Being Marie Curie

A rich biography shows how the pioneer of radioactivity used her lab to redefine the role of women in science, says **Chen Ly**

Book

The Elements of Marie Curie
Dava Sobel
Fourth Estate, UK;
Grove Atlantic, US

ON 7 November 1867, Marya Salomea Sklodowska was born in Warsaw, then part of the Russian Empire. She was the youngest of five children, and became known as "Manya" by her family.

She was a voraciously curious child who learned to read at the age of 4 and developed a fascination with science, thanks in large part to her father, a teacher of physics and mathematics. Even so, no one could have predicted that this young girl would grow up to become Marie Curie, one of the most celebrated scientists of the 20th century.

In *The Elements of Marie Curie: How the glow of radium lit a path for women in science*, writer Dava Sobel traces Curie's extraordinary path. Curie's pioneering research on radioactivity – a term she coined – placed her at the cutting edge of science. Yet beyond her academic achievements, Sobel reveals a portrait of quiet determination, resilience and compassion, traits formed by a lifetime of personal hardship and profound loss.

Drawing on Curie's personal letters, as well as the accounts of friends, family and colleagues, Sobel crafts a deep and intimate glimpse of the woman behind the science. She highlights not only Curie's professional triumphs, but also the human story that defined her life, made richer by the relationships she cultivated with those around her.

The book's structure is distinctive, with each chapter named after a key figure in Curie's life – individuals who shaped her life's work or were shaped by their connection to her. While Curie's relationships with husband Pierre and her Nobel prizewinning daughter Irène are explored, Sobel also reveals the lesser-known women in her orbit.

These include the women she trained, her "laboratory daughters" as Sobel calls them. We meet Irén Götz, the first female professor at a Hungarian university, and Ellen Gleditsch, who determined the half-life of radium and went on to become the second woman to join the Norwegian Academy of Sciences and Letters.

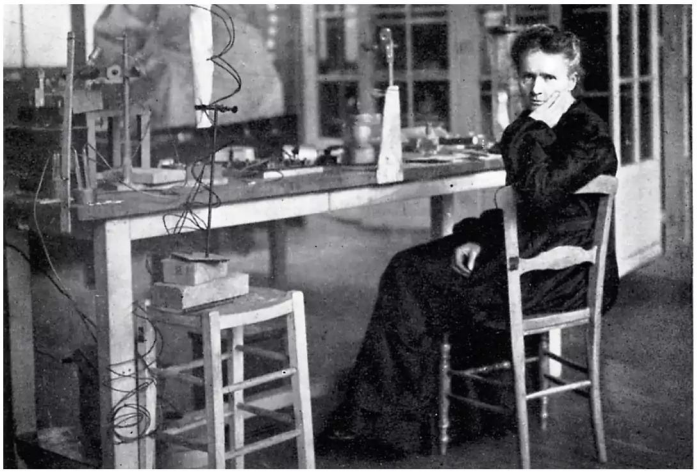
Curie's dedication to science extended far beyond the lab. During the first world war, she trained women to operate mobile X-ray units, providing critical medical care at the front line. After the war, as a leading member of the League of Nations' International Committee on Intellectual Cooperation, she promoted collaboration among scientists. Both of these activities reflected her commitment to applying science for the greater good, showing that she wasn't just a brilliant researcher but could prove a compassionate leader.

Sobel also sensitively explores the emotional toll of Curie's personal life. Her mother and eldest sister died before she was 10. She also faced the untimely death of the supportive Pierre, who had campaigned to ensure she shared his half of the 1903 Nobel prize. Curie had to raise their two young daughters while she continued her research.

In later life, she faced persistent health issues, most likely caused by her exposure to radiation, yet her determination never faltered. This perseverance saw her win Nobel prizes in two scientific fields, physics and chemistry – the only person to have achieved this so far.

The Elements of Marie Curie is much more than a biography. It is a tribute to a woman who redefined what was possible for women in science, inspiring generations to follow her. Sobel's elegant prose and thoughtful use of personal and historical accounts bring Curie to life, offering a nuanced portrait of a woman whose contributions to science were matched by quiet strength, humility and commitment to humanity. This is an essential read, capturing both her genius and her legacy. ▮

Chen Ly is a writer based in London



Marie Curie pictured at work in her laboratory in Paris, in 1912

UNIVERSAL HISTORY ARCHIVE/GETTY IMAGES

New Scientist *recommends*

Tom Leslie
Junior subeditor
London

Stories about science can be a tough sell to friends and family, particularly if they lack the human-centred narratives of a political scandal or court case. Luckily that isn't so a documentary that had

its UK launch recently. **Hunt for the Oldest DNA** is a tight, well-produced work that focuses on a competitive, adventurous, rule-breaker called Eske Willerslev (pictured), who bet his career on finding prehistoric DNA in Arctic permafrost. There are some flaws – the harm Willerslev's ambition causes to others deserved more attention – but the overall result is a thought-provoking character study.

Anyone who has run into me lately will also have had their ears talked off about Vernor Vinge's sci-fi novel **A Fire Upon the Deep**. I may be 30 years late to the party, but it remains an excellent space opera with a unique solution for keeping humans relevant in the universe after the AI singularity. Besides, who wouldn't want a best friend in the shape of a pack of alien puppies?

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