WHITE, Marion Ballantyne. March 28, 1871—January 30, 1958. University of Michigan (PhB 1893), University of Wisconsin (MA 1906), University of Chicago (PhD 1910).

Marion Ballantyne White was the third of five children of Jennie E. (McLaren) and Samuel Holmes White. Her mother was born in Glasgow, Scotland, in 1840 and was a teacher living in Chicago before her marriage in 1865. Marion White's father, also a teacher, was born in New York in 1830 and was a widower at the time of his marriage to Jennie McLaren. He held a bachelor's degree from the University of Michigan and a law degree from the Albany Law School. After finishing his education he was a principal of public schools in Chicago and then of the Peoria Normal School. He served in many important educational positions in Illinois and nationally. He edited the *Illinois Teacher* for eight years and was president of the Illinois State Teachers' Association; he was secretary of the National Education Association in 1866, 1872, and 1873, and was president in 1874. He died in 1882. Her siblings were older brothers, Samuel Dexter (ca. 1865–1941) and James McLaren (1867–1933); younger brother, Alfred Holmes (1873–1953), and sister, Jennie P. (b. 1876). Marion White was born in Peoria, Illinois, and did her precollege work in the public schools there.

White was a student at Smith College 1888–89 but left after one year and taught in one of the Peoria public schools 1889–90. She enrolled in the University of Michigan in October 1890 and graduated three years later, the same year as her younger brother, Alfred. The two years after her graduation, Marion White taught mathematics in the high school in Pueblo, Colorado. During 1895–99 and 1900–01 she taught mathematics in the Peoria high school. In the intervening year, 1899–1900, she traveled abroad with her mother and sister; the travels included Munich, where she studied in the winter.

Marion B. White was instructor of mathematics at the University of Illinois from 1901 to 1908. While she was at Illinois, the mathematics club was organized in 1902–03, and the first PhD was granted in 1903. White earned her master's degree at the University of Wisconsin in 1906 by studying there during three summers. After leaving Illinois she did her doctoral work at the University of Chicago from 1908 to 1910 and was a fellow her last year there. While in Chicago, White was living with her widowed mother and her younger sister, who was a high school teacher. Her dissertation was the third directed by G. A. Bliss, and White was the first student of Bliss who had not begun the dissertation under the direction of Heinrich Maschke or Oskar Bolza. White's dissertation in the calculus of variations appeared in the 1912 Transactions of the AMS; in a 1929 paper in the Bulletin of the AMS, Marston Morse mentioned her paper, noting that he did not use her results but thought them interesting.

In 1910 White joined the faculty at the University of Kansas as assistant professor. While there, she helped with a teacher placement bureau to assist graduates obtain teaching positions in secondary schools. In 1913–14, she was one of three faculty members to give a paper on integral equations to the department. In his history of the mathematics department at the University of Kansas, G. Baley Price includes a letter of March 18, 1914, to the dean from the department chairman who wrote, "The department believes that Professor Marion B. White is entitled to promotion to an associate professorship on account of her effective work in the department and in addition on account of her work and influence among the young women of the university, as well as her untiring energy in other lines of university activity" (607). Price also quotes Wilimina Everett Pitcher who recalls the university in the period 1903–11: "Marian [sic] White may have been an experiment. K.U. boys were not used to women in the math department. She was there because [John Wesley] Young brought her.... She was a very likable person" (674–75). Young left Kansas in 1911, only one year after White came and three years before she left.

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In 1914 Marion White moved to Michigan State Normal College (now Eastern Michigan University) in Ypsilanti, where she had been appointed associate professor of mathematics and dean of women. She served as dean for two years and associate professor four years. In 1918 she joined the faculty at Carleton College in Minnesota and remained there until her retirement at age sixty-six in 1937 because of the ill health of a relative. She was assistant professor 1918–30, dean of women 1922–24, and associate professor 1930–37. The Carleton alumni magazine notice of her death records that "she was an especially successful classroom teacher – known ... for the personal stimulus and encouragement she gave the students who passed through her classes.... She was personally an ardent participant in the work of many campus and community activities such as the Carleton Chapter of Phi Beta Kappa and the American Association of University Women." She served terms in 1931–32 and 1936–37 on the executive committee of the Minnesota Section of the MAA.

After her retirement in 1937, White moved to Pasadena, California, where she spent the last two decades of her life. She died at a local hospital in Pasadena in 1958 at age eighty-six. She was survived by a cousin in Pasadena and by six nieces and a nephew.

Organizational affiliations: AMS, MAA (charter member), AAUW, Phi Beta Kappa, Sigma Xi.

## Thesis and dissertation:

1906 The asymptotic lines on the anchor ring. MA thesis, University of Wisconsin. Typescript. See also 1907.

1910 The dependence of the focal point on curvature in space problems of the calculus of variations. PhD dissertation, University of Chicago, directed by Gilbert Ames Bliss. Printed version, 1912, New Era Printing Co., Lancaster, PA, reprinted from *Trans. Amer. Math. Soc.* 13:175–98.

## **Publications:**

1907 The asymptotic lines on the anchor ring. Ann. of Math. 2nd ser., 8:103–17. Published version of MA thesis. Reviews: JFM 38.0662.01 (P. Zühlke); Rev. semestr. publ. math. 16, pt. 1: 11 (W. A. Wythoff).

1912 The dependence of focal points upon curvature for problems of the calculus of variations in space. Trans. Amer. Math. Soc. 13:175–98. Published version of PhD dissertation. Reviews: JFM 43.0464.02 (H. Hahn) 43:464–65; Rev. semestr. publ. math. 21, pt. 1: 7–8 (P. Mulder). Presented by J. N. Van der Vries as "The dependence of the focal point on curvature in space problems in the calculus of variations" to the AMS, St. Louis, MO, 2 Dec 1911; abstract: Bull. Amer. Math. Soc. 18:234 #5.

## References to:

"Marion B. White." (Obituary) Carleton College Voice, n.d. Obituary. unidentified newspaper clipping.

Other sources: PhD dissertation vita 1912; Owens questionnaires 1937, 1940; Owens Papers; Carleton College Archives; University of Michigan Alumni Records Office; University of Wisconsin Memorial Library; communications with Carleton College Archives and Smith College Archives; Price, *History of the Department of Mathematics of the University of Kansas*; NatCAB 13 (White, Samuel Holmes); US Census 1860, 1870, 1880, 1900, 1910 IL, 1930 MN.

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