Lech Polkowski

HELENA RASIOWA

Helena Rasiowa was born in Vienna on June 20, 1917, in what was by then still the Austro-Hungary. Her father was a railway engineer. As an ardent Polish patriot, in 1918 when Poland regained independence, he with the family relocated to Warsaw where he filled an important post in the Polish railway administration. Young Helena attended a pension, as the school for girls was called by then, which gave a good education. In addition, She learned music. After the school, She studied for one semester business management but decided to study mathematics at Warsaw University. She entered the university in 1938 but of course the studies were interrupted after one year by the outbreak of war started by German invasion of Poland. Warsaw experienced very soon air bombardments as well as heavy bombardment from the field, and after a three weeks lasting resistance surrendered on September 26, 1939, after that the long night of German occupation begun. Poles were rid of any legal forms of education according to the plan of making them into a nation of slaves, and, worse even, the German-Russian plan AB was aimed at eradication of Polish intelligentsia in order to deprive Poland of the elite which could lead the resistance. This plan was ruthlessly realized, and, University professors and school profesors organized clandestine courses covering school and University programs of education in diverse fields. Helena Rasiowa attended lectures by mathematics professors and she started on her master thesis under supervision of Jan Łukasiewicz. However, fortune was for her unfavorable as Jan Łukasiewicz facing the oncoming to Poland of Red Army, used his connections with German logicians and left Poland.

In August 1, 1944, the Warsaw Uprising begun: the situation on the eastern front was decided, German armies were quickly evacuating to the west before attacking them Red Army which in January 1944 crossed the before-war eastern border of Poland and advanced towards Warsaw. Escaping Germans leaving also Warsaw prompted Polish Underground Army to the uprising which unfortunately lasted for two months and caused death of 200 000 civilians and destruction of large part of Warsaw. Helena Rasiowa survived the heavy fights at the cost of having the house burned down, and she with her mother buried for a time in the cellar of the house under the pile of bricks. Her thesis was burned as well. She underwent the task of restoring it under supervision of Boleslaw Sobociński, the close collaborator of Stanisław Leśniewski. However, Sobociński was the leader of the Polish Organization, a part of the National Armed Forces, a clandestine organization who fought Germans and after liberation from Germans was fighting against Russians and their Polish collaborators in security forces. As the situation deteriorated, and many members of the organization were arrested and murdered, Sobociński had to escape Poland and landed at Notre Dame University in Indiana. In 1945, Andrzej Mostowski brought Helena Rasiowa to University where she finished her MSc Thesis. Helena Rasiowa became a PhD in 1950 on the basis of a thesis on algebraic models of logic supervised by professor Andrzej Mostowski and in 1967 She became a titular professor. Her research results encompass a wide specter of algebraic models of logics and one cannot omit the famous monograph written with professor Roman Sikorski `The Mathematics of Metamathematics' and the well-known lemma of Rasiowa and Sikorski, generalized by Cohen-Vopenka to solve the continuum hypothesis problem.

Helena Rasiowa very early realized the shift in logic research due to emergence of computer science and She invited Professor Zdzisław Pawlak to supervise master and PhD theses in this new area. In 1977 she founded the journal `Fundamenta Informaticae' of which she was the Editor-in-Chief until her death. She was the Head of Scientific Counsel of the Institute of Computer Science PAS and literally all theoretical computer scientist at Warsaw University were her students.

Helena Rasiowa died on August 9, 1994. The author of this is the last whom Professor Helena Rasiowa took in the palm of her hand.

In 1992, after the return from Ohio University, the author was happy to meet Professor Helena Rasiowa who directed him to Professor Zdzisław Pawlak working with a group of researchers on the theory of rough sets, a new by then idea in knowledge representation, the group included Andrzej Skowron and Cecylia Rauszer. The author was able to construct a topological theory of rough set spaces, answering a question from Professor Pawlak. This made his habilitation.

Then author is happy remembering that Professor Rasiowa was able to see the first common work with Andrzej Skowron on the idea of rough mereology (ISMIS'94) and the author is convinced that by authorizing with Andrzej Skowron, the successor of Professor Rasiowa on the chair of Logic, 25 research papers, he fulfilled the debt of gratitude for the help rendered him.

The last two years 1993-4 witnesses the slowly developing final illness of Professor Rasiowa and the author was able to help with some problems especially when in the house at Wiejska street water pipes were exchanged which caused of course a great amount of noise and dust and after that a vast amount of cleaning. Nice moments were when after some work a dinner was served by Mrs Wanda, the lady helper to Professor. Then, Professor Rasiowa remembered some events related to the past. One of them concerned Her assistance years when young communist activists demanded from Professor Mazur lecturing on Analysis that He should change the textbook. Professor Mazur gave up on giving the course and it was given to Helena Rasiowa. She remembered pre-war balls at Military Academy with elegant eleves.

Professor Rasiowa was a unique personality merging the highest intellect with joie de vivre – joy of travelling, lecturing at various universities, meeting people, helping them.

Meeting Her left a lasting deep impression.