Betty Louise Turtle, 1941–1990

Louise Turtle died peacefully at her home in Paddington on 29 September 1990, after a long illness. Louise was a prominent member of the Australian astronomical community, recently serving as Head of the Department of Astrophysics and Optics at the University of New South Wales.

Following an undergraduate career at the University of Adelaide, Louise Webster (as she then was) became one of the early students in the graduate school in astronomy at Mount Stromlo. Under the enthusiastic directorship of Bart Bok, Louise worked with Bengt Westerlund during her doctoral studies. Her thesis was *Southern Planetary Nebulae*, a topic in which she retained an active interest through her whole career.

After graduating with her PhD degree in 1967, she held an instructor position at the University of Wisconsin, USA, before becoming a Scientific Officer and then Principal Scientific Officer at the Royal Greenwich Observatory, Herstmonceux. There she worked initially with Sir Richard Woolley. Later, with Paul Murdin, she made an exciting identification of the X-ray source Cygnus X-1 as a possible black hole. This source is still regarded as one of the most plausible black hole candidates. Part of Louise's time with RGO was spent at the South African Astronomical Observatory, and a further part as a Commissioning Astronomer with the Anglo-Australian Telescope Project Office during the period when the 150-inch was near completion. Following this she spent three years as a staff astronomer at the Anglo-Australian Observatory.

In 1978 she was appointed to the staff of the School of Physics at the University of New South Wales where she served for the remainder of her career. Louise took a leading role in establishing the University of New South Wales as an important centre for astronomical research. As well as continuing the work on planetary nebulae and abundance gradients for which she is best known, she played a key part in the development of the Automated Patrol Telescope. Situated on Siding Spring Mountain, this telescope was opened in 1989. Louise provided the main astronomical guidance on this project, and was tireless in her efforts to obtain funding, to clear bureaucratic hurdles, and to bring the project to fruition.

As a physicist Louise was exceptionally good. Her gentle and self-effacing manner occasionally led people to underestimate her—but not for long. At a time when we would all like to see more women in physics, the University of New South Wales was uniquely blessed to have Louise on the staff. Anyone clinging to the old-fashioned idea that physics is a male preserve found this view utterly untenable in the face of Louise's personal example.

Louise was keenly interested in teaching and in the welfare of her students, and did much to promote astronomy to young people. Her development of a fourth-year honours course did much to encourage several University of New South Wales students to pursue careers in astronomy. This course remained one of the most popular fourth-year electives for all the years that Louise taught it.

Another innovation was the development of a Liberal Arts astronomy course at early undergraduate level. Although this type of course was new to Australia, it was quickly successful and is still one of the most popular courses of its type at UNSW. It has served as a model for several similar classes, and has inspired a love of astronomy in hundreds and hundreds of students.

Louise will be remembered as a person of the utmost integrity, always completely fair and always dependable as a person of great common sense. Because of these qualities she was much in demand to serve on various committees both within the School and the wider University context. The more delicate or difficult the issue to be resolved, the more grateful were people to see Louise on the committee.

Her services to the astronomical community during the time have been constant and unselfish, and all of us working in the field of astronomy in Australia have benefited from her efforts. A member of the International Astronomical Union (IAU) and the Astronomical Society of Australia (ASA), Louise was also a former Fellow of the Royal Astronomical Society. She served a term on the Council of the ASA, and on the time allocation committees for Parkes, the Anglo-Australian Telescope and Mount Stromlo.

In 1983 she played a leading role in the organisation of the Annual General Meeting of the ASA, bringing this conference to the University of New South Wales for the first time. Later, she chaired the Scientific Organising Committee of the Fifth Asian-Pacific Regional IAU Meeting, before ill health forced her to step down. Both meetings were important chapters in Australian astronomy, and the structure which Louise put together for each ensured their success.

Another important gathering which Louise was largely responsible for putting together was *The History of Astronomy* session at the 1988 ANZAAS Centenary Conference. This session, which was Louise's idea, brought eight eminent Australian astronomers together to present their views and be recorded on videotapes for posterity. Sadly, the videotapes do not include

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Louise herself, her characteristic modesty keeping her behind, rather than in front of the camera.

It was largely at her initiative that the ASA established as annual award for the best undergraduate project of an astronomical nature. This award, the Bok medal, is named after someone who was also a great encourager of talented students. One of these students whom Bok encouraged was, of course, Louise herself.

Louise was married to Tony Turtle in 1978, although she retained the name Webster on her published papers. Their marriage was a source of delight to all their friends. Following the birth of their son, Michael, in 1980, Louise managed the dual role of mother and physicist with characteristic aplomb.

Her strength, courage and cheerfulness during the years of her illness have made a lasting impression on all who have known her. At no time were these qualities better shown than when she attended the dinners of the two international conferences held in Sydney during last July. Although the physical effort which her involvement required was obviously very great, throughout both occasions she was her usual cheerful self. It is a mark of the respect in which she is held that a great many of her Australian and overseas colleagues took the opportunity at the second conference of paying tribute to her work and to her life.

With the passing of Louise Turtle Australian astronomy has lost one of the most highly respected members of our community—an excellent astronomer, a valued colleague and a greatly loved friend.

J. W. V. Storey and D. J. Faulkner

A memorial fund in honour of Louise Turtle has been set up at the University of New South Wales. Enquiries in regard to this fund should be directed to Professor J. W. V. Storey, School of Physics, University of New South Wales, PO Box 1 Kensington, NSW 2033 Australia.