-Wife to her lazy husband lounging on the sofa: "Now if science could only find a way to split you and release your energy."

-The beginnings of nuclear splitting: Adam in the Garden of Eden trying to crack a coconut between two rocks.

-German nuclear scientist after Hiroshima: "I'd feel better if I had taken over dad's herring shop."

In January 1946 the Farm Hall residents were allowed to resume civilian life in Germany. Some of them later made major contributions to the rebuilding of German science and to its reintegration into the world scientific community.

This play no doubt will be of intense interest to those who remember that period and the news at the time of the Farm Hall internments. Given the recent Japanese Fukushima-Daiichi triple catastrophe, the promise and hazards of nuclear energy have once again become of current interest, and I imagine that a presentation of some of the earliest beginnings of the human nuclear experiment will be widely welcomed.

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* Should this prove difficult and you would like a CD mailed to you from London, please email MediaArts@rhul.ac.uk, with Nuclear Reactions CD in the heading; or write Department of Media Arts (Nuclear Reactions CD), Royal Holloway University of London TW20 0EX, UK. Be sure to send your mailing address including your country.

Radioactive: Marie & Pierre Curie, A Tale of Love and Fallout, Lauren Redniss, It Books (HarperCollins), New York, 2010, 208 pp, ISBN 978-0-06-135132-7, $29.99.

Even before opening *Radioactive: Marie & Pierre Curie, A Tale of Love and Fallout* its title and cover tell you that you are about to engage with a unique text. The words Radioactive and Fallout viscerally evoke the dangers of the nuclear age that began, in part, with the Curies' discoveries, while metaphorically encapsulating the mystique and passion of the life that they had together. The cover art foretells the visual nature of the text to come—a luminescent, almost tactile, graphic biography.

Opening the book confirms the inklings of intrigue promised by the cover. From the red ghostliness of the flyleaf and the blue chemical wash of the title pages it becomes immediately apparent that Lauren Redniss has individually crafted each page to evocatively reiterate the book's "radioactive" themes; thematics that include the Curies' discovery of radioactive elements, their and their culture's fascination with these element's extraordinary properties, the curative and destructive nature of nuclear radiation, as well as the Curies' personal and professional loves and losses. Yet, even before reading any of the text, it calls out to be looked at—perused, like a beautiful coffee-table book. One particularly striking visual aspect of the book is the use of cyanotype printing, a method some readers will be familiar with from grade-school projects using blue "sunlight" paper. As Redniss explains at the end of the book, using this chemical process has multiple resonances with the text's narrative. It captures "what Marie Curie called radium's spontaneous luminosity," mimics the "photographic imaging that was central to the discovery of X-rays and radioactivity," and, in its production of Prussian blue upon exposure of the paper to sunlight, yields a compound that is a "safe and effective treatment for internal contamination by radioactive cesium and radioactive thallium" (pg. 199).

The story of Marie Curie's life has been told many times before, so it is not the telling, but the way it is told that matters. Unlike Barbara Goldsmith's *Obsessive Genius*, which seeks to reveal the truth behind the myth of Madame Curie, Redniss revels in the imaginative space generated by Marie and Pierre's lives and work. Linking together science, spiritualism, desire and death, Redniss's history of the Curies is a book unlike any other that I have read; fragmentary, associative, and compressed, she creates a lyrically combustive whole. This is an artistic rendering of the Curie's lives and not a comprehensive biography. The narrative, although chronological, is held together in a loose web of information, quotes, images and asides that reinforce the visual and cultural power

of the book: page thirty-eight contains only the statement, "Two years and two months into their marriage Marie gave birth to a six-pound baby girl. They named her Irene;" page forty-three, a reproduction of an X-ray image of Wilhem Röntgen's wife's fingers and wrist; and page eighty-three, a brief but devastating recounting of the bombing of Hiroshima from survivor Sadae Kasaoka. Even the chapter titles play a part in weaving the metaphorical interconnections Redniss seeks to make, highlighting the way in which scientific language encapsulates and creates meanings within and beyond the boundaries of science. The first chapter "Symmetry," a key conceptual framework underlying much of modern physics, is laid out so that the story of Pierre and Marie's early lives, in the form of biographical fragments and quotes from their collective papers, mirror one another on each of the facing pages of the chapter, while the last chapter, "Daughter Elements," a termed borrowed from the vocabulary of nuclear physics, tells the story of Marie's death and the carrying on of her work by her daughter Irene Joliot-Curie.

One might imagine that such a fragmented biographical narrative might be difficult to follow, but somehow Redniss is able to strip bare the details and distill the essential moments of the Curies' passionate personal and scientific life while simultaneously providing an abbreviated, yet exhilarating history of radioactivity in the twentieth century. She captures how serendipity, hard work, and genius coalesced in their scientific work, how magical radioactivity seemed at the time of their discoveries, and how shockingly dangerous, in retrospect, the experiments they carried out were. *Radioactive* reverberates with energy and captures the cataclysmic cultural changes—nuclear energy, war and medicine—wrought by their (and other's) groundbreaking science; a powerful and unique book, for historians, and non-historians alike.

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Nothing Less Than an Adventure: Ellen Gleditsch and Her Life in Science. Anne-Marie Weidler Kubanek, Crossfield Publishing, Montreal, Canada, 2010, 185 pp, ISBN 1452842132, $19

In the celebration of the outstanding contributions of Marie Curie, it is widely overlooked that there were other women active in the field of radioactivity during that period. Ellen Gleditsch was one of those forgotten women radiochemists. This definitive book by Kubanek finally brings recognition of the contributions of Gleditsch to the English-speaking world. In addition to researching correspondence of Gleditsch with contemporary scientists, Kubanek painstakingly tracked down and interviewed surviving relatives, friends, and former students of Gleditsch. Kubanek has woven their commentaries into this fascinating biographical study.

Gleditsch was born in 1879 at Mandal in southern Norway. Having a fascination with science from an early age, she excelled in school, particularly mathematics. Had she been a boy, Gleditsch would have progressed to university: instead, her father found her a position as a pharmacy assistant. After qualifying as a pharmacist, Gleditsch tried to obtain a university education and, in this quest, she was aided by a chemistry professor at the University of Oslo, Dr. Eyvind Bødtker. Bødtker hired her as a laboratory assistant and he encouraged Gleditsch to publish her research. Bødtker visited Paris and pestered Marie Curie to accept Gleditsch into Curie's research group. Initially very reluctant, Gleditsch's publication in the *Bulletin de la Société Chimique* plus a promise by Bødtker that Gleditsch was so tiny that she would not take up any significant room in the lab, persuaded Curie to accept her.

Arriving in Paris in 1907, Gleditsch was given the task of recrystallizing the mixture of barium and radium salts in order to concentrate the radium. In addition, Curie asked her to check the claim by Sir William Ramsay that copper, in the presence of radiation, was transformed into lithium. Gleditsch showed that the lithium came from contamination of the reaction vessel, and not from any element transmutation.

Leaving Paris in 1912, Gleditsch applied in 1913 to work for a year with Bertram Boltwood at Yale. Boltwood