

## A Brief Historiography of Women in Science

The earliest historians of science were practicing scientists who desired to understand the evolution of their disciplines. Unsurprisingly, many women scientists have also made important contributions to the history of gender and science, including physicists Nina Byers and Evelyn Fox Keller. Today men and women with diverse backgrounds concentrate their historical scholarship in this popular field of research.

Throughout the 20<sup>th</sup> century the history of women in science has progressed from “recovery,” merely uncovering the presence of women in the scientific community, to full integration of their stories into master historical narratives. Some historians have even argued for entirely new master narratives based on their research into women’s work.

Scholarship in this field mainly produces texts in three categories: biographies, biographical dictionaries, and integrated histories. The earliest histories of women in science were biographies. Ranging from hagiographic to critical, biographies are very useful resources, especially when considered in social and scientific contexts.

Biographical dictionaries are compilations of short entries on historical figures. These texts remain important as historians move beyond recovery because they bring attention to individuals whose full stories remain to be written. Outstanding biographical dictionaries include Nina Byers and Gary Williams’ *Out of the Shadows: Contributions of Twentieth-Century Women to Physics* (Cambridge, UK: Cambridge University Press, 2010) and Marilyn Ogilvie’s *Women in Science: Antiquity through Nineteenth Century: A Biographical Dictionary with Annotated Bibliography* (Cambridge, MA: MIT Press, 1986).

Integrated histories merge women’s biographies into the existing master narratives in the history of science. They show how women navigated societal and scientific conventions as they carved out their careers. Excellent examples of these contextualized works include Renee Bergland’s *Maria Mitchell and the Sexing of Science: An Astronomer Among the American Romantics* (Boston: Beacon Press, 2008) and Julie Des Jardins’ *The Madame Curie Complex: The Hidden History of Women in Science* (New York: The Feminist Press at CUNY, 2010).

Throughout all three kinds of texts are recurrent themes. For example, women scientists are often portrayed in one or more of the following roles: the silent worker, the hero, the dependable partner, the invisible scientist, the educator, mentor or political activist, and the scientific supporter. Additionally, social challenges such as marriage, childrearing, and workplace discrimination appear repeatedly.

One of the greatest challenges in studying women in science is the incomplete record of their work. Many of women’s contributions are lost to history because they were not clearly documented. In cases of marital or familial collaboration in the 18<sup>th</sup> and 19<sup>th</sup> centuries, it is difficult to identify a division of labor without notebooks or personal correspondence. Additionally, the publication and attribution standards in various contexts obfuscate the women’s accomplishments. In the early to mid-20<sup>th</sup> century, in projects such as the Henry Draper Memorial Catalog and the Manhattan Project, women “computers” made essential calculations and performed other significant duties. However because their repetitive work was deemed lowly, the names of the contributors were not recorded.

Although challenging, studying the history of women in science is a worthwhile pursuit with wide reaching implications. Pioneering works such as Abir Am and Outram's *Uneasy Careers and Intimate Lives: Women in Science, 1789-1979* (New Brunswick, NJ: Rutgers University Press, 1987) first argued for the impact of a scientist's home life on his or her work. These new perspectives have enhanced historical scholarship on science as a whole. Additionally, studying women's roles, which were often on the periphery of science, reveal unspoken practices and conventions that would have otherwise gone unnoticed.

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