

SULLIVAN, Sister M. Helen. April 10, 1907–December 22, 1998.

ST. BENEDICT'S COLLEGE (BA 1930), CATHOLIC UNIVERSITY OF AMERICA (MA 1931, PhD 1934).

Monica Elizabeth Sullivan was the fourth of nine children of Mary E. (Majerus) (1876–1947) and John Edward Sullivan (b. 1873), both from Rulo in the southeastern corner of Nebraska. Her mother graduated from high school in nearby Falls City; her father attended Nebraska State Normal School (now Peru State College) and St. Benedict's College in Atchison, Kansas. He was a teacher for eight years before becoming a banker, land owner, and community leader in Kansas. Her parents were married in 1897 and lived in Rulo until after the birth of their second son in 1903. The family then moved across the state line to Effingham, Kansas, where the seven youngest children were born. The other children in the family were: Paul Justin (1899–1950), Leo Bernard (1903–1978), Nellie C. (1905–1980), Edward Stephen (b. 1909), Agnes (1912–1987), Mary Margaret (Sister Bede) (1915–1993), Rita (b. 1917), and Teresa Catherine (b. 1920). Of these, all had some college education, one became a priest, and one became a Benedictine Sister.

Elizabeth Sullivan attended parochial schools in Kansas: in Effingham 1913–19, at St. Peter's parish grade school in Mercier 1919–20, and at Mount St. Scholastica Academy in Atchison 1921–25. After graduating as class valedictorian in 1925, she attended Mount St. Scholastica Junior College 1926–28 and then St. Benedict's College 1928–30. Mount St. Scholastica did not grant degrees as a senior college until 1932.

Sullivan joined the Benedictine Sisters in 1925, professed into the Order of St. Benedict in 1930, and as Sister Mary Helen Sullivan continued her studies at the Catholic University of America. In 1981 she described the situation at that time.

As a young sister, just as I was finishing college, my superior called me and said she would like me to go into physics, and I said, "physics?" Then she said, "Well, what do you like?" And I said, "Well, I like languages and philosophy." She said, "Well, we need somebody in physics." So I said, "Well, okay I'll give it a try." So I went to Catholic University and I got my master's in physics in '31. I learned, meanwhile, that you build your own equipment and you do this sort of thing. It wasn't very enticing to think I was going to be engaging in building equipment when I got this degree. So I talked to her and also I got ill for a period in there, and I think she realized that probably this was going to be too much of a strain. So, we talked to the dean of the graduate school and . . . it was no problem to switch me over to math. (Smithsonian meeting tapes)

Three years after receiving her master's degree, she earned her doctorate in mathematics with a dissertation directed by Aubrey E. Landry and with a minor in physics and mechanics.

After receiving her PhD in 1934, Sister M. Helen Sullivan returned to Mount St. Scholastica College, where she had taught in the summer of 1931. She reported in 1981 that "one of the advantages of going into a religious community is you don't have to seek your jobs; I was assigned. I came home with my degree and started teaching everything in the program that I could handle. I taught fifteen hours my first year and believe you me it wasn't easy. It is probably one of the reasons I had to have sick leave. . . (Smithsonian meeting tapes 1981). [Emma Olson](#) replaced her and served as acting head of the department second semester 1934–35, and [M. Gweneth Humphreys](#) replaced Sister Helen as head of the department 1935–36. Sister Helen was away during two more early periods because of illness.

Sister Helen remained at the college, except for leaves, sabbaticals, and other experiences, until 1970, after which Mount St. Scholastica and St. Benedict's officially merged to

become Benedictine College. She was instructor 1934–37, assistant professor 1938–45, professor 1945–70, and professor emeritus after 1970. Sister Jo Ann Fellin, retired Benedictine College faculty member, relayed to one of the authors that in addition to two sabbatical leaves at universities, Sister Helen was away 1937–38, 1945–46, and 1954–57, and that at two intervals she “was assigned to administrative work as principal in Louisiana, Iowa, and Kansas.”

Sister Helen was chairman of the mathematics department 1934–54 and after her return from a three-year leave in 1957; she was chairman of the division of mathematics and natural sciences 1963–70. In about 1936 she organized Euclid’s Circle, the mathematics club that preceded the founding by her in 1940 of the Kansas Gamma chapter of Kappa Mu Epsilon. In 1981 Sister Helen wrote that, “my entire teaching career has been both successful and happy. Of special significance to me was my Undergraduate Research Program funded by N.S.F. [1963–67]. Because of this, students of mine had eighteen published papers. Our mathematics program was an Honors Program and we have many Master’s Degrees and seven or eight doctorates. This, I feel, is unusual for a small liberal arts college for women in the mid-West” (Smithsonian questionnaire). Furthermore, during her last few years there, Sullivan was the campus coordinator of the junior year abroad program for the Institute of European Studies.

During the period Sister Helen was at Mount St. Scholastica College, she engaged in post-doctoral study, held a number of visiting positions, and participated in various national professional organizations. She engaged in research and study at Université Laval, Quebec City, Canada, summer 1950; the University of Oklahoma, Norman, summer 1962; and Clare College, Cambridge University, England, summer 1964. She was a visiting professor at Loyola University (then referred to as Loyola University of the South and now officially Loyola University New Orleans) 1948–49 and summer 1949. During that summer she taught using her notes, “The Christian Approach to Science: A Philosophic Integration for Science Majors in Liberal Arts Colleges.” A copy of these typewritten notes is among the papers Sullivan donated to the Smithsonian Institution in 1981. In the summers of 1953 and 1954 she was a visiting professor at Fort Smith Junior College (now University of Arkansas Fort Smith), and in summer 1968 she was also a visiting professor at Wesleyan University in Connecticut.

Sullivan was an NSF visiting lecturer in the graduate school of the University of Detroit in summers 1960 and 1963 and taught in NSF summer institutes at Rosary Hill College in Buffalo, New York, in 1965, and at Claflin University, a historically black university in Orangeburg, South Carolina, in 1965 and 1966. Also in 1966 she took a course at Rockhurst College in Kansas City, Missouri, and participated in workshops at Argonne National Laboratory near Lemont, Illinois, in order to be able to introduce a computer course at Mount St. Scholastica. She was visiting professor at the University of Minnesota and, part time, at the College of St. Catherine in St. Paul, Minnesota, during 1964–65 while on sabbatical leave. While in Minnesota, Sullivan participated in the NSF sponsored College Geometry Project as part of a textbook writing team.

During the 1960s Sullivan’s activities were reported in the Mount St. Scholastica Kappa Mu Epsilon periodical *The Exponent*. The October 1965 issue noted that

Sister Helen spent six weeks this summer teaching in a N.S.F. Institute at Claflin University She taught two sections of “Foundations of Modern Mathematics” to 65 Institute members, all of whom were Negroes.

When asked how she received this assignment, Sister Helen explained that she had remarked last March in St. Paul that she would rather teach the Negro than join in a “Sympathy-for-Selma” march. A few days later she received a letter asking her to do just that at Claflin University. (p.

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Among her many professional activities were several sponsored by NSF. In addition to her involvement with the undergraduate research program at Mount St. Scholastica and the visiting lectureships noted above, she was NSF visiting lecturer for high schools in Kansas; she was a participant in three NSF institutes for college teachers of mathematics; she was a member of an eight-person writing team at the University of Minnesota to produce college geometry materials; and she served on NSF panels to read and evaluate proposals in Washington, D.C.

Sister Helen was also active in mathematical organizations. Her work with MAA included contributing to the *Guidance Pamphlet* issued by the Post-War Commission of the MAA, serving on the state committee appointed by MAA to evaluate standards proposed by CUPM for undergraduate mathematics programs, and serving as the vice chairman of the Kansas Section 1946–47 and chairman 1947–48. She was often faculty sponsor of the Mount St. Scholastica chapter of the mathematics honor society Kappa Mu Epsilon. A scholarship was established in 1965 by the alumnae of the Kansas Gamma Chapter of Kappa Mu Epsilon and named the Sister Helen Sullivan scholarship in her honor in 1967. Her contributions to the national Kappa Mu Epsilon, which included serving as national historian 1943–47 and as assistant editor of its journal *Pentagon* 1943–47 and 1961–70, were first recognized when she was named one of fifty Distinguished Members of KME at their fiftieth anniversary celebration in 1981. Ten years later KME honored her with the George R. Mach Distinguished Service Award.

After Sullivan left Mount St. Scholastica College in 1970, she held a variety of teaching, studying, and administrative positions both abroad and in this country. In the spring of 1970, as a member of an international curriculum committee of the Institute of European Studies, she made on-site evaluations of study centers of some major European universities. In the summer of 1970 she was an American consultant in mathematics for US AID at the University of Aurangabad, India. This was followed by a year on sabbatical leave, 1970–71, as visiting professor under the International Cultural Exchange in Ireland at University College, Galway. The following year she was consultant, academic counselor, and tutor in mathematics at the Institute of European Studies at the University of Vienna in Austria.

After returning to this country she served as director of development at Lillis High School in Kansas City 1972–73 and as assistant director, Diocesan Office of Education in Billings, Montana, 1973–75. The following year she engaged in graduate study in theology at Gonzaga University in Seattle.

In 1976 Sister Helen moved to Berkeley, California, where she remained for most of the next decade. While there she was research assistant to the dean and faculty, Jesuit School of Theology, 1976–77; assistant to the president, Graduate Theological Union, 1977–78; assistant to the president of the School of Applied Theology 1978–79; and development research specialist for Catholic Charity Services in Oakland 1978–81. In the early 1980s, she was a member of spiritual direction and retreat teams at the School of Applied Theology in Berkeley.

Sister Helen Sullivan returned to Atchison, Kansas, in 1985 and lived in the Dooley Center, a care facility at Mount St. Scholastica Monastery. She died there in 1998 at age ninety-one. Burial was in the Sisters' Cemetery.

Organizational affiliations: AMS, MAA, NCTM, AWM, Math. Assoc. of Great Britain, Amer. Phys. Soc., Nat. Council of Administrative Women in Ed., AAUP, Pi Mu Epsilon, Kappa Mu Epsilon.

Thesis and dissertation:

1931 A critical study of cosmic rays. MA thesis (physics), Catholic University of America. Typescript.

1934 The number and reality of the non-self-symmetric quadrilaterals in and circumscribed to the rational unicuspidal quartic with a line of symmetry. PhD dissertation, Catholic University of America, directed by Aubrey Edward Landry. Printed for The

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Review: *JFM* 60.1272.04 (O. H. Keller).

Publications:

- 1938** Retracing "Euclid's Circle." *Sci. Counselor* 4 (3): 70,85–86.
- 1943** A seminar plan in mathematics. *Natl. Math. Mag.* 17:170–73.
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- 1947** Mathematics for women. *Catholic Ed. Rev.* 45:160–65. Presented to the MAA and the Kansas Assoc. of Teachers of Mathematics, Emporia, 13 Apr 1946; abstract: *Amer. Math. Monthly* 54:67–68 #2. Reprint of abstract: In *A Century of Mathematics Through the Eyes of the Monthly*, ed. John Ewing, 171. Mathematical Association of America, 1994.
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- 1950** Bede, the scientist. *Benedictine Rev.* 5 (2): 39–42.
- 1951a** A philosophic synthesis of the sciences. *Catholic Ed. Rev.* 49:21–27.
- 1951b** A realistic view of differential calculus. *Math. Mag.* 24:101–103.
- 1952** *An Introduction to the Philosophy of Natural and Mathematical Sciences*. New York: Vantage Press. Successor to **1949**. Reviews: *Benedictine Rev.* 7 (2): 69–70 (Rev. E. Kilzer); *Amer. Benedictine Rev.* 5 (1): 80–81 (W. A. Coggin). Rev. ed.: 1960. New York: Vantage Press.
- 1956** Quantitative thinking - a correlating factor. *Catholic Educator* 27:224–27,240.
- 1967** Geometry, Analytic. In *New Catholic Encyclopedia*, 6:352–53. New York: McGraw-Hill.
- 1971a** A "Canterbury Tale": Impressions of an American Benedictine sister. *The Benedictines* 26:62–68.
- 1971b** Catholicism in Ireland, as I see it. *The Furrow* 22:615–21.
- 1973** The experimental college: a cool medium. *Improving College and University Teaching* 21:265–68.

Abstracts not listed above:

- 1950** A philosophic synthesis of the sciences. *Amer. Math. Monthly* 57:590 #5. Presented to the MAA, Pittsburg, KS, 22 Apr 1950.
- 1955** Some philosophic considerations of mathematics. *Amer. Math. Monthly* 62:618. Presented as invited address to the MAA, Winona, MN, 7 May 1955.
- 1959** A geometric number system. *Amer. Math. Monthly* 66:629 #1. Presented to the MAA, Salina, KS, 11 Apr 1959.

References to: AmMSc 10P–11P; AmMWSc 12P; WorWhoW 5.

Related manuscript materials: Sister Helen Sullivan Collection (1993.3019), Material Collected at August 31, 1981, Meeting of Women PhDs, Mathematics Collections, National Museum of American History, Smithsonian Institution, Washington, DC.

Other sources: PhD dissertation vita 1934; Owens questionnaire 1940; Smithsonian questionnaire 1981; Smithsonian meeting tapes 1981; communications with Jo Ann Fellin, OSB, and with University of Oklahoma Office of the Senior Vice President and Provost; Jo Ann Fellin, OSB, "History and Information, Kansas Gamma Chapter, Kappa Mu Epsilon"; US Census 1900, 1910, 1920, 1930 KS.