COLE, Margaret (Buchanan). August 18, 1885—September 10, 1959. West Virginia University (BA 1906), Bryn Mawr College (PhD 1922).

Margaret Buchanan was born in Clinton, Pennsylvania, the daughter of Sarah (Wiley) (b. 1858) and Aaron Moore Buchanan (b. 1856), natives of Pennsylvania. Her father graduated from Washington and Jefferson College in 1879 and from Western Theological Seminary in Pittsburgh, Pennsylvania, in 1882, the year her parents married. She was the second of three children; her brother, Joseph Kerr, was born in 1883 in Pennsylvania, and her sister, Mary B., was born in 1894 in West Virginia. Mary was deceased by 1910. Her father was a Presbyterian minister who moved from Pennsylvania to Morgantown, West Virginia, in 1886. He received the DD degree from Washington and Jefferson College in 1899.

From 1898 to 1902 Margaret Buchanan attended the preparatory school of West Virginia University at Morgantown before entering that university in 1902. While there she was one of a handful of women in her class. She was a member of the English club, Le Cercle Dramatique Francais, the YWCA, the athletic association, the yearbook board, the tennis club, the Athenaeum (student newspaper) board, and Kappa Delta sorority. She served as secretary of several of these organizations at least half a dozen times. Later, she was one of the founders of Beta Upsilon chapter of the social sorority Kappa Kappa Gamma there.

After Buchanan's graduation from West Virginia University in 1906, she taught mathematics for a year at Marshall College (then a state normal school, now Marshall University) in Huntington, West Virginia. She returned to West Virginia University in 1907 as a graduate student. She was an assistant in Greek and mathematics and taught in the university's preparatory school 1907–09. She was also an instructor of mathematics at the university 1909–12 before entering Bryn Mawr College for graduate study in 1912. She studied at Bryn Mawr College as a scholar in mathematics 1912–13, taught mathematics at the Baldwin School in Bryn Mawr 1913–14, taught mathematics in the high school at Parkersburg, West Virginia, 1914–15, and was instructor of mathematics at West Virginia University 1915–18. In the summer of 1918 she was a temporary office assistant on the scientific staff of the state geologist preparing the statistics and coal maps for the West Virginia geological survey of Webster County.

Buchanan returned to her graduate studies at Bryn Mawr College as a resident fellow in 1918–19 and as a graduate scholar in 1919–20, having attended the University of Chicago in the summer of 1919. She was awarded a President M. Carey Thomas European fellowship in 1918–19 for use the following year. She postponed that fellowship and was a resident scholar at Bryn Mawr 1919–20. She used the postponed fellowship and an Association of Collegiate Alumnae European fellowship in 1920–21 to study at the Sorbonne in Paris. While there she studied under Edouard Goursat, Henri Lebesgue, and Émile Picard in mathematics and under Marie Curie and M. Gabriel Lippmann in physics. She had previously traveled in Europe in the summer of 1910. In 1921–22 she finished her work for the PhD from Bryn Mawr as a fellow by courtesy, the first doctoral student of Anna J. Pell (Wheeler). Her doctorate, with a minor in physics, was awarded in June 1922.

Buchanan returned to the faculty of West Virginia University as assistant professor and was promoted to associate professor in 1925. She resigned her position to marry, on February 14, 1929, Harry Outen Cole (1874–1950). Cole was a native

Book Web Page COLE, M. B. - 2

of Morgantown, an 1898 graduate of West Virginia University, and a construction engineer who had, in the first decade of the century, played a role in the design of the Panama Canal. He had known Margaret Buchanan from the time she was a child since her father was the pastor of the Presbyterian church to which he belonged. He was widowed in 1921 and from about that time was president of Cole Bros. Construction Company in Morgantown.

In 1938 Margaret B. Cole again joined the faculty at West Virginia University and was instructor 1938–41, assistant professor 1941–52, associate professor 1952–55, and associate professor emeritus after her retirement in 1955 at age sixty-nine. A colleague at West Virginia University was Bird M. Turner with whom she had also overlapped as a graduate student at Bryn Mawr College.

As an active alumna of West Virginia University, Cole became the first woman president of the university's alumni association in June 1939 after serving four years on the alumni executive council. She joined the university alumni association's emeritus club, for alumni of fifty or more years, in 1956 and was vice president in 1958–59.

Margaret Buchanan Cole died in Morgantown in 1959, four years after her retirement. She was survived by her brother, a step-daughter, two nephews, and a niece.

Organizational affiliations: AMS, MAA.

Dissertation:

1922 [Buchanan, M.] Systems of two linear integral equations with two parameters and symmetrizable kernels. PhD dissertation, Bryn Mawr College, directed by Anna Johnson Pell (Wheeler). Printed version, 1923, Baltimore, MD, reprinted from *Amer. J. Math.* 45:155–85.

Publication:

1923 [Buchanan, M.] Systems of two linear integral equations with two parameters and symmetrizable kernels. *Amer. J. Math.* 45:155–85. Published version of PhD dissertation. Reviews: *JFM* 49.0289.03 (O. Toeplitz); *Rev. semestr. publ. math.* 31, pt. 1:4 (E. B. Cowley).

References to: AmMSc 4, 7–8, 9P.

"Alumni Elect First Woman President." West Virginia University Alumni Magazine, Summer 1939.

"Margaret Buchanan Cole, '06." (Obituary) West Virginia University Alumni Magazine, Fall 1959.

Other sources: PhD dissertation vita 1923; Bryn Mawr College Archives; communication with West Virginia University Archives; Maltby, *History of the Fellowships*; WhAm 3 (Cole, Harry Outen); US Census 1900, 1910, 1930 WV.

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