

SAGAL, Mary Helen (Sznyter). June 21, 1893–March 24, 1975.

UNIVERSITY OF CALIFORNIA (BA 1915, MA 1916, PhD 1918).

Mary Helen Sznyter was born in Woodhaven, New York, the only surviving child of three children born to Mary (Mogilska) (b. 1864) and Valentine Sznyter (1851–1948), both natives of Poland. In 1900 the family was living in Withee, Wisconsin, where her father was a farmer. Her parents had been married twenty years, and her father had immigrated to the United States in 1890 and her mother in 1891. At some point the family moved to California.

Mary Helen Sznyter graduated from Berkeley High School in June 1911 and did all of her undergraduate and graduate work at the University of California in Berkeley, starting in 1911 as a student in social sciences. The following year, on November 2, 1912, she married John Boleslaw Sagal, then a student in commerce at the university. John Sagal was born in about 1887 in Bialystok, Poland, apparently with the family name of Sawoinewsky according to his draft registration form for World War I. He was in residence at the University of California for the first half of 1912–13, and his name does not appear in later catalogues of students. In 1917 he was a surveyor's helper, and in 1930 he was a civil engineer in Alameda County, California.

Mary Helen Sznyter continued to use the name Sznyter as a student and on her mathematical publications. By 1912–13 she had switched from social sciences to natural sciences, and for the year 1913–14 she held a Levi Strauss scholarship for the third congressional district. She received her bachelor's degree from the University of California in 1915. The following year she was a graduate student and a reader in mathematics. She completed the work for her master's degree in May 1916 with a master's thesis directed by J. H. McDonald. A paper based on her thesis appeared in the *Monthly* the following year. The Sagals' only child, a daughter, Bernice Elizabeth, was born on April 21, 1916, a month before her mother received her master's degree.

Sznyter continued her studies at California, with her major subject mathematics and her minor subject astronomy. In the former she had Theory of Algebraic Surfaces with D. N. Lehmer, Theory of Functions of a Complex Variable with B. M. Woods and F. Irwin, Logic of Mathematics with B. A. Bernstein, Seminar in Mathematics with McDonald, and Elliptic Functions with C. A. Noble. In her minor subject, she had courses in Theoretical Astronomy and in Celestial Mechanics with A. O. Leuschner. She was again a reader in mathematics 1917–18, her final year at the University of California.

According to the mathematics department at the University of California, Mary Helen Sznyter's dissertation advisor was J. H. McDonald who chaired the committee for her public final examination in May 1918. In her dissertation she expresses her gratitude to D. N. Lehmer "whose course on algebraic surfaces of three dimensional space served to arouse the interest in the study of such surfaces and has been a foundation for much that is included here."

At the time of the census in 1930, John and Mary Sagal were living in Eden Township in Alameda County, California, with their thirteen-year-old daughter and Mary Sagal's widowed mother. No occupation was indicated for Mary Sagal. Their daughter, Bernice, received both a bachelor's degree and a master's degree from the

University of California, Berkeley, married, and worked as a laboratory technician before her retirement. She died in 2004.

Mary Helen Sagal taught in the Chowchilla School District for about twenty-five years according to the report made by her daughter on the death certificate. She died in 1975 as a result of colon cancer at the Eden Hospital in Castro Valley, California. She was cremated, and her ashes were placed in Irvington Memorial Cemetery in Fremont. Her husband had died in 1968.

Thesis and dissertation:

1916 [Sznyter, M. H.] Some metrical properties of the pentahedroid in a space of four dimensions. MA thesis, University of California, directed by John Hector McDonald. Typescript. See also **1917**.

1918 [Sznyter, M. H.] The hypersurface of the second degree in four-dimensional space. PhD dissertation, University of California, directed by John Hector McDonald. Printed version, 1924, reprinted from *Univ. Calif. Publ. Math.* 2 (1): 1–18.

Publications:

1917 [Sznyter, M. H.] Some metrical properties of the pentahedroid in a space of four dimensions. *Amer. Math. Monthly* 24:113–19. Published version of MA thesis.

1924 [Sznyter, M. H.] The hypersurface of the second degree in four-dimensional space. *Univ. Calif. Publ. Math.* 2 (1): 1–18. Published version of PhD dissertation. Review: *JFM* 50.0440.01 (E. Salkowski).

Other sources: Program for PhD final examination 1918; application for social security number 1969; University of California Archives; communications with Alameda County Library and with University of California, Berkeley, Archives; US Census 1900 WI, 1930 CA; California death certificate.

Last modified: July 20, 2009.