

**COLE, Nancy.** October 15, 1902–July 7, 1991.

VASSAR COLLEGE (BA 1924), RADCLIFFE COLLEGE (MA 1929, PhD 1934).

Nancy Cole was born in Boston, Massachusetts, the only child of Gertrude (Groe) (1870–1949) and Albert Henry Cole (1868–1925), both of Massachusetts. Ancestors of her mother had come to Plymouth on the Mayflower in 1620; those of her father had come to Plymouth in 1630. Her mother, a normal school graduate, and her father, a high school graduate, were married in 1898. Her father was in the grocery business.

Cole graduated from high school in Plymouth, Massachusetts, in 1919 and studied there as a post-graduate an additional year before entering Jackson College, the coordinate women's college associated with Tufts College (now University) at that time. She was at Jackson College with a Whiting scholarship 1920–22. She then attended Vassar College for two years and received her bachelor's degree in 1924.

From 1924 to 1926, Cole taught algebra and geometry to students preparing for college at the Oxford School in Hartford, Connecticut. In 1926–27 she studied at Radcliffe College, and the following year she taught at Vassar as an instructor. Cole studied at Radcliffe 1928–29 while also working as a tutor there. She received her master's degree in 1929 and continued as a student at Radcliffe with scholarship assistance through 1931. In 1930 she and her widowed mother were living in Cambridge, Massachusetts, although they maintained the family home in Plymouth.

Cole was an instructor at Wells College 1931–32. On February 20, 1933, she replied to a note from [Eugenie Morenus](#) who had inquired about her interest in a position at Sweet Briar College. Cole wrote, "I am in Plymouth this winter, writing my thesis and working on Professor Morse's Colloquium Lectures on the Calculus of Variations in the Large. Perhaps I have told you before, that for the latter I do the typing, fill in the formulae, and check the mathematics" (Faculty Files, Sweet Briar College Archives). Morse was also her dissertation advisor.

In the fall of 1933, Cole took a position as instructor at Sweet Briar College in Virginia, where, except for leaves, she remained for a decade. She replaced [Ethel Moody](#), a 1930 Cornell PhD who left Sweet Briar for a position at Pennsylvania State College. The department head at Sweet Briar was Eugenie Morenus, a 1922 Columbia PhD who had been at Sweet Briar since 1909.

Over the two-year period 1932–34 Cole finished her graduate requirements and received her PhD from Radcliffe in 1934. She served as acting department head at Sweet Briar in 1934–35 and in 1941–42. While teaching at Sweet Briar, Cole was a member of the Virginia Academy of Science. She also regularly attended meetings of the AMS, a practice she continued until about 1950.

Cole began a leave from Sweet Briar in February 1943 to take a wartime appointment as visiting assistant professor and then visiting associate professor at Kenyon College in Gambier, Ohio. Her first full year at Kenyon, she was lecturer and teacher in mathematics in the Pre-Meteorology Program for the Army Air Force, and was a teacher in the Army Specialized Training Program from February until July 1944.

Nancy Cole resigned from Sweet Briar in May 1944 and after leaving Kenyon was assistant professor at Connecticut College for Women 1944–47. In 1947 she took a position as assistant professor at Syracuse University, where she was to remain the rest of her career. [Ruth Wyckliffe Stokes](#), who had earned a PhD from Duke in 1931,

had joined the faculty at Syracuse the previous year, also as assistant professor. At Syracuse, Cole was assistant professor 1947–52, associate professor 1952–71, and associate professor emeritus after her retirement in 1971. In addition to her standard undergraduate teaching, Cole taught courses in finance, statistics, probability, statics, dynamics, vector analysis, and higher mathematics for engineers and physicists to undergraduates and some graduate students, and calculus of variations to graduate students. In March 1980 she was called back to take over an advanced calculus class when a colleague died suddenly. She reported that it was “a stimulating experience after nine years of retirement!” (Smithsonian questionnaire 1985).

In her 1985 questionnaire Cole also reported that her interest in mathematics was stimulated first by her high school geometry teacher Lucia Richardson; then by Tufts professor Edith L. Bush; by the chair of the mathematics department at Vassar, Henry Seely White; and by the several Harvard faculty members with whom she studied while doing her graduate work at Radcliffe.

Cole was a reader of the mathematical attainment test for the College Entrance Exam Board 1938–41 and served on the promotion and services committee of the Association of Mathematics Teachers of New York State 1958–65. She also held various offices with the Syracuse chapters of Phi Beta Kappa, Sigma Xi, and Sigma Delta Epsilon. For the twenty-year period before her retirement, Cole was the permanent faculty secretary of the local chapter of Pi Mu Epsilon, the national mathematics honor society, which was founded in 1914 at Syracuse.

Cole traveled extensively and attended the International Congresses of Mathematicians in Oslo (1936); Cambridge, Massachusetts (1950); Edinburgh (1958); Stockholm (1962); Nice (1970); Vancouver, British Columbia (1974); Helsinki (1978); and Berkeley (1986). In 1983 she traveled to the People’s Republic of China as a member of a delegation of American university mathematics education specialists organized by People-to-People International to participate in a bilateral technical exchange with their Chinese professional counterparts.

In 1985 Cole described her political affiliation as Independent and her hobbies as hiking and swimming. From 1950 she was affiliated with the Foundation for Christian Living, now the Peale Center for Christian Living, in Pawling, New York. She was also a member of the Antiquarian Society of Plymouth, Massachusetts, from before 1950 and of the Pilgrim Society in Plymouth after 1961.

Nancy Cole died of a heart attack in her home in Plymouth, Massachusetts, at the age of eighty-eight in 1991. She was survived by a cousin and three second cousins. A memorial service was held at the Chiltonville Congregational Church in Plymouth. Philip Church ended his 2002 biography of Cole for the Syracuse department website by noting that “she was a good and thoughtful colleague and a very fine teacher.”

**Organizational affiliations:** AMS, MAA, AWM, AAAS (fellow), AAUP, AAUW, Sigma Delta Epsilon, Phi Beta Kappa, Sigma Xi, Pi Mu Epsilon.

**Thesis and dissertation:**

**1931** Elementary divisors and the classification of quadratic forms. Minor thesis, Radcliffe College.

**1934** The index form associated with an extremaloid. PhD dissertation, Radcliffe College, directed by Marston Morse. Summary: *Radcliffe Summaries of Theses*, 1931/1934, 152–59.

**Publication:**

**1940** The index theorem for a calculus of variations problem in which the integrand is discontinuous. *Amer. J. Math.* 62:249–76. Reviews: *JFM* 66.0479.02 (J. Radon); *MR* 1,243d (M. Morse); *Zbl* 025.05902 (E. Hölder). Presented by title to the AMS, Washington, DC, 27 Apr 1940; abstract: *Bull. Amer. Math. Soc.* 46:411 #251.

**Abstract not listed above:**

**1941** On a problem in the calculus of variations. *Amer. Math. Monthly* 48:2 #3. Presented to the MAA, Richmond, VA, 11 May 1940.

**Presentation not listed above:**

The index form associated with an extremaloid. Presented to the Virginia Acad. of Sci., Lexington, 2 May 1936.

**References to:** AmMSc 6–8, 9P–11P; AmMWSc 12P, 13P, 14–18; WhoAmW 1–6; WhoE 21, 23.

“Nancy Cole, 88; Was Professor of Mathematics.” (Obituary) *Boston Globe*, 13 Jul 1991. Church, Phil. [“Nancy Cole.”](#) Department of Mathematics at Syracuse University, 24 May 2002.

**Other sources:** Owens questionnaires 1937, 1940; Smithsonian questionnaire 1985; communication with Sweet Briar College Archives; US Census 1910, 1920, 1930 MA.

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