Lorna Arnold

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Obituary

Lorna Arnold

Lorna Arnold OBE, Honorary Fellow of the Society for Radiological Protection, died on 25 March 2014, at the age of 98 years, following a stroke.

Lorna had a long, distinguished and varied career. She was born Lorna Rainbow in London, grew up on a farm in Surrey, attended Guildford County School for Girls and then studied English Literature at Bedford College, University of London. Before the Second World War, while in her early twenties at Cambridge University, where she trained to be a teacher, she was part of the entourage of the literary critic F R Leavis. After a brief spell as a teacher, she entered the Civil Service following the outbreak of war, initially in the War Office and later planning the occupation of Germany, and she remained in official postings for a large part of the rest of her career. On the fall of Germany, Lorna was posted to a devastated Berlin (sleeping with a revolver under her pillow), where the soldiers greeted her as 'Miss Rainbow, sir!'. She was then sent by the Foreign Office to the British Embassy in Washington, initially for a short period, but where she eventually remained for three years. There she found herself to be the only woman diplomat, and is also likely to have been the only woman in the British foreign service at that time. One of her colleagues at the British Embassy was Donald Maclean (of 'Burgess and Maclean' spying fame).

In 1949, she resigned from the diplomatic service, assuming that a man would be appointed to the post she held. When she returned to London she married Robert Arnold, an American whom she had met while working in Washington, and they had two sons. In 1955, her husband returned to the USA, and Lorna found herself a single parent, which was particularly difficult at that time. She had a variety of jobs in London, including working for the Family Planning Association in its early years, and in a biscuit factory.

An encounter with a former colleague from Berlin led to Lorna joining the UK Atomic Energy Authority (UKAEA) in January 1959, recruited to the Authority Health and Safety Branch (AHSB) that had been established—in the wake of concerns following the reactor fire at the Windscale Pile No. 1 (at Sellafield) in October 1957—on the recommendation of the Fleck Committee, which had been established to examine, *inter alia*, the management of health and safety within the Authority. In the AHSB her first job was as a joint secretary of a committee on training in radiological protection, set up as a result of the Windscale accident. It should be appreciated that Lorna had no formal scientific education, but built up her considerable knowledge of matters nuclear (that she was to use to great effect in later years) while working at the UKAEA. At the AHSB she worked for the first UKAEA Director of Health and Safety, Dr Andrew McLean, who had been the Chief Medical Officer at Risley during the Windscale Fire and was to become the first Director of the National Radiological Protection Board on its formation in 1971.

In 1967 Lorna was transferred from the AHSB to the UKAEA History Office where she worked with Margaret Gowing to produce in 1974 the monumental two volume treatise, 'Independence and Deterrence: Britain and Atomic Energy, 1945–1952', which examined in detail the policy and execution of the UK atomic bomb project during 1945–1952—the official history of the development and production of the first atomic bombs in this

Lorna Arnold in the early 1960s.

country. 'Independence and Deterrence' is still in print today. Margaret Gowing had already published, in 1964, 'Britain and Atomic Energy, 1939–1945', but a sequel to 'Independence and Deterrence' that was to examine the development of atomic energy in Britain during 1952–1958 was not completed or published. Nonetheless, much of the work that Lorna invested in this unfinished book was to be put to good use in the books she later wrote, which flowed naturally from the information she gathered at this time.

In 1976, Lorna was honored as an Officer of the Order of the British Empire (an OBE) for her contributions to documenting the history of the British nuclear project, in particular her contribution to the production of 'Independence and Deterrence'. Queen Elizabeth The Queen Mother, when presenting the OBE to Lorna, was heard to remark, 'Hmm … for nuclear history. That must be a short history.'

In 1987 Her Majesty's Stationery Office published Lorna's book 'A Very Special Relationship: British Atomic Weapons Trials in Australia', which examined the history of the testing of British nuclear weapons in Australia during the 1950s. A new edition of this book, co-authored with Mark Smith and now entitled 'Britain, Australia and the Bomb: the Nuclear Tests and their Aftermath' was published in 2006, and was expanded to explore the controversies over the health of the test participants and the clean-up of the old test-range at Maralinga.

With the prospect of the public release in January 1988 (under the '30 year rule') of many official documents concerning the 1957 Windscale Fire—including the official report of the Penny Inquiry that took place immediately after the Fire and which Harold Macmillan declined to make public in 1957, against the advice of the UKAEA—Lorna was prompted to re-examine the material (including interviews with many of those who had to deal with the fire and its aftermath) that she had gathered on the accident for the potential book with

Margaret Gowing on nuclear energy in Britain during 1952–1958. As a result she suggested to the UKAEA that a book on the Windscale accident should be written, and this was accepted. Apparently, Margaret Thatcher was not happy with the treatment in the book of the handling by the (Conservative) Government of the time of the aftermath of the 1957 Fire, including the suggestion that the Windscale workers could have been responsible for the accident; but Lorna was adamant that a balanced history of all aspects of the Fire should be included in the book, so despite official pressure, Lorna got her way. 'Windscale 1957. Anatomy of a Nuclear Accident' was first published in 1992, and the third edition was published in 2007 to coincide with the semi-centenary of the fire. 'Windscale 1957' is a highly impressive book: researched in depth, well written and definitive, and did Lorna great credit. The description of the difficulties faced by those charged with radiological protection during and following the accident, in those early days when much was unknown, is particularly fascinating.

In the late 1990s, when Lorna was in her eighties, I accompanied her in an open lift up the outside of the Windscale Pile No. 1 chimney to the filter gallery some 120 m above the ground. She greatly enjoyed the visit to the scene of the accident that was the subject of probably her most famous book. I recall that a pair of works overalls small enough to fit Lorna could not be found, so the smallest pair were folded and taped at the back for her!

Her third book is 'Britain and the H-Bomb', detailing the British development of a thermonuclear weapon during the 1950s. Again, this is a magnificent achievement, not least because of the information that Lorna has persuaded officialdom to release, much of which was previously classified. The intricate description of the stages in the explosion of a thermonuclear weapon is especially memorable.

In 2012, Lorna published her memoirs, entitled 'My Short Century', in which she describes her journey from a rural childhood to distinguished official nuclear historian—it was a remarkable journey. Given the increasing problems with her eyesight in her later years, eventually leading to blindness, the writing of this last book truly speaks of her fortitude and determination.

Those who cannot learn from history are destined to repeat past mistakes. This is where Lorna's special skills came into play. She was one those vanishing species who, with official blessing, dedicatedly and painstakingly chronicle the events of the recent past so that we can understand them and learn for the future. It is a great pity that today no one seems to be funded to follow Lorna's example and try to understand other aspects of our nuclear history, so that we know from where we have come—of considerable relevance today given the decommissioning of those nuclear sites of which Lorna wrote.

Professor Peter Hennessy, in a forward to the third edition of 'Windscale 1957' described Lorna as 'incomparable'. Professor Brian Cathcart, in another forward, said that 'she embodies all that is best in official history'. It is difficult to add to such praise from fellow historians.

Lorna Arnold was a Fellow of the Institute of Physics and a Fellow of the Institute of Contemporary British History. She received an honorary Doctorate of Letters from the University of Reading in 2009 for her work on nuclear history. Lorna was a kindly woman with a sharp intellect, who had a deep dense of honesty, fairness and perspective. She had a varied, and sometimes difficult life, but her major contributions to nuclear history in the UK are for what she will be remembered. I was honoured and glad to have known her.

Richard Wakeford