

## UNSUNG HEROINES 2023

St. Ann & the Holy Trinity Church and Pro-Cathedral



### **Elizebeth Smith Friedman (1892-1980), Cryptographer**

Elizebeth Smith Friedman was born in Union Township, Indiana, the youngest of ten children of a farmer of Quaker heritage and a school teacher. Her father thought college was a waste of time for women, but he lent her the tuition to go to college, at 6% interest. In college, she studied Shakespeare. Once she graduated from Hillsdale College in Michigan, she took a job teaching, to earn money to repay her father, but quit after one year. She went to Chicago to find work, but found nothing. On her last day in Chicago, she went to the Newberry Library, where Shakespeare's First Folio printed 1623 was on display. When she told the librarian that she was looking for a job, the librarian introduced her to Colonel George Fabyan, who had inherited millions from his family's textile business, and set up a private estate known as Riverbank, where scientists were invited to do independent research.

Elizebeth joined Fabyan's pet project run by Elizabeth Wells Gallup, which was trying to find cipher messages in Shakespeare's folios to prove that Shakespeare's plays were written by Francis Bacon, who invented Bacon's Cipher. Another scientist working at Riverbank was William Friedman, who came to America as an infant – a Jewish refugee

from Russia. He was also an amateur photographer, who made enlargements of the Shakespeare folios for the Bacon Cipher Group. He and Elizebeth studied cryptography together. However, they were unable to find secret messages in Shakespeare's folios.

When the United States entered World War I, the United States had no code breakers, so Colonel Fabyan offered the services of his Riverbank Department of Ciphers. Elizebeth and William Friedman learned all they could about code-breaking, developed new methods of breaking codes and ciphers, trained other code-breakers, and wrote pamphlets on code breaking. They were married in May 1917. William Friedman, who became a Colonel in the Army, was sent to Europe, but Elizebeth had to stay home because women were generally not permitted near the front.

When William returned from Europe, he and Elizebeth moved to Washington, D.C., where William continued his career as chief cryptanalyst of the Army Signal Corps. Elizebeth became a stay-at-home mother to a son and a daughter. That changed when the Coast Guard asked her to decipher code used by rumrunners in smuggling liquor during Prohibition. Initially, she did the work at home, but later set up a unit at Coast Guard offices with her own staff. She also testified against organized crime figures.

As war raged in Europe, she developed code systems for the Office of Strategic Services, a precursor of the CIA. Meanwhile, at the Army Signal Corps, William was breaking the Japanese code known as Purple. They could not discuss their work with each other.

When the United States entered the Second World War, Elizebeth's unit at the Coast Guard was transferred to the control of the Navy. In 1942, a male naval officer was named head of the unit. Also in 1942, the Nazi spies switched to a code system using the coding machine Enigma. Elizebeth and her team cracked the codes of the spies, including the notorious Johnannes Siegfried Becker, code name "Sargo," who was plotting the overthrow of the governments of Brazil, Bolivia, Paraguay and Chile, as well as fostering greater cooperation between Argentina and Germany.

After the war, Elizebeth worked for the International Monetary Fund, creating a secure communications system.

By the 1950s, Elizebeth had retired. She turned her attention back to Shakespeare, where she and her husband finally could work together. In 1957, *The Shakespearean Ciphers Examined*, which they jointly authored, was published. They came to the conclusion that there were no ciphers.

*Submitted by Barbara Gonzo*

(This material was taken from the book *The Women All Spies Fear*, by Amy Butler Greenfield. Random House 2021.)