



Obituaries

Vale Gordon Preston 28 April 1925 to 14 April 2015



(Photograph courtesy of School of Mathematical Sciences, Monash University)

The mathematical community mourns the death of Emeritus Professor Gordon Preston who passed away peacefully on 14 April 2015 in Oxford, UK at age 89. Professor Preston was an important contributor to algebraic semigroup theory, one of the founding professors of the School of Mathematical Sciences at Monash University and a respected head of school during his numerous appointments from 1963 until his retirement in 1990.

Gordon Preston was born 28 April 1925 and grew up in Carlisle, UK. He began his higher education in 1943 when he received a scholarship to the University of Oxford. He would ultimately graduate with first class honours in mathematics, but Preston's studies were interrupted when he was called up for war service towards the end of World War II. Even early on in his mathematical career, Preston's talents were recognised and he was drafted to work at Bletchley Park. It was here that he received his first taste of research, joining the 'Newmanry' — a small group of approximately 20 mathematicians lead by Max Newman.

During his time at the Newmanry, he got to know and to work with other brilliant mathematicians: he recalled spending numerous hours playing Go with the famous code-breakers Alan Turing and David Rees. His time at Bletchley Park

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Some of the information for this obituary was taken from the following source:

Preston, G.B. (1991). Personal reminiscences of the early history of semigroups.

In *Monash Conference on Semigroup Theory, Melbourne, 1990*. World Scientific Publishing, River Edge, NJ, pp 16–30.

and relationship with David Rees was instrumental in his desire to study semigroup theory: Rees authored the first paper Preston read on the topic.

Upon graduating, Preston was appointed as an Assistant Mathematics Master at the prestigious Westminster School in London. He would leave this position to continue teaching at the Royal Military College of Science. Preston did not abandon research however, and worked part-time on his Doctorate of Philosophy, completing his thesis in 1954: *Some Problems in the Theory of Ideals*.

The Cold War tensions did not deter Preston's quest for knowledge: he insisted on reading an important paper published in the early 1950s by a renowned Russian mathematician. The fact that he did not understand the Russian language nor alphabet was merely a small setback — he equipped himself with a Russian dictionary and spent three hours translating the first sentence alone!

Perhaps Preston's most important contribution to semigroup theory was a set of standardised definitions and terminology. Although the theory was first discussed in 1904, mathematicians would disagree on definitions for the next 50 years (and without standardised definitions it was incredibly difficult to apply a theorem to new situations). So in the 1960s, Preston and his colleague Alfred Clifford set out to standardise semigroup definitions in a monograph that would unite the field and act as a reference for a generation of semigroup-ers: *The Algebraic Theory of Semigroups*, published in two volumes in 1961 and 1967.

Preston left the UK and migrated to Australia in 1963 where he took the position Chair of Mathematics at Monash University. During his career, he published several important papers, opting for quality over quantity. In academic genealogy, Preston had at least 8 students and over 56 descendants. His legacy remains very much present, with three of his former students still at Monash — Dr Phillip Edwards, Dr Thomas Hall and Dr Ross Wilkinson. We even owe some of the contemporary design features of the Mathematical Sciences building to Preston's innovative ideas.

He is remembered through a number of student awards including the Gordon Preston Pure Mathematics Honours Scholarship and the annual Pure Mathematics Prize at Monash University as well as the Victorian Algebra Conference's Gordon Preston Prize.

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