

**KARL, Sister Mary Cordia.** November 16, 1893–August 30, 1984.

HUNTER COLLEGE (BA 1916), JOHNS HOPKINS UNIVERSITY (MA 1927, PhD 1931).

Elizabeth E. Mary Karl was born in New York City, the eldest of four children of Mary Anna (Klarmann) (b. 1866) and Edward Philip Karl (b. 1865), both born in New York of German parents. Her father was an office clerk. In 1900 the family was living in the Bronx, and her parents had been married eight years. At that time there were three children: Elizabeth; Mary [Marie] (b. 1897), and Nicholas (b. 1899). Their daughter Frances was born in about 1901.

Elizabeth Karl attended Immaculate Conception School for eight years and then Normal College High School (later Hunter College High School) 1908–12. After her high school graduation she attended Hunter College, from which she graduated second in her class in January 1916 with a major in mathematics and minors in astronomy and physics. The lighthearted description of her in her college yearbook noted that “in spite of many years spent in this Institution of Learning, Elizabeth has not overcome her primitive fondness for folk-dancing. We think the reason is that she never tried” (Wisterion 1916, 30). It was later reported that she hoped to become a nun after graduation but that her father objected strongly. Karl taught in the New York City schools until 1918. She taught algebra and English at William Cullen Bryant High School in Long Island City, Queens, February 1916–February 1917; mathematics at Blessed Sacrament Academy in Manhattan February 1916–June 1917; and third grade at Public School 46 in the Bronx 1917–18.

In 1918 Elizabeth Karl entered the Order of the School Sisters of Notre Dame, whose motherhouse is in Baltimore, and took the name Mary Cordia. For most of the time from 1918 until her retirement in 1965, Sister Mary Cordia Karl was associated with the College of Notre Dame of Maryland, in Baltimore, a Roman Catholic women’s college, which was established in 1873 and which granted its first bachelor’s degree in 1899. She taught mathematics and education at the college 1918–20; mathematics, science, Latin, and history at Notre Dame High School in Baltimore, 1920–22; and mathematics and physics at the College of Notre Dame after September 1922.

In 1920 a chapter of Phi Beta Kappa was established at Hunter College, and the following year Sister Mary Cordia Karl was offered membership by the new chapter. However, as a novice she was unable to accept the invitation. In 1948 her election was reaffirmed and was announced by the Hunter College chapter president, [Jewell Hughes Bushey](#).

During most of the period from 1923 until 1931 Sister Mary Cordia was engaged in graduate work: in summer 1923 she studied at Fordham University; in fall 1923 she entered Johns Hopkins University, where she studied, usually part time, most of the next eight years. She took courses in physics in 1923–24, chemistry in 1924–25, and chemistry and mathematics in 1925–26. She also studied during the summers of 1925 and 1926 and during the academic year 1926–27. In June of 1927 she received a master’s degree, based on her course work and on a master’s essay on finite differences. She resumed her graduate work at Johns Hopkins in 1929 and finished her work for the PhD in 1931 with a dissertation, in which she used methods of projective geometry to recast a theory of orthopoles, written under the direction of Oscar Zariski, who had arrived at Johns Hopkins from Rome four years earlier and

who was not until some years later to introduce abstract algebra so decisively into his algebraic geometry.

Sister Cordia became head of the mathematics department at the College of Notre Dame in 1922, and in 1939 she hired one of her former students, [Mary Varnhorn](#), to teach there. Karl remained as head of the department until 1965. She was also the religious leader of the nuns at the college from 1959 to 1965. It appears that in 1964–65 she was not teaching but served as coordinator of the science building planning project. After her retirement in September 1965 she moved to the Notre Dame Preparatory School in Towson, Maryland, where she taught and served as financial officer and then as administrative assistant until her second retirement in 1982. Later she lived at Villa Assumpta and the Maria Health Care Center for retired and ill sisters.

Sister Mary Cordia Karl died at St. Joseph Hospital in Baltimore at age ninety in August 1984. In 1994 the first of the Sister Cordia Karl Mathematics Awards was conferred by the faculty of the mathematics department on an outstanding mathematics student. In 2004 an award was made by the National Science Foundation to fund a four-year program, The Cordia Karl Scholars Program, to support students studying computer science, computer information systems, engineering, or mathematics at the College of Notre Dame of Maryland.

**Organizational affiliations:** AMS, MAA, NCTM, Phi Beta Kappa.

**Thesis and dissertation:**

**1927** A problem in finite differences. MA thesis, Johns Hopkins University. Typescript.

**1931** The projective theory of orthopoles. PhD dissertation, Johns Hopkins University, directed by Oscar Zariski. Typescript. Printed version, 1932, reprinted from *Amer. Math. Monthly* 39:327–38.

**Publication:**

**1932** The projective theory of orthopoles. *Amer. Math. Monthly* 39:327–38. Published version of PhD dissertation. Reviews: *JFM* 58.0652.02 (A. Boy); *Zbl* 004.36107 (R. Moufang).

**References to:** AmMSc 7–8, 9P–11P; WhoAmW 8.

“Sister Mary Cordia Karl, Notre Dame Math Professor.” (Obituary) *Baltimore Morning Sun*, 4 Sep 1984.

“Sister Mary Cordia, 90, Professor.” (Obituary) *Baltimore Sun*, 4 Sep 1984.

“Sr. Mary Cordia, Mathematician, Dies.” *Catholic Review*, n.d.

**Other sources:** MA thesis vita 1927; PhD dissertation vita 1931; Owens questionnaire 1937; Owens Papers; Johns Hopkins University Archives; communication with College of Notre Dame of Maryland Archives; *The Wisterion*, New York: Junior Class of Hunter College, 1916; “Phi Beta Kappa Unit Picks 50 at Hunter,” *New York Times*, 28 Apr 1948; US census 1900, 1910, 1920, 1930 NY, 1930 MD.

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