Walter Douglas Munn

Douglas Munn (he seldom aired his other Christian name) was born in Troon and educated at Marr College. His father, who died when Douglas was 16, worked on the railways; his mother was a teacher. Both parents were talented painters, in watercolours and oils. In Glasgow University his M.A. with First Class Honours in Mathematics and Natural Philosophy was especially remarkable, for his choice of ‘outside’ subjects were Music and English. By then he was an accomplished pianist, and had even composed some pieces for piano.

There is a long tradition that talented young Scots migrate southwards, usually to one or other of the ancient universities, and it was to Cambridge that Douglas arrived in 1951. He bypassed the convention that Scots graduates were encouraged to begin by studying for Parts 2 and 3 of the Tripos, and immediately began some orignal work. His PhD was awarded in 1955.

There was another hurdle to conquer, for those were the days of National Service. Fortunately, for Douglas, there was no question of two years’ square-bashing at Catterick: the powers that be sent him to GCHQ in Cheltenham. What he did there we are not allowed even to speculate, but he enjoyed the experience, and when he returned to academic life he did from time to time (mostly when facing a huge load of examination papers to mark) comment that he might have been better to stay there. It is clear that he would have been welcomed back, for in the event he remained a consultant for several years. But return he did in 1956, to Glasgow University, as a junior member of the mathematics department, and his very substantial output of mathematical research began.

While Douglas never strayed far from the theory of semigroups, it is possible to discern certain phases in his mathematical output. His original interest, arising out of his PhD work, was in semigroup algebras and matrix representations. By the mid sixties he was concerned primarily with inverse and regular semigroups. The explicit description of the minimum group congruence on an inverse semigroup, and what is now called the Munn semigroup of a semilattice, opened a complete new chapter in the study of inverse semigroups. In 1974 he published his hugely influential paper on free inverse semigroups, laying the foundations of a graphical approach that is now part of the essential armoury of the modern practitioner. Throughout the seventies he continued to make crucial contributions to the understanding of regular and inverse semigroups.

His discovery of Passman’s books on infinite group rings brought about another change in the main thrust of his work, and in the eighties and nineties, while still writing the occasional paper on ‘pure’ semigroup theory, he returned to the study of semigroup algebras, publishing a series of remarkable papers linking semigroup properties to ring-theoretic properties to their algebras. All these papers were worked on with draft after draft: everything Douglas wrote for publication was a masterpiece of careful exposition. One lady mathematician, who perhaps had better remain anonymous, declared that she had fallen in love with Professor Munn long before she met him, just by reading his papers!

Ten years of creative work at Glasgow did not go unnoticed, and in 1966 he was appointed to the chair of mathematics in the fledgling University of Stirling. I followed him a year later, and for Session 1967–68 we were the mathematics department. We were the music department as well: no provision had been made for music, and the two of us had to take action. Douglas, leading from the front, gave great encouragement to talented students in organising chamber music; I conducted a choir – with Douglas as one of my basses.

In 1973 Douglas returned to Glasgow to the Thomas Muir Chair of Mathematics, a post he held with distinction until his retirement. He received many invitations to speak at the international conference merry-go-round, and his originality and clear expositions have been a major influence in the work of younger mathematicians in many parts of the world.

He enjoyed the musical life of Glasgow, and his friends, who had feared he would die a bachelor, were delighted in 1980 when he could share that musical life with his new wife Clare, also an accomplished musician. In retirement he continued with mathematical research, and he showed great courage in his final illness.

John M. Howie

Walter Douglas Munn MA, DSc (Glasgow), PhD (Cantab). Born 24th April, 1929, Elected FRSE 1 March 1965, died 26th October, 2008.