

WEISS, Marie J. September 21, 1903–August 19, 1952.

STANFORD UNIVERSITY (BA 1925, PhD 1928), RADCLIFFE COLLEGE (MA 1926).

Marie Johanna Weiss was born in Eugene, California, the youngest of three surviving children of Alice Hedwig (Buschke) and Frederick Weiss. Both parents were born in Germany, her mother in 1880 and her father in 1869; they immigrated to the United States in 1894 and 1884, respectively. At the turn of the century, they had been married three years, had a one-year-old daughter, and were living in Stanislaus County, California, where Frederick Weiss raised stock. By 1910 the family, with children Hedwig age eleven, Karl age nine, and Marie, owned their own farm and were living in Stockton, where they remained throughout Marie's university years.

Marie J. Weiss attended public grammar and high schools in Stockton, California, before going to Stanford University in the fall of 1921. While there she was a member of Roble Club, which was the women's dormitory; the German Club, of which she was vice president for two years; the Women's Education Club, of which she was secretary-treasurer her senior year; and the Zoology Club. In the summer of 1924, after her junior year, she served as an assistant in instruction in mathematics. She was elected to Phi Beta Kappa and graduated with great distinction in mathematics in 1925, one of eleven receiving BA's in mathematics at Stanford that year, eight of whom were women.

The following academic year Weiss studied at Radcliffe College, where she earned her master's degree, before returning to Stanford as a graduate student and university fellow in mathematics during the two years 1926–28. She was again an assistant in instruction and taught theory of functions in the summer of 1927. Her dissertation in group theory, directed by W. A. Manning, is dated August 1927. She received her PhD in June 1928. A published version of her dissertation appeared in 1928 and was mentioned in E. T. Bell's 1938 survey, "Fifty years of algebra in America, 1888–1938." It was one of very few papers chosen to "indicate the continued activity of men already in the field in 1907, the enlisting of new recruits, and the general nature of the problems considered" by those working in group theory (p. 13). Weiss was appointed to a National Research Council fellowship in mathematics for 1928–29 and was reappointed for the following year; she spent both years studying at the University of Chicago.

In 1930 the mathematics department at H. Sophie Newcomb College, Tulane University, underwent significant changes: Marie J. Weiss joined the faculty as assistant professor, [Nola Anderson \(Haynes\)](#) joined the department as associate professor and chair, and [Anna M. Howe](#) left Newcomb after eleven years as assistant professor. Weiss remained at Newcomb as assistant professor until 1936, except for 1934–35, when she was on leave to spend the year at Bryn Mawr College as Emmy Noether scholar and resident scholar in mathematics. Weiss was one of four graduate students and post-graduates (the others were [Ruth Stauffer \(McKee\)](#), [Grace Shover \(Quinn\)](#), and Olga Taussky) invited to study with Emmy Noether in her second year at Bryn Mawr and what turned out to be the last year of Noether's life. It was during this year that Weiss began work on a problem on units in fields that resulted in her 1936 paper.

Weiss returned to Newcomb College for the year 1935–36 but left in 1936 to take an assistant professorship at Vassar College. After two years at Vassar she returned to Newcomb as professor and chair when, in 1938, Nola Anderson left the Newcomb department to marry. Weiss remained in those positions the rest of her career there. She turned her attention to preparing a highly successful text and to participating in many professional activities in addition to administering the department and teaching at Newcomb. She was particularly active as a member of the MAA. She attended annual meetings regularly after receiving her PhD and was a member of the board of trustees 1937–38. She refereed papers for the *Monthly* from at least 1939 until 1946 and was associate editor 1940–46. In that role she was also editor of the Discussion and Notes section 1943–46. She was a member of the

Committee to Review Activities of the MAA 1938–40; was a member of the Conference Committee on Education 1941–44; and was governor-at-large 1950–52. Although not as active in the governance of the AMS, she presented six papers at meetings 1927–36, was appointed to the nominating committee in 1939, and gave a brief dinner talk at a meeting in Chicago the following year. Weiss was also active at the national level in AAUP, serving on the council 1940–42 and as second vice president 1948–50.

In an undated interview in her file in the Tulane archives, Weiss remarked on mathematics as a field for women. She noted that in the previous year eight women had received doctorates in mathematics in the US and Canada. She said, “Mathematics is an open field for women but few of the top positions—either in teaching or research—are held by women. . . . For the woman who desires a chance for a top position in either teaching or research, the doctorate is a union card. And top positions in either teaching or research form what is essentially a ‘closed shop.’”

Beginning in about February 1952 Marie Weiss became increasingly ill. While visiting her widowed mother and her brother in Visalia, California, in the summer of 1952 the illness worsened, and, after six days in the Langley Porter Clinic in San Francisco, Marie Weiss died, at age forty-eight, of congestive heart failure as a result of bacterial endocarditis. Weiss had been a Lutheran and is buried in Stockton, California. The Marie J. Weiss Memorial Scholarship Fund was established at Newcomb College in 1952.

Organizational affiliations: AMS, MAA, Sigma Delta Epsilon, AAUW, AAUP, Phi Beta Kappa, Sigma Xi.

Dissertation:

1927 Primitive groups which contain substitutions of prime order p and of degree $6p$ or $7p$. PhD dissertation, Stanford University, directed by William Albert Manning. Summary: *Stanford University, Abstracts of dissertations for the degrees of doctor of philosophy and doctor of education, with the titles of theses accepted for the degrees of engineer, master of arts, and master of science* 3: 117–19. See also **1928**.

Publications:

1928 Primitive groups which contain substitutions of prime order p and of degree $6p$ or $7p$. *Trans. Amer. Math. Soc.* 30:333–59. Published version of PhD dissertation. Reviews: *JFM* 54.0144.02 (R. Baer); *Rev. trimestr. publ. math.* 34, pt. 1: 44 (P. Mulder). Presented to the AMS, Berkeley, CA, 29 Oct 1927; abstract: *Bull. Amer. Math. Soc.* 34:18 #12.

1929 On groups defined by $A^q = 1$, $B^{-1}AB = A^x$, $B^Q = A^e$. *Proc. Nat. Acad. Sci. USA* 15:903–5. Review: *JFM* 55.0675.01 (E. Pannwitz). Presented to the AMS, Des Moines, IA, 30 Dec 1929; abstract: *Bull. Amer. Math. Soc.* 36:203 #137.

1930 The limit of transitivity of a substitution group. *Trans. Amer. Math. Soc.* 32:262–83. Review: *JFM* 56.0133.01 (L. Buchhorn). Presented to the AMS, Boulder, CO, 29 Aug 1929; abstract: *Bull. Amer. Math. Soc.* 35:767 #34.

1931 Review of *Elementary Theory of Finite Groups*, by L. C. Mathewson. *Amer. Math. Monthly* 38:279–80.

1934 On simply transitive primitive groups. *Bull. Amer. Math. Soc.* 40:401–405. Reviews: *JFM* 60.0086.04 (W. Specht); *Zbl* 009.30003 (W. Magnus). Presented to the AMS, Cambridge, MA, 27 Dec 1933; abstract: *Bull. Amer. Math. Soc.* 40:52 #81.

1936 Fundamental systems of units in normal fields. *Amer. J. Math.* 58:249–54. Reviews: *JFM* 62.0164.03 (H. Reichardt); *Zbl* 014.00602 (C. C. MacDuffee). Presented by title to the AMS, St. Louis, MO, 2 Jan 1936; abstract: *Bull. Amer. Math. Soc.* 42 (1, pt. 2): 36 #53.

1939 Algebra for the undergraduate. *Amer. Math. Monthly* 46:635–42. Presented to the MAA, Madison, WI, 4 Sep 1939; paper #1.

1940 Genius and youth in mathematics. *Sigma Delta Epsilon Newsl.* Presented to Sigma Delta Epsilon, Columbus, OH, 28 Dec 1939.

1943 Review of *Calculus*, by A. L. Newlson, K. W. Folley, and W. M. Borgman. *Amer. Math. Monthly* 50:195–96.

1944 Review of *Mathematical Recreations*, by M. Kraitchik. *Amer. Math. Monthly* 51:42–43.

1949 *Higher Algebra for the Undergraduate*. New York: John Wiley and Sons. Reviews: *Amer. Math. Monthly* 57:642–43 (R. M. Thrall); *Math. Gaz.* 34:230–31 (D. E. Littlewood). Second ed.: 1962. Rev. by Roy Dubisch. New York: John Wiley and Sons. Review: *Zbl* 102.25201 (K. Latt).

Abstract not listed above:

1931 The degree of simply transitive primitive substitution groups of class u . *Bull. Amer. Math. Soc.* 37:24 #46. Presented to the AMS, Cleveland, OH, 30 Dec 1930.

References to: AmMSc 5–8, AmWom 1935–40, BiDWSci.

“Noted Educator Taken by Death,” *Times-Picayune*, 26 Aug 1952.

“Dr. Weiss Dies in California,” *Tulanian*, Oct 1952.

Other sources: Owens questionnaires 1937, 1940; Stanford University Archives; Tulane University Archives; Bell “Fifty Years of Algebra in America”; US Census 1900, 1910, 1920, 1930 CA.

Last modified: July 20, 2009.