ABRAHAM ROBINSON, 1918 – 1974

BY ANGUS J. MACINTYRE

1. Abraham Robinson died in New Haven on April 11, 1974, some six months after the diagnosis of an incurable cancer of the pancreas. In the fall of 1973 he was vigorously and enthusiastically involved at Yale in joint work with Peter Roquette on a new model-theoretic approach to diophantine problems. He finished a draft of this in November, shortly before he underwent surgery. He spoke of his satisfaction in having finished this work, and he bore with unforgettable dignity the loss of his strength and the fading of his bright plans. He was supported until the end by Reneé Robinson, who had shared with him since 1944 a life given to science and art.

There is common consent that Robinson was one of the greatest of mathematical logicians, and Gödel has stressed that Robinson more than any other brought logic closer to mathematics as traditionally understood. His early work on metamathematics of algebra undoubtedly guided Ax and Kochen to the solution of the Artin Conjecture. One can reasonably hope that his memory will be further honored by future applications of his penetrating ideas.

Robinson was a gentleman, unfailingly courteous, with inexhaustible enthusiasm. He took modest pleasure in his many honors. He was much respected for his willingness to listen, and for the sincerity of his advice.

As far as I know, nothing in mathematics was alien to him. Certainly his work in logic reveals an amazing store of general mathematical knowledge. He was always on the lookout for new areas where logic might contribute, and his insights here were very fine. I have a fond memory of the last colloquium he attended at Yale. Lipman Bers had spoken on a method of compactification in the theory of Riemann surfaces. As we walked back to our offices afterwards, Abby told me with a little smile that he would be looking at that more closely in the light of his general method for compactification. At that time he was thinking about nonstandard geometry, so this could have been interesting. But he got no chance to think this matter through.

My intention here is to survey Robinson's life as a logician. Unfortunately, this involves the neglect of a considerable part of his research until the mid 1950's. For one of the strangest aspects of Robinson's life is his dual career as logician and applied mathematician. The distance between these disciplines makes an informed survey by one individual almost impossible. Fortunately, Professor Alex Young, in an obituary for the London Mathematical Society [Y], has provided a fascinating account of the applied mathematician. For this reason, I will make only a few remarks about Robinson the applied mathematician, in the course of an introductory sketch of his entire life.