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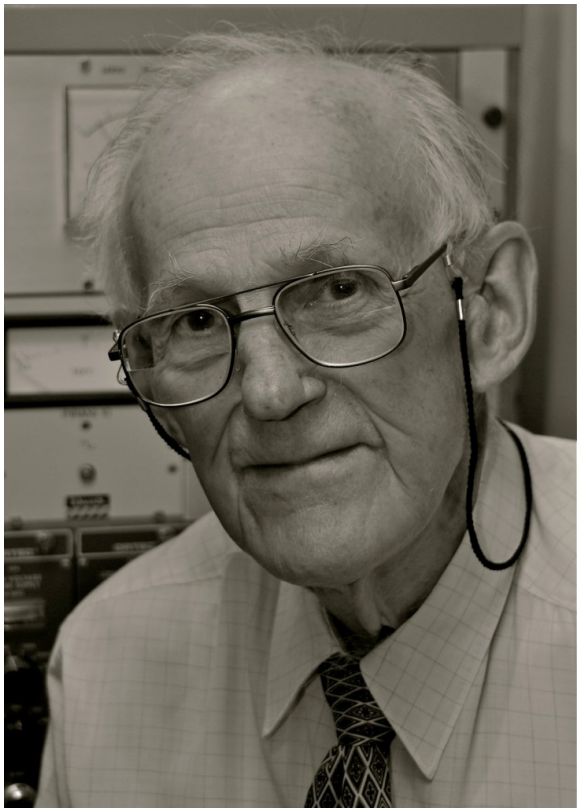
Obituary

John Russell Prescott
(May 31st 1924 - September 1st 2011)



John Russell Prescott, affectionately known to his colleagues and students as "Prof", was born in Egypt on May 31st, 1924, in sight of the pyramids of Giza. However, John spent only the first three months of his life there as his family was about to move to Adelaide, where his father was to become the first Professor of Agricultural Chemistry at the Waite Agricultural Research Institute and later, in 1938, the Director of that Institute. While his father was Director, the family lived in the historic Urrbrae House, of which John continued to be a dedicated Friend until the time of his death. He attended Scotch College where he excelled both academically and on the sports field, and in 1942 entered the University of Adelaide to study Physics. He graduated in 1945 with the degree of BSc (Honours) and in the same year became engaged to Josephine Wylde. He moved to Melbourne to undertake his PhD studies, and he and Jo were married in 1947. In 1948 John was elected an Associate of the Institute of Physics, and in April 1949 was awarded his PhD for his dissertation on cosmic ray showers and bursts. This was one of the first two PhDs in Physics to be awarded by the University of Melbourne. During his time in Melbourne John also worked as one of the two foundation employees of the nascent Australian Atomic Energy Commission.

Apparently not satisfied with one doctorate degree John, now married to Jo and starting a family, then travelled to Oxford to take up a scholarship awarded by Christchurch College to study for the degree of DPhil.. During his time in England he took his wife and young son on a trip through Europe, and could not resist repeating Galileo's famous experiment at the Leaning Tower of Pisa. He danced with his toddler son "sur le pont d'Avignon" before returning to Oxford; he received the D.Phil. (Oxon) in 1953. His thesis was on the nuclear structures of some of the heavy elements, and John always regarded his work on the decay of Bi-207 to be his greatest scientific achievement. In 1953 the family returned to Australia where John rejoined the AAEC at the Physics Department of the University of Melbourne.

Before long the adventure of an overseas post again beckoned and in 1956 the family moved to Canada where John was appointed Lecturer at the University of British Columbia in Vancouver. In 1960 he moved to the University of Calgary, Alberta, as Assistant Professor, where he remained for eleven years. John was promoted to Professor in 1968. It was in Alberta that he revived his interest in cosmic ray physics through studies at a high-altitude site at Sulphur Mountain in the Canadian Rockies, and started pioneering work on radio emission from cosmic ray showers at the Dominion Radio Astrophysical Observatory near Penticton. In addition to his research activities, and giving dynamic lectures to his students, John sang in choirs, played cricket, explored the Rockies, skated, skied, and culminated a hockey career of 40 years by qualifying as a grass hockey umpire and umpiring in the 1967 Pan Am games.

In 1971 John returned to Australia where he took up a position as Professor of Physics at the University of Adelaide, and in 1982 he was appointed Elder Professor of Physics, a distinguished title dating back to the Nobel prize-winning Sir William Bragg, who was appointed to the position in 1886.

John was passionate about teaching, and subscribed to the view that physics academic staff should be able to lecture on any undergraduate physics course. He made a special study of the teaching of elementary physics courses, particularly undergraduate laboratories in which he enjoyed performing entertaining experiments. His yellow Volvo with its sticker "Physics is Phun" will be fondly remembered. His main research interest continued to be in cosmic rays, and together with colleagues, he relocated the Penticton cosmic ray detectors to the University of

Adelaide's research station at Buckland Park. This was the beginning of the Adelaide Cosmic Ray Physics (later named High Energy Astrophysics) group which John led for the next 20 years, until his retirement.

He also played a major role in raising awareness of employment opportunities in physics, and published extensively on physics education. He surveyed all advertisements for physics employment in "The Australian" newspaper weekly for 25 years and regularly published the results and trends, for which he received the Australian Institute of Physics Outstanding Service award in 2003. In between all this activity John found time to build a harpsichord.

During the mid-1970s John and Jo participated as volunteers in archaeological digs at Roonka on the River Murray. This led John to ask the question of how could physics assist archaeology? He was advised that dating would help, and hence developed an interest in the relatively new technique of thermoluminescence dating then decided that he would start up a laboratory as a side-line to his core research interest in cosmic rays. He reasoned that it would make a good hobby in his retirement, which at that stage was still fifteen years off! Luminescence soon began to dominate his academic research, and John wrote over a hundred papers on the subject. His field activities extended to Lake Mungo, Lake Amadeus, the Flinders Ranges and many other localities in Australia, and as far afield as China and Thailand. Back in the laboratory he and his students developed and built a "Three Dimensional" Fourier Transform spectrometer for the study of the wavelength of luminescence from mineral grains – the first such instrument to be built and still the only one of its calibre in the world. At the same time his interest in cosmic rays did not diminish and he applied his knowledge of it to luminescence: his paper on the relationship of cosmic ray dose-rate to depth, density and latitude is one of the most cited articles in the luminescence literature.

In 1990 he officially retired and delivered his valedictory lecture at which, among other things, he demonstrated how to cook eggs in liquid nitrogen.

John and Jo became members of the Glenunga Croquet Club, and in characteristic fashion John gave the game his very best, soon winning his first of several competitions. They were also active and valued members of the Field Geology Club of South Australia. In 2007 John and Jo celebrated their 60th wedding anniversary.

In the academic world John continued to receive acclaim, including a special award from the University of Melbourne for being among its first PhD awards, and in 2002 the Royal Society of South Australia's Verco medal for an outstanding contribution to science, which had special meaning for John as his father had been awarded that same medal 64 years previously.

Retirement to John meant coming into the Physics Department five days a week and honing his expertise in luminescence dating and the physics of luminescence. He was also a regular contributor to the "Would you believe it?" column of the Adelaide daily newspaper, the "Advertiser". In 2004 a special conference and celebratory dinner were held at the University of Adelaide in honour of John's 80th birthday. His only concession to octagenarianism, however, was to reduce his attendance in the lab to just 3-4 days a week (Wednesday mornings being dedicated to croquet) and, following a knee operation, to cease riding his bicycle to work and to use the lift instead of the stairs to reach his office. His publication output did not decrease and he continued with pioneering research, particularly that involving use of his 3D spectrometer, right to the end. His last message to his colleagues at the luminescence lab, only three days before he went into hospital, was "I may not be in for the rest of this week. Please keep my laptop charged up".

John's service to the University of Adelaide has been outstanding, including periods as Dean of Science, Chairman of Physics and later of Physics and Mathematical Physics, and also Chairman of the Education Committee. He was a wonderful colleague and friend, held in the greatest esteem by the Cosmic Ray and Luminescence Groups which he had founded, by his colleagues in Physics, Geology and Geography, and by the worldwide communities in those disciplines. A gifted and caring teacher, mentor and supervisor, he always put his students and their welfare above all else, giving generously of his time, knowledge and expertise. Although he was a firm disciplinarian, his heart was of gold. Often a colleague would find on their desk an apple, a cluster of delicious peaches, capsicums or other products of his garden for, among his many other talents, he was a dedicated gardener and delighted in sharing the results. His kindness and generosity, sense of humour, love of jokes, deep love of science, breadth of knowledge and intellectual curiosity were, and will continue to be, an inspiration to all who knew him. He will be sorely missed. He is survived by his wife Jo, with whom he shared a true partnership for 70 years, and children James, Ann and Kate.

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