

BOOKS

Marie Curie the Woman; Not Marie Curie the Scientist

Marie Curie: A Life

Susan Quinn

Simon & Schuster, New York,
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Reviewed by Elizabeth Garber

Biography is the most popular form of history. However, the high drama found in the lives of the powerful, the rich or the famous is not usually present in scientists' lives. Susan Quinn discovered an exception in Marie Curie; the life she portrays in *Marie Curie: A Life* is filled with passionate commitment to causes (Polish nationalism), people (husband, children, students) and to work.

As in Greek drama, the passion that sustained Curie through poverty, delayed education and grueling scientific labor betrayed her. Devastated by the death of her husband, Pierre, in 1907, Marie Curie recovered with the help of an affair with Paul Langevin. This became a public scandal as Langevin's marriage collapsed. Curie restored herself to her social place in France by working at military field hospitals, developing and then bringing to the French WWI wounded the diagnostic help of x rays. From the death of her husband onward, although constantly ill (partly from her continued exposure to radium), Curie ultimately oversaw, administered, secured funds for and led her own institute in Paris.

A new Marie Curie emerges from this biography. Its strengths are in the author's understanding of Curie's psychological complexities and interactions with her husband and children. Curie both loved and at times neglected her family. Although she was a woman in a field dominated by men, Curie was not quite a lone outsider forcing the male scientific world to take notice; she belonged to a group of other science outsiders, whose research lay beyond mainstream French

physics and chemistry.

All in the group suffered from neglect that fell short of outright rejection, doing their research in badly equipped laboratories, teaching in institutions of no consequence. They belonged to an international community of researchers working on similar problems, and Marie Curie became an early and formidable authority in that community. But, whereas the Nobel Prize she shared with Pierre in 1903 led to his promotion and election to the Académie des Sciences, she never made the Académie. Nor did she succeed to his title at the Sorbonne, even though she functioned as his successor. Where it mattered, however, Curie had her supporters inside and outside the mainstream. Her second Nobel Prize, in chemistry, was awarded at the height of the Langevin scandal.

This is a popular biography; as such it skims the surface of her work on radioactivity and radiochemistry. Lack of detail becomes irritating: We are told that the canard of Marie Curie being only an assistant to her husband is indeed a canard, but the evidence given is not compelling. This would have required a technical discussion to distinguish what each did. While her work in isolating radium and polonium is described several times as a combination of grueling physical labor and excruciatingly exact measurement, we have to take it largely on faith. By contrast, we learn too much of her family and of the privileged life of the Polish gentry to which she belonged. And we certainly get too full an account of the French press's assault on her during the Langevin scandal. Here there is a plethora of data.

The author has used the personal papers of Curie and her family well, but much of the historical information, especially the history of physics, is taken from too few sources. This impoverishes the narrative to the point where Curie's work is trivialized. Quinn takes on faith descriptions of the political situation in Poland, depending largely on the political commitment of Curie's family—as reflected in the family papers—hardly a reliable account.

The notes also constitute an annoyance. Some sources are listed merely as "an historian of science." Some easily accessible references are not used.

Susan Quinn knows the tastes of her audience: scandal with a dash of nationalist history and a light once-over for the intellectually demanding aspects of Curie's life. This approach excises the very reason Curie was prominent enough to prompt a biography in the first place. Being a physicist is beside the point in this narrative.

Physics: Concepts and Connections

Art Hobson

Prentice Hall, Englewood Cliffs,
N. J., 1995. 530 pp. \$59.00 pb
ISBN 0-02-354841-

"Science's most basic value [is]: All ideas are subject to testing by experience and to challenge by critical rational thought." This core idea underlies Art Hobson's *Physics: Concepts and Connections*, an engaging, concept-focused book for nonscience college students, the structure of which makes it easy for the teacher to mix and match from a menu of Newtonian physics, modern physics, the philosophy of science and societal issues.

The book's technical execution is excellent. Hobson uses mks units throughout. There are many sidebars with wonderful quotations—although I do wish the sources had been included to help students who might wish to explore further. One such sidebar juxtaposes the totally incompatible views on plutonium and the future of nuclear power of Robert Williams, Harold Feiveson and Amory Lovins with the incomprehensibly unrestrained optimism of Wolf Haefele and Bernard Cohen. Apt cartoons, many by a favorite of scientists, Sidney Harris, add levity throughout.

I was surprised and pleased to find sections on extraterrestrial intelligence, astrology and creationism, all used to illuminate what one does and does not mean by "science." A particularly good

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