

CENTREFOLD

BOB LONG



Robert Stephen Long is a very good candidate for a long-service medal for his contributions to mathematics in this country, and his career illustrates with great clarity the development of the subject in the past half-century.

Bob turned up at Canterbury University College in 1942, with a University Entrance Scholarship, from St Andrews College. At this time, the mathematics staff of C.U.C. numbered four, and was headed by Professor Sadler, a Scottish geometer, who had been appointed in 1930. Bob did well as an undergraduate—in 1944, at the end of his BSc course, he was awarded a Sir George Grey Scholarship, and the Haydon Prize in physics—and he went on to study for an MSc in mathematics. In the third term of the 1945 year, he went down with pneumonia, from which he had barely recovered by the time of his examinations, and he was awarded second class honours, rather than the first that he and his teachers no doubt had expected.

He treated this set-back with the stubborn determination that anyone who has ever played tennis or badminton against him would recognize; he returned to his old school, St Andrews, as a mathematics master, to earn and save enough money to take him to Cambridge on his own account. (During this time he first encountered the young Roy Kerr, whom he remembers as being very brisk in dealing with set work in class.) By the middle of 1946, he had saved enough, and sailed off to England and Cambridge. As was the practice at Cambridge in those days, he was obliged to study for a BA; and he completed this in two years, and was awarded first class honours. His course was largely in applied mathematics, which in these days would seem rather to be classical continuum mechanics/theoretical physics, and he was tutored by the astronomer R A Lyttelton, of the famous Hoyle–Bondi–Lyttelton trio, whom he recalls as being capable of giving an elegant solution to almost any problem in the field he studied.

He stayed at Cambridge for another year, taking advanced courses; but the money inevitably ran out (despite some assistance from Canterbury U C) and he returned to New Zealand in 1952, and took a position as lecturer in the Mathematics Department at CUC. Sadler was still the head; but now there were five other members of staff. Research was no longer actively discouraged (see, if you can't believe that this once was the case, Karl Popper's autobiographical "Unended Quest") but as the Hughes Parry report of 1959 indicated—CUC was invidiously cited in this for its amazingly economical use of staff in mathematics teaching—the time which could be devoted to it was constrained by a very high teaching load. In these earlier years of his university teaching career, Bob was called on to give honours courses in five subjects; Electricity & Magnetism, Hydrodynamics, Quantum Mechanics, Optimal Control, and Analysis.

With the retirement of Sadler, and the arrival of Derek Lawden as HoD, the atmosphere if not the resources for research improved a great deal, and through the 1960s Bob wrote and published a series of papers, largely on one of the topics that Lawden had pioneered, that of orbital transfer. He was promoted

to a readership in 1968.

Throughout his time in the department, Bob took more than his share of administrative work, and of the teaching of first-year and engineering mathematics courses, and is rightly remembered for his patience and thoroughness.

On his retirement at the end of the 1980s, Bob became involved in (perhaps "was inveigled into" suits the case better) the NZ International Mathematical Olympiad movement, and set up the weekly coaching sessions which are open to candidate olympians in Christchurch. He is still in charge, and the number of this country's best young mathematicians who have passed through his hands, and who owe a real debt to him for patient instruction, encouragement and inspiration, grows by the year.

Bob's activities beyond the department and mathematics were, and are, for he still pursues them, very much those of the model twentieth century New Zealand man. He plays tennis, and played badminton, with zeal and tenacity. He delights in tramping in the back-country, and has done many of the classic hard tramps of the South Island. He was until very recently an enthusiastic skier. He is a meticulous gardener. And a pivotal point in his life occurred in the early fifties, when at a tennis club afternoon he was allocated a mixed doubles partner, no doubt by some random process: This of course a classic mid-twentieth way of meeting one's future wife, and indeed he and Betty, the young woman concerned, celebrate fifty years of marriage this month. A number of his Christchurch friends will share this celebration; and I am sure that many more of his colleagues and friends in the NZMS will wish them well, and will also celebrate Bob's career, so far, of patient and well-judged service to mathematics and the world at large, and wish it to long continue.

Brian Woods