



HYMAN KESTELMAN 1908-1983

OBITUARY

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Members of the Society will have learned with sadness of the death on 20 January 1983 of Mr Hyman Kestelman, member of the Society for 39 years.

Kes was born in London on 18 March 1908. His father was Ukrainian and his mother was Polish. He was educated at the Central Foundation Boys School in Cowper Street. As most of the school's records were destroyed during the war, little is known of Kes's performance at school although it is known that he was an enthusiast for Shakespeare at the Old Vic and for Opera at Sadlers Wells.

At 16 he left school and got a job and continued his education at evening classes at Birkbeck College. In 1928 he achieved his Intermediate Science at Birkbeck College and won a four year teaching scholarship with grant (3 years University plus 1 year training college) and went to University College London. In 1930 he was awarded a 1st Class Honours Degree in mathematics and given a demonstratorship at UCL. Whilst studying for his M.Sc. 1930–32 he was encouraged by Professor Jeffery to take the year's teacher training at London Day Training College 1930–31. Nevertheless he won the Rose Morrison medal 1930/31 and was appointed to a lectureship in mathematics at UCL in 1931. During this period he also met his future wife 'Shep' who was an undergraduate in mathematics and they were married in August 1936. It was during the period 1931–37 that he wrote *Modern theories of integration*, first in collaboration with Professor Estermann, and subsequently alone but with Estermann's very generous encouragement.

Kes did not go to Bangor when the department was evacuated during the war. He tried to obtain scientific work to assist the war effort but was turned down partly because of his foreign parentage and partly lack of requisite knowledge. Professor G. B. Jeffery left Kes in London as the London representative to deal with mathematical students requiring help there and he was subsequently seconded to Birkbeck where he lectured in all branches of mathematics, some of which he had to learn up first. Owing to nightly air raids, lectures were held during the day on Saturdays and Sundays. His two sons Philip and Bernard were born in 1941 and 1943 respectively.

In 1949 he was made a Reader in Mathematics and in 1951 he became Tutor, a post which he enjoyed for 19 years. Both H. Davenport and C. A. Rogers were immensely grateful for the enormous amount of work that he did for the department during this period. This involved organising examinations and admissions as well as carrying out the normal welfare duties of a tutor! He was a true father figure to hundreds of students who passed through the department. These included many of the weaker students who were able, by his encouragement, to make valuable contributions to the mathematical life of society but who would, without doubt, have been discouraged into failures without his sympathy and understanding. Despite this arduous task he managed to find the time to be the Chairman of the Chamber Music Society, President of the Maths and Physics Soc., and Auditor for the Common Room and for the AUT at University College. In 1973 the College recognised his unique contributions by making him a Fellow.

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Within the department his skills as a lecturer and his breadth of mathematical knowledge were legendary. His book with Sir Harrie Massey on *Ancillary mathematics* was the standard work for physics students and others throughout the College.

Kes leaves a galaxy of former students who are well aware of their debts to him. These include two Fields Medallists, six Fellows of the Royal Society and many professors of mathematics. His teaching ability ranged from interesting and encouraging first year students who had to study mathematics although it was not their primary interest, to stimulating and helping the most eminent visiting professor. One of his outstanding qualities was his willingness to give generously of his time and effort in assisting with mathematical problems that arose in other sciences such as statistics, physics and biometry.

From 1975 he enjoyed a very active retirement. As an Honorary Research Fellow he came into College regularly to discuss mathematics and continued to contribute to several journals. A further outlet for his energies was his election in 1980 as the Honorary Librarian of the London Mathematical Society.

H. Kestelman wrote a considerable number of research articles. They are mainly short but are always interesting. He only studied problems that had caught his own interest or had been brought to his attention by his colleagues. He undoubtedly had the necessary mathematical power to have made greater contributions to mathematical research, but he did not choose to do so, perhaps because he was, by nature, co-operative rather than competitive. Reviewing *Modern theories of integration*, Saks wrote in *Zentralblatt*, "Grâce à la clarté et au caractère élémentaire de l'exposé, le livre constitue bien un véritable manuel moderne de la théorie de l'intégrale". Seldom can such a description seem so appropriate after 45 years.

Ancillary mathematics, written jointly with Sir Harrie Massey, was the result of a very close collaboration that Sir Harrie recalled with pleasure. Despite the very different attitudes of the two authors, the book reads as a coherent whole. Massey seems to have given Kestelman a free hand to include anything he wished, provided it appeared in small print, with the result that a great deal of material of interest to honours students appears in this book, to the great benefit of both honours and ancillary students.

Kes will be remembered with great affection by past and present colleagues and by many generations of past students. We shall miss him greatly.

Publications

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2. *Modern theories of integration* (Oxford, 1937; revised and enlarged edition, Dover, 1961).
3. 'An integral connected with Waring's problem', *J. London Math. Soc.*, 12 (1937), 232–240.
4. (with L. S. Bosanquet) 'The absolute convergence of series of integrals', *Proc. London Math. Soc.*, 45 (1939), 88–97.
5. 'Integral properties of non-measurable functions', *J. London Math. Soc.*, 21 (1946), 283–290.
6. 'On the functional equations $f(x+y) = f(x)+f(y)$ ', *Fund. Math.*, 34 (1946), 144–147.
7. 'The convergent sequences belonging to a set', *J. London Math. Soc.*, 22 (1947), 130–136.
8. (with C. A. B. Smith) 'On the distances between elements of a subset of a group', *J. London Math. Soc.*, 24 (1949), 131–135.
9. 'Automorphisms of the field of complex numbers', *Proc. London Math. Soc.* (2), 53 (1951), 1–12.
10. 'The fundamental equations of factor analysis', *British J. Psychol. Stat. Sect.*, 5 (1952), 1–6.
11. 'Finite rotations of a rigid body', *Math. Gaz.*, 39 (1953), 278–279.
12. 'Riemann equivalence of functions', *Mathematika*, 2 (1955), 97–104.
13. 'Measurable almost periodic functions', *Mathematika*, 3 (1956), 140–143.
14. (with H. S. W. Massey) *Ancillary mathematics* (Pitman, 1959; enlarged second edition, 1964).

15. 'Change of variable in Riemann integration', *Math. Gaz.*, 45 (1961), 17–23.
16. 'Anticommuting linear transforms', *Canad. J. Math.*, 13 (1961), 614–624.
17. (with P. Erdős and C. A. Rogers) 'An intersection property of sets with positive measures', *Colloq. Math.*, 11 (1963), 75–80.
18. 'Self-centred sets', *Canad. J. Math.*, 18 (1966), 974–980.
19. 'Wallpaper patterns', *Exploring university mathematics 2* (Ed. N. J. Hardiman, Pergamon, Oxford, 1968).
20. 'Riemann integration of limit functions', *Amer. Math. Monthly*, 77 (1970), 182–187.
21. 'Mappings with non-vanishing Jacobian', *Amer. Math. Monthly*, 78 (1971), 662–663.

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