

Obituary

Robert Frith Allbrook (1928-2020)

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Introduction: legacy

Dr Robert (Bob) Allbrook (10 November 1928–18 September 2020) was a lecturer in soil science at the University of Waikato in Hamilton from February 1975 until his retirement on 31 December, 1993, a tenure of service of nearly 20 years. Bob was appointed relatively early in the development of the Department of Earth Sciences, which had been founded in 1970 within the newly-formed School of Science. By 1975, Bob had considerable experience under his belt (see below). His main role was to help Prof Harry Gibbs with teaching responsibilities broadly in soil science. The aim in those days was to have at least two academics involved in teaching in each subdiscipline, including soil science, within the subject of Earth sciences, so that staff could have time to work on research and supervision and undertake sabbatical leave without compromising the all-important burgeoning teaching programme.



Bob in the lab measuring soil grain size distributions using the pipette method (1980s). Photo: (probably) Rex Julian or Ross Clayton.

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Bob was responsible for running the main soils lab, where he taught literally hundreds of students (a total of around 800 according to Balks, 1993) about soils and their physical, chemical, and mineralogical properties. He also supervised/co-supervised graduate students in their research, taking on masterate students (including Bill Cotching, Jimmy Seouw, Warwick McDonald, Chris McLay, Colin Gray, Kathryn Hughes, Richard Chapman, Mark Buckley, Zane Wealleans, Anwar Ghani, and Brian Warburton) and then a number of excellent PhD students (including Richard Chapman, Megan Balks, and Rob Lieffering), guiding them to satisfactory completion mainly in the field of soil physics.

Bob was excellent in his capacity as a supervisor, being outwardly somewhat strict but actually very supportive throughout. His students have all gone on to good careers including a number attaining high level appointments both in New Zealand and overseas, just two examples being Dr Chris McLay (appointed to replace Bob in the Department of Earth Sciences from 1994-2002), who is now CEO of Waikato Regional Council, and Warwick McDonald who, until March 2020, was Research Director, Water Resource Management, CSIRO Land and Water, Canberra (Lowe and Balks, 2018).

Bob made a substantial contribution to both the university and to the discipline of soil science with his publications, teaching, and mentoring, which stand as part of his legacy.

Early life and career

Bob grew up in North London and went to school in the City. His school organised farm work during summer holidays to help farmers bring in the harvest as part of the war effort. After leaving school, two years of compulsory military service in the British Army followed (1946-48). He attained the rank of sergeant. Bob injured his knee in an accident whilst disposing of ammunition and he later credited this unfortunate event, which hospitalised him, as saving him from being sent to serve in the Korean War that broke out mid-1950. Bob worked on a farm for a year or more after his military service because that was a minimum requirement for him to enrol in the Faculty of Agriculture at King's College in Newcastle (then a college of the University of Durham). He graduated with a BSc in agriculture in 1956 and BSc(Hons) in agricultural chemistry in 1957.

Soon after, in 1957, Bob was appointed by the UK Colonial Service to undertake soil survey-related work in Nigeria for the United Nations to identify soils suitable for cocoa (Balks, 1993). He left in May, 1958, and worked in Sierra Leone on a project to generate the Commission for Technical Co-operation in Africa (CCTA)/FAO 'Soil Map of Africa' 1: 5,000,000 (published in 1964) before returning to the UK in where he married Rosemary Brown in London in 1963. The couple then travelled to Jordan under the British Aid programme (1964-65) where Bob undertook soil, water, and leaf analyses on oranges in the Jordan Valley. High levels of Na and Cl ions in irrigation water had led to chlorosis (Allbrook, 1967). Rosemary reported during her eulogy at Bob's funeral (23 September 2020) that

these were 'the best of times' and 'the worst of times', the latter referring to the sad death of their first child soon after birth.

Malaya (now Malaysia) was the next destination and Bob taught in the Faculty of Agriculture and Department of Geology at the University of Malaya in Kuala Lumpur for six years (1967-73) (Balks, 1993). He began working towards his PhD on the genesis and characteristics of soils derived from recent marine sediments in northwest Malaya, including soils used for rice production (Allbrook, 1977). (The PhD thesis was finalised in Hamilton in 1975 when Bob began at Waikato.) With the rapid progress of teaching in Bahasa Malaysia (the Malaysian language), expats were forced to leave the country. Bob and Rosemary, with daughters Georgina and Hilary, came to New Zealand in 1973, with Bob appointed as an agricultural officer in the Ministry of Agriculture in Palmerston North for two years (1973-75) (Allbrook and Stiefel, 1976).

University of Waikato (1975-1993)

As well as teaching, Bob worked on a wide range of topics whilst at Waikato including characterising the components and properties of volcanic soils in central North Island and Taranaki. His research encompassed some aspects of soil chemistry (e.g. Ghani and Allbrook 1986) but largely he mainly focussed on the field of soil physics, including studies on the special properties of allophane and allophane-rich soils (Allbrook, 1983, 1984, 1985; Allbrook and Radcliffe 1987) along with soil compaction, shrinkage, fractals, and other topics relating closely to land management, such as impacts of cultivation (Cotching et al., 1979; Allbrook, 1980, 1981, 1986, 1988, 1992, 1994; Balks and Allbrook, 1991; McLay et al., 1992; Gray and Allbrook, 2002).

Two interesting applications of Bob's work with students involved rugby and cricket: Richard Chapman's PhD involved subsoiling trials on the physical properties of soils at Rugby Park (now Waikato Stadium), Hamilton, in preparation for the internationals held there during the Rugby World Cup of 1987 (Chapman and Allbrook, 1987); and Zane Weallean's MSc thesis involved research on the 'playability' and management of cricket pitches.

Bob was also interested in the history of soil science in New Zealand (Allbrook, 1990, 1997).

Bob spent three periods away from Hamilton on sabbatical leave, one at Scottish Institute of Agricultural Engineering at Scottish Station, Bush estate, at Penicuik near Edinburgh, then in Oregon, USA, and finally a leave divided between Reading and Thailand where he was to help set up a soil science laboratory. Unfortunately, construction of the building to house the lab had barely begun when Bob arrived in Thailand and so that objective was unattainable. Nevertheless, he was kept busy helping students who were all taught in English.

Adventures in Northland

I was embarking on graduate study in 1975 when Bob arrived, and later as a lecturer I worked closely with him at times, including jointly taking our third-year soil science students to Northland each year for a three-day pedology field trip (which I continued running up

until 2010). It seems somewhat ludicrous now, but on one such trip in March 1980, during the infamous 'carless days' from July 1979-May 1980, we had to take extra cans of petrol in our van and divert to a garage in Auckland to surreptitiously pick up more fuel to complete our journey. (Mind you, with COVID-19 and the year of 2020, carless days seem almost rational now.)

On another occasion our trip north coincided with the arrival of a tropical cyclone. All I can remember is torrential rain, so much so that we completely abandoned our trip (we could not even find our field sites, such were the conditions), and ended up in a pub somewhere remote in the winterless north to dry out.



Bob at the wheel during a Northland field trip when it barely stopped raining (15 March 1980). Photo: David Lowe

On these trips we used to stay at a church youth camp near Marsden Point and, because the camp was strictly alcohol-free, we used to ban the students from taking any alcohol (that we were aware of). On one memorable trip we had just arrived in the early evening. Bob and I were speaking to the camp manager, who always ensured the rules were followed to the letter. As we were chatting in the descending darkness, I noticed Bob was covertly clutching to his side a brown paper bag from which suddenly slipped a bottle of beer (one of three) with a crash, shattering on the concrete path. Rather awkward to say the least but the manager saved the day by saying, "Well, better spilt on the ground than consumed", or words to that effect.

On another occasion Bob had forgotten to ask the local farmer for permission to examine a mid-Holocene Podzol Soil exposed in a small sand quarry on his farm near Marsden Point, and a rather irate farmer turned up and seemed on the point of 'having a go'. Very entertaining for the students of course. Bob managed to rescue the situation and himself with some well chosen words, possibly falling back on his military training to see the situation resolved.



Bob attempting to explain to an angry farmer near Marsden Point why Podzol Soils on sand are so special (March 1982). Photo: David Lowe

I was appreciative of Bob's support in my teaching and research. I especially enjoyed Bob's company at conferences where, away from the university, he was genuinely himself and very companionable.

Other aspects

Bob had many hobbies including bell ringing and, as well as singing bass in choirs, he learnt to play the double bass while Hilary was learning the violin. In Oregon, he played double bass in a small orchestra wearing a suit picked up from an op shop. Later in Hamilton Bob played in the Lyric Players performing in small concerts in rest homes, for example. In the early 1980s we both played together in a concert of the Waikato Symphony Orchestra (I played 1st trumpet).

During his retirement years Bob worked as a volunteer for Trade Aid, delivered Meals-on-wheels, was active with the local Red Cross committee as well as Save The Children, and

helped out with garden upkeep at St Peter's Cathedral. He was for a time on the board of VSA. Bob was also a member of the 60+ club and U3A. I gave a talk at the 60+ club some years after Bob had retired, and he was in charge of 'audio visuals' at that time, helping me out.

Unfortunately, Bob developed vascular dementia and spent the last two years of his life in care at Tamahere on the outskirts of Hamilton.

Bob remained a true Englishman for his entire life, and a staunch Labour Party supporter. The singing of 'The Red Flag' at the conclusion of his funeral – possibly the first time it had been heard in St Peter's Cathedral – seemed a fitting end to commemorate a very interesting and well-lived life.

Bob is survived by Rosemary, Hilary and partner Robin, Georgina and partner Douglas, and grandson Nicholas.

Acknowledgements

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