within the framework of the 'Strzelec' organisation as well as working as a nurse. Professor E. Godlewski had her assigned to the hospital in Cracow Pędzichów.

During the academic year 1916/1917 she worked as an assistant under Prof. S. Maziarski at the Department of Histology of the Jagiellonian University's Medical Faculty. She was officially employed from the 15th of January to the 30th of June 1917 helping during practical classes in Histology until the end of the semester. For eight months, from the 1st of October 1918 to the 31st of May 1919, she was an assistant at the Embryology-Biology Department of the Jagiellonian University's Medical Faculty. The position became available following the resignation of Dr. Henryk Raab, later the first rector and professor in Zoology at the Maria Curie-Skłodowska University in Lublin.

She was to spend the next few years at the State Scientific Institute for Rural Economy (PINGW) in Puławy. In 1919, having been invited by Prof. E. Godlewski to work with him, she started her academic research as an assistant in the Department of Animal Genetics (from 1921 the Department of

Experimental Morphology), organised and headed by Dr. Stefan Kopeć. The beginnings were difficult. The laboratories in the Marynka Palace were without gas or electricity, there was no specialist literature or apparatus. Despite that, their cooperation went very well. Stefan Kopeć was not only an excellent scientist but also a great organiser: 'He created [...] a unique institution in Poland, which – bearing in mind the good of breeding practice – never lost its purely scientific character.' In 1932 S. Kopeć left the Institute to take up a professorship at Warsaw University and Laura Kaufman took over his responsibilities. In August 1935 the Ministry of Agriculture and Agricultural Reform had no qualms in appointing her head of the Breeding Biology Unit at PINGW in Puławy.

In 1925, as a Rockefeller Foundation scholarship holder, she went to study in France. In Paris, at the Collège de France, she had the opportunity to work with Prof. Emmanuel Fauré-Fremiet, the biologist, author of numerous works on cytology, embryology, histology and experimental zoology. The effect of their cooperation was two publications on embryology: *Remarques au sujet de la courbe de décroissance annuelle de la ponte chez la Poule domestique* (1926) and *La loi de décroissance progressive du taux de la ponte chez la Poule* (1928). In Paris she met her supervisor, Prof. Siedlecki, who suggested she did her post-doctoral thesis in experimental zoology.

In 1930 L. Kaufman already had around 30 publications to her credit. In Puławy her research interests had taken shape. She undertook tests into the changes that occur in birds fed with feed devoided of vitamins (1921). She was interested in the genetic factors increasing and limiting bird growth on the example of the pigeon, as well as the dependency between body growth and cell growth (1923, 1924) as well as body growth and organ growth (1926). She analysed birds' and other animals' growth ability in various environmental conditions. She took into account the role of other factors such as hormones, the way of nourishment, the type of life and conditions of an individual. She carried out experimental research into the causes of partial albinism in the Russian rabbit (1923) and the Himalayan rabbit (1925). She developed a special method for the breeding *in vitro* of whole chicken and pigeon embryos as well as testing the differences in body size (1930). Through the time, she devoted the most attention to poultry farming. On the one hand, the achievements of Dr. L. Kaufman served concrete practical goals, for example the increasing of productivity on poultry farms, though on the other they had a theoretical study character in the field of experimental zoology.

On the 7th of June 1930 L. Kaufman, as a lecturer at PINGW in Puławy, approached the Faculty of Philology Council at the Jagiellonian University to be allowed to take a post-doctoral examination in Experimental Zoology, enumerating the study *Analiza czynników kształtujących przebieg wzrostu*

[Analysis of the factors shaping growth] as its basis. On the 21st of October 1930 the Faculty Council unanimously voted for granting her to taking her post-doctoral degree, choosing as reviewers E. Godlewski and M. Siedlecki. They also on an evaluation of the academic level of her previous achievements exempted her from the examination. It was deemed that the lecture *Zagadnienie wzrostu w świetle nowszych badań* [The question of growth in the light of recent research], given at a special sitting of the Faculty Council on Saturday the 22nd of November 1930 (at 12 noon) was sufficient and as fulfilling the requirements for a post-doctoral lecturer. The minutes of the meeting were signed by Professors Roman Dyboski, Tadeusz Garbowski, H. Hoyer, M. Siedlecki, Stefan Szuman, Helena Willman-Grabowska and Prof. E. Godlewski, who had been invited from the Medical Faculty. The chairman was the dean, Prof. R. Dyboski. The subject for the lecture had been selected from three proposed by the candidate. The other two were *Struktura podłoża dziedziczności* [The structure of the substratum of heredity] and *Metoda eksploatacji i jej zastosowanie do badań z zakresu biologii ogólnej* [The method of exploitation and its application in the research into general biology]. In the same year, the Minister of Religious Denominations and Public Education, S. Czerwiński confirmed the resolution of the Council of the Faculty of Philosophy of the 12th of December 1930, adopted by the Academic Senate four days later and on the strength of which the post-doctoral qualification was awarded with the candidate being given *veniam legendi* in Experimental Zoology.

Within the framework of her teaching at the Jagiellonian University L. Kaufman gave a cycle of lectures entitled *Zmienność istot żywych i jej znaczenie dla badań zoologii doświadczalnej* [The variability of living creatures and its significance for experimental zoology research]. She was also to lecture in the first semester of the 1932/1933 academic year. In April 1933, as a result of the workload at PINGW in Puławy, she applied to the Jagiellonian University authorities for a leave of absence, which she was to extend in subsequent years. Evidence of the high regard in which L. Kaufman was held as an academic employee is borne out by the fact that the dean of the Jagiellonian University's Faculty of Philosophy Prof. T. Lehr-Spławiński, acting in the name of the Faculty Council, sent 'with sincere backing' her letter to the Ministry of Religious Denominations and Public Education, in which she was applying for leave from the Jagiellonian University for the academic year 1936/1937.

In 1933 L. Kaufman represented Poland in Rome at the Fifth World Poultry Congress and Exhibition. On the 24th of November 1933 she was chosen as an ordinary member of the 4th Faculty of the Biological Sciences at the Warsaw Academic Society. At the time she was carrying out research into the effect of low temperatures on the development of chicken embryos. This research turned out to be particularly useful in the poultry industry during

the first stage of artificial incubation. In 1934 she published *Zasady hodowli rodowodowej kur użytkowych* [The principles for the pedigree breeding of commercial hens], the first handbook on poultry breeding in Poland. She in addition started to work closely with the Commission for Poultry Affairs of the Polish Zootechnical Society and with breeders themselves.

The years of the Second World War were especially difficult for L. Kaufman. Even though it was possible to leave Poland even as late as 1940 she did not go. From October 1939 to the 6th of January 1942 she lived and worked at the Institute in Puławy at Prof. Jadwiga Marszewska-Ziemięcka's. Although this was exceptionally dangerous due to the close proximity of Germans, who were conducting experiments at the Marynka Palace, as well as the closeness of the local Gestapo headquarters, nothing untoward happened to her there.

In 1968, following the death of Prof. Marszewska-Ziemięcka, also a graduate of the Faculty of Philosophy at the Jagiellonian University, documents were discovered in which it resulted that during the occupation she had been the secretary to the commandant of the Puławy District of the Home Army and had acted under the pseudonym of 'Stanisław'.

Laura Kaufman in moments of danger would leave Puławy and go to Warsaw or to a chicken farm at Julin near Łochów. There she was guest and she was protected by an engineer, Ms. Turowa. After the introduction by the Germans of the *Kennkarte* she hid under an adopted name, teaching children and teenagers at secret classes. She helped those who hid her by working on their farm.

In Kraszewo near Słomniki she found shelter with Irena and Mieczysław Kraszewski as Ludwika Kamińska. She stayed with them until May 1943, up until the point the Gestapo started to take an interest in the smallholding. After the war, the Kraszewski family found themselves in a difficult situation. A chance meeting with the Kraszewski daughter, Bohdana, opened up an opportunity to pay back the family for their help. Prof. B. Kraszewska-Domańska recalls the meeting in the following manner:

We embrace each other and she says: 'Are you studying?'. And I say 'No, Professor, I've just submitted all the paperwork, I'm giving up my degree as I've got no possibilities – everyone's hungry'. And she says: 'My God, I've become a professor at the newly-opened [sic!] Maria Skłodowska-Curie University in Lublin and I've got two positions for assistants. When you've got two years of your degree behind you then I'll be able to make you an assistant's deputy. Get in touch'. [...] There the whole of my career began in the professor's hands. She did not break when Michurin's ideas came in and they got rid of genetics. She taught us genetics like it should be taught. Then I wrote my Ph.D. under her [...]. (*Bohdana Maria Domańska...*)

During the war L. Kaufman was helped by individuals from various circles. She never regretted staying in Poland. Years later she would recall: 'I lived

for five years in constant danger, I experienced moments of horror but it was necessary to live amongst Polish society to appreciate its worth.'

In April 1945 L. Kaufman returned to Puławy. She immediately set about opening the laboratory and resuming the research that had been interrupted by the war. In the 18th volume of the *Journal of the State Scientific Institute of Rural Economy in Puławy* she published three of her works on genetics: *Dziedziczenie ciężaru ciała i szybkości wzrostu w krzyżówce kur zielononózek kuropatwianych i bantamków* [Body mass and growth speed inheritance in the crossing of green-legged partridge hens and bantams]; *Studia genetyczne nad kurami* [Genetic studies into hens]. 2, *Dziedziczenie barwy nóg oraz barwy upierzenia w krzyżówkach zielononózek kuropatwianych i białych leghornów* [Inheritance of leg and feather colourings in the crossing of green-legged partridge hens and white leghorns] and *Studia genetyczne nad kurami* [Genetic studies into hens]. 1, *Dziedziczenie instynktu kwoczenia* [Inheritance of the clucking instinct].

On the 15th of November 1946 the President of the National People's Council Bolesław Bierut appointed L. Kaufman an associate professor in Poultry Studies and Animal Genetics at the Agricultural Faculty of the Maria Curie-Skłodowska University in Lublin. Her weekly teaching hours were 5 hours of lectures and two hours of seminar classes. In addition within the framework of assistant professor lectures at the Faculty of Mathematics and Natural Sciences at the Jagiellonian University she was expected to teach for 10 hours a year. On the 25th of September 1954 she was presented with the title of full professor. She was one of the first professors to make up the Zootechnical Faculty of the Maria Curie-Skłodowska University.

Laura Kaufman did not neglect her genetic research on hens despite her new responsibilities. In 1950, she obtained a prize from the Ministry of Agriculture for the creation of two new Polish breeds of hen: 'Polbar' and 'Złota polska'. Together with Barbara Onoszkiewicz, Witold Głuchowski and Józef Zięba she analysed the impact of ultraviolet radiation on the life span of poultry. The genetic research whose results were published in 1954 was her attempt to change the sex of cockerels at the embryo stage. Therefore in 1956 she was called upon to travel to Great Britain and France with the goal of renewing scientific and personal contacts. The trip took place with Prof. Wacław Gajewski, the geneticist. In the same year she became a correspondent member of the Polish Academy of Sciences, becoming a full member 2 years later.

In 1966 L. Kaufman, together with Prof. Ewa Potemkowska, set about creating a Polish branch of the World Poultry Science Association (WPSA). She was the first woman to obtain the post of professor in Zootechnology. Her period as a student so affected L. Kaufman that many years later she would

appear at academic ceremonious occasions with a student pin badge of the Jagiellonian University, which was for her, as she often would explain, 'an extremely dear and valuable memento'. She lectured with great engagement and professionalism, using the most beautiful Polish. Her retirement in 1960 did not stop her academic activities. Her love of truth and objectivism comes out of many statements made about her. She was universally valued, direct, kind, considered to be a great authority; this being equally in her care for a high level of academic interaction. She had a great sense of humour and loved to tell jokes.

Professor Laura Kaufman was awarded numerous prizes of the highest ranking both from state institutions and scientific societies. In 1964, she was honoured with the title of an honorary doctorate from the Higher Agricultural School in Lublin (at present the University of Life Sciences).

She died on the 9th of August 1972 at the age of 83 in Lublin, and was buried at the cemetery on Lipowa Street in the section for the meritorious.

In Lublin she was honoured through the naming of the Didactic-Research Station for Poultry at the University of Life Sciences in her name. After her death, she was entered into the ranks of poultry experts of international fame at the 18th World Poultry Congress in Nagoya on the Japanese island of Honsiu.

Bibliography

The Jagiellonian Library Archives, catalogue number WF II 121; WF II 504; S II 619; G. Brzęk, "Prof. dr hab. Laura Kaufman – życie i twórczość", *Biuletyn Lubelskiego Towarzystwa Naukowego* 16 (1974), no. 2, Biologia, pp. 127–175; Bohdana Maria Domańska „Czarna”, http://ahm.1944.pl/Bohdana%20Maria_Domanska/5/?q=aleksander%20kami%C5%84ski [accessed: 10.01.2014]; *International Poultry Hall of Fame 1988*, http://www.wpsa.com/organization/iphf_members/1988_iphf.html [accessed: 7.01.2014]; *International Review of Poultry Science* 6 (1933), <http://naldc.nal.usda.gov/download/CAT40000898/PDF> [accessed: 6.01.2014]; "Laura Kaufman, Łódź" [sic!], [in:] *Ten jest z ojczyzny mojej*, ed. W. Bartoszewski and Z. Lewinówna, Kraków 1969, pp. 630–632; L. Kaufman, *Wspomnienia pośmiertne: Stefan Kopeć (1888–1941)*, http://mazowsze.hist.pl/35/Rocznik_Towarzystwa_Naukowego_Warszawskiego/795/1938/27254/ [accessed: 10.01.2014]; W. Maliszewska, *Jadwiga Marszewska-Ziemięcka (1891–1968)*, http://www.pan-ol.lublin.pl/biul_2/marszewska.htm [accessed: 7.01.2014]; A. Paszewski, *Wspomnienie pośmiertne. Prof. dr hab. Waław Gajewski 28 II 1911–12 XII 1997*, http://www.man.poznan.pl/~ptgen/images/stories/files/biuletyn/4_1997.pdf [accessed: 6.01.2014]; *Sprawozdanie z czynności administracyjnych [Towarzystwa Naukowego Warszawskiego za rok 1934]*, http://mazowsze.hist.pl/35/Rocznik_Towarzystwa_Naukowego_Warszawskiego/724/1934/25832/ [accessed: 6.01.2014].