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Adventures of a mathematician, by S. M. Ulam, Charles Scribner's Sons, New York, 1976, xi + 317 pp., \$14.95.

I. Ulam is a magic name in modern mathematics. One thinks of Leonardo's letter to the Duke of Milan:

“Most Illustrious Lord;

... Item: In case of need I will make big guns, mortars, and light ordnance of fine and useful forms, out of the common type.

Item: I can carry out sculpture in marble, bronze, or clay, and also I can do in painting whatever may be done, as well as any other, be he who he may”

And so he could.

In Ulam's writing, as in Leonardo's, scarcely a mention of mother and father. At eleven Ulam began to be known as a bright child who understood the special theory of relativity. He was an A student but did not study much, active in sports, played bridge, poker, and chess. At 15 he absorbed the calculus, number theory, and set theory. At 18, when he matriculated from gymnasium, the choice of profession presented difficulties. His father wanted him to join his successful law practice, while Ulam longed for a university career. But university positions in Poland were almost impossible to obtain if one's family, however wealthy and culturally assimilated, had a Jewish background. As a compromise, Ulam entered Lwów, Polytechnic Institute to study engineering.

From the first, mathematics took complete possession of him. Kuratowski quickly recognized the young student's gifts and took special pains with him. The names of Mazur, Lomnicki, Borsuk, Kacmarz, Nikliborc, Tarski, Schauder, Averbach, Schreier, Steinhaus, and above all Banach dominated a euphoric period of feverish activity. At 23 Ulam was sufficiently well known to be an invited speaker at the Zürich congress. Meeting foreign mathematicians for the first time, he found them nervous and given to facial twitches, or short and old, like Hilbert; certainly less impressive than his fellow Poles. Returning to Lwów, Ulam wrote a master's thesis which among other things outlined what is now category theory, and at 24 won his doctorate with a thesis in measure theory. But still there were no prospects of a university position for him in Poland.