

Breaking Biological Boundaries:

Rosalind Franklin and the Experimental Foundation of the Double Helix Theory

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Individual Exhibit

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Process Paper

Two things drew my interest to Rosalind Franklin; First, I have always been fascinated by women's history and the history of science. Second, Rosalind's personality and interests were things I could relate to in my own life, and the mystery surrounding her story, as well as its complexity, made me want to understand her, both in terms of the theme, and personally.

My preliminary research proved challenging when secondary historical accounts I viewed at Edinboro Universtiy all had contradictory accounts of Rosalind, debating her relationship with feminism. To understand why, I had to focus on objective primary sources; lab notebooks, journals, photos, published papers, and most importantly, collections of Oral Histories of those who worked with Rosalind. I then applied historical context by looking at statistics on women in science/education/workforce at that time (from Dr. Pat Thane, professor of Kings College, London), oral histories on gender prejudice, and effects from major events like WWII. Conclusively, I determined that the contradictory accounts were so because some were pieces of writing written by the 1960s British Women's Liberation Movement, which, though she was not, had made Rosalind into a feminist icon and subsequently wrote feminist-biased biographies on her to use as a platform to preach women's equality, while others were more objective historical accounts written by more modern historians. From here, I could build the rest of Rosalind's story, while maintaining historical accuracy.

Images, data for graphics, and oral histories, compounded with my visual/artistic skill, demanded an exhibit. Because my topic was two-sided, I chose to separate Rosalind's scientific story from her social impact to improve comprehension, and further divide each side into parts of the theme. Gradient matting and painting aimed to bring vibrancy into the board, while the plain black background toned down high contrast of many black and white images. Symbolic colors and typewriter fonts snap the reader's attention to a particular ideas and historical context. Plexi-glass provides borders without clutter, and layering of tiles allows the distinguishing of my analysis and different degrees of reading. Skimming accented tiles conveys the overall story, and by reading additional layers and flaps, the story gains depth.

Demonstrated by the exhibit's organization, my research had a binary theme connection; Scientifically, Rosalind's exploration of crystallographic methods culminated in encounters of vital experimental data, which, upon exchange with Watson and Crick, became the foundation of their Double Helix Theory. Socially, Rosalind's natural personality/scientific passion deviated from social norms for women of the time, and thus, we can say she was exploring new social boundaries for women. Consequently, she encountered prejudice, which served as the perfect story of an icon for the emerging Women's Liberation Movement in 1960s Britain. Their exaggerated legend of "feminist victim, Rosalind" led to high exchange about the morality of gender prejudice, aggrandized the movement, and created change for women all over the world, which continues today. Rosalind Franklin, though not consciously, broke the biological boundaries of science, in molecular biology, and of women, in terms of gender-dictated "social boundaries".

Word Count: 499