Ruse, Harold Stanley

(1905–1974)

- J. Clifford Jones

Ruse, Harold Stanley (1905–1974), mathematician, was born on 12 February 1905 at 12 North Street, St Leonards-on-Sea, Sussex, the youngest of three children of Frederick (Fred) Ruse (1872–1950), greengrocer, and his wife, Lydia, *née* Backshall (1878–1954). He was educated at Hastings Grammar School, where he overlapped with Harry Eméleus, later to become professor of inorganic chemistry at Cambridge. Ruse went on to study mathematics at Jesus College, Oxford, taking a first in mathematical moderations in 1925 and graduating with first-class honours in 1927.

His initial plan had been to remain at Oxford for postgraduate work, but in the event he was offered the Bruce of Grangehill research scholarship at the University of Edinburgh and accepted it. He characteristically spent the summer vacation after graduation reading up on the topic he had been assigned at Edinburgh. The scholarship was for one year, after which he was made a lecturer there. This was undoubtedly his most productive time. He won the Senior Mathematical Prize at Oxford in 1929, was elected a fellow of the Royal Society of Edinburgh (an honour which he was to cherish throughout his lifetime) in 1931, and obtained his Edinburgh DSc in 1933. He was involved with the Edinburgh Mathematical Society and lived at Cowan House, one of the university's halls of residence.

It was just as Ruse went to Edinburgh that electron spin was discovered, and further understanding of it had to await developments in mathematics. To such developments Ruse contributed during his Edinburgh years. He was ultimately to occupy a chair of pure mathematics, but his earliest and most important work was very much at the frontier with physics, with articles on general relativity, tensor calculus, and space-time configurations, and in 1937 he received the gold medal of the Royal Society of Edinburgh for a paper on quantum mechanics. In the same year he took up the chair of mathematics at University College, Southampton. It is easy to understand why the move was attractive to him. Apart from the obvious point of promotion he was living much closer to his family in Hastings. Those reviewing his career at later stages of his life were of the view that Southampton had not been the right move and that headship of department responsibilities had come too early. Moreover, during the Second World War Southampton was very vulnerable from the air. Ruse's way of life was simple, probably a reflection of his humble background, and the only time he ever owned a motorized vehicle was during his early period at Southampton. The principal of University College had a practice of making a gift of an 'autocycle'—a very basic form of motorcycle—to every newly appointed professor. Ruse accepted the gift with some reluctance, and it is probable that by the time he had become proficient at using it fuel rationing restricted his doing so.

In 1946 Ruse moved to the chair of pure mathematics at the University of Leeds. (His successor at Southampton, Evan (Ianto) Davies, was the only professor of mathematics in England not to have graduated from Oxford or Cambridge). On his arrival a chance encounter occurred which was to have a major influence on his life. He was introduced to the Anglican Community of the Resurrection at Mirfield (the 'Mirfield fathers'), who ran a hostel for students at the University of Leeds. He lived at the hostel for a short time. He would probably have liked to have made it his long-term home but this was not practicable, not least because the hostel was locked up and unoccupied during the vacations. Even so he would, during his entire time at Leeds, visit it at least weekly during term and have his Sunday evening meal there. His Christian faith was central to his life and the company of the Community members and the students no doubt helped to alleviate the loneliness which was the lot of a single man.

At Southampton, Ruse's time was spent keeping a department running under wartime conditions. At Leeds, where he was head of department as well as professor, it was spent overseeing expansion. In 1968 the Department of Mathematics was, under Ruse's organization, replaced by a School of Mathematics comprising four departments: pure mathematics, applied mathematics, statistics, and mathematics for applied science. He was the first chairman of the newly constituted school. It was in the 1960s that courses in 'electronic computing' began, and these became another of Ruse's responsibilities at Leeds. His workload was immense, and consequently the flow of his publications diminished, although he did publish a handful of papers on Riemannian geometry, and co-authored a book, with A. G. Walker and T. J. Willmore, *Harmonic Spaces* (1962). His preoccupation with administration caused him considerable sadness and frustration, and he hoped to reinflate his mathematical research after his retirement in 1970. That was made difficult by his having surgery for cataracts which left him with tunnel vision, although he did publish one article in 1972 in a new journal, *Tensor: New Series*, of which he was himself an editor, and he continued to attend seminars and conferences in Leeds and elsewhere, and to swim, until very near the end of his life.

Ruse lived latterly at 11 Dyers Court, North Hill Road, Leeds, and died at the Leeds General Infirmary on 20 October 1974 after a stroke. How highly regarded he was is clear from the eulogy at his funeral given by his colleague T. G. Cowling and from the published appreciations and obituaries. *The Times* ran an obituary written by Alfred Goldie, who did full justice both to Ruse's 'expansive and brilliant' mathematical research in his earlier career and to his later role as an academic leader and policy-maker.

Sources

- *The Times* (9 Nov 1974)
- E. M. Patterson, 'Harold Stanley Ruse', *Bulletin of the London Mathematical Society*, 8 (1976), 203–10
- A. W. Goldie, *Royal Society of Edinburgh Yearbook* (1975), 47–8
- J. J. O'Connor and E. F. Robertson, MacTutor archive, U. St Andr., www-history.mcs.st-andrews.ac.uk/Biographies/Ruse.html, accessed 27 Nov 2017
- *WWW*
- personal knowledge (2018)
- private information (2018) [P. Gray]
- b. cert.
- d. cert.

Likenesses

- photograph, MacTutor History of Mathematics archive, U. St Andr., www-history.mcs.st-andrews.ac.uk/Posters2/Ruse.html (accessed 30 Nov 2017)

Wealth at Death

£26,665: probate, 13 Dec 1974, *CGPLA Eng. & Wales*