LEWIS, Florence P. September 24, 1877–March 10, 1964.

University of Texas (BA 1897, MA 1898), Radcliffe College (MA 1906), Johns Hopkins University (PhD 1913).

Florence Parthenia Lewis was born in Fort Scott, Kansas, the daughter of Monimia (Chase) (ca. 1851–1923) and Walter Felix Lewis (1846–1903), who married in 1872. Her parents were both born in Missouri, and her paternal grandfather was a judge of the Supreme Court of Missouri. By the time of the 1900 census her mother had had seven children, six of whom were living. The children were Walter Howard (b. 1873), George Chase (b. 1876), Florence Parthenia, Francis Ann (b. 1884), Susan Elizabeth (1885–1967), Walter Felix (b. 1889), and Eugene Grayson (b. 1896). The six youngest were still living in 1900.

Lewis attended high school in Austin, Texas, and entered the University of Texas as a sophomore with advanced standing in 1894. When she entered she was in the group leading to a bachelor of literature; her last two years she was in the program leading to the bachelor of arts degree. Her first two years at the University of Texas she held the high school scholarship from Austin High School, which was given annually to the graduate of each affiliated high school with the highest standing in the class, and which carried with it exemption from all matriculation or tuition fees. Lewis graduated from the university in 1897; her obituary states that her degree was in classics. She later noted in her dissertation vita that when she received her degree "Dr. G. B. Halsted was professor of mathematics." In a 1922 obituary of Halsted by H. Y. Benedict, excerpted in the *Monthly*, Lewis is referred to as one of Halsted's "great pupils" (29:352).

Lewis remained at Texas 1897–98 as a graduate student with major subjects mathematics, philosophy, and pedagogy. Her master's degree in 1898 was awarded in philosophy. In a letter to E. F. Buchner of January 21, 1911, S. E. Mezes, then president of the University of Texas, described her work as his student during the year 1897–98 and noted that she did work in Greek and mathematics that year as well as in philosophy. Of her work in the philosophy courses he wrote that "one dealt with the history of Philosophy, and the other was a seminary course of an advanced character and, as nearly as I can remember, dealt with some fundamental logical problems. As to the quality of Miss Lewis' work, I can speak with certainty. No student I have taught had a better mind or more interest in Philosophy. I am not given to extravagance of statement, but if I were I would employ it with regard to her" (student files, The Ferdinand Hamburger Archives of the Johns Hopkins University).

After receiving her master's degree, Lewis spent the next year, 1898–99, as a fellow in philosophy at Bryn Mawr College. In 1899–1900 she was a traveling fellow from Bryn Mawr; she studied a half year at the Sorbonne and, during the summer quarter, at Zürich. Her work that year included lectures and reading on the philosophy of Spinoza by Lévy-Bruhl, study of Aristotle (in Greek), a Kant seminar, and some lectures on experimental psychology.

After Lewis's return from Europe, it appears that she taught for a year in Mississippi. She then returned to the University of Texas where she remained for the next four years. She was listed in the university catalogues as a graduate student in mathematics 1901–02, a graduate student and a tutor in mathematics 1902–03, and a tutor in mathematics 1903–05. For 1905–06, she was listed as a tutor

Book Web Page LEWIS - 2

in mathematics, absent on leave. During that year she earned her master's degree in mathematics at Radcliffe College after which she returned to Texas for a final year as tutor in pure mathematics. As tutor in mathematics, Lewis taught regular mathematics courses. For example, her last year at Texas she taught an introductory mathematics course that included solid geometry, plane trigonometry, and algebra with an introduction to analytic geometry; she also taught algebra, which included theory of equations, determinants, symmetric functions, and theory of polynomials.

In 1907 the trustees of Johns Hopkins University voted to open graduate courses to women. In September of that year Clara Latimer Bacon and Florence Parthenia Lewis both applied for admission to the graduate program in mathematics at the Johns Hopkins University. Bacon, on the faculty at Woman's College of Baltimore (Goucher College after 1910) since 1897, became in 1911 the first woman to be granted a PhD in mathematics from Johns Hopkins. Lewis began her graduate studies at Johns Hopkins with mathematics as her major and the history of philosophy and psychology as subordinate subjects. She studied full time during 1907–08 and joined Bacon on the faculty at Woman's College as instructor in the fall of 1908. Lewis took two courses at Johns Hopkins in 1908–09, remained at Woman's College, and was again a full-time student at Johns Hopkins during 1911–12. In January 1911 Lewis made application for her PhD. A few days later the committee on instruction in the department of philosophy, psychology, and education accepted the records of advanced work previously done by her at Texas, Byrn Mawr, the Sorbonne, and Zürich. She received her PhD, the second granted to a woman in mathematics by Johns Hopkins, in 1913 with a dissertation in algebraic geometry written under the direction of Frank Morley.

When Lewis joined the mathematics faculty at Woman's College of Baltimore in 1908, the other faculty members were Bacon and William H. Maltbie. Maltbie, who had earned a law degree, left the following year to practice law. Except for brief appointments of instructors, Bacon and Lewis were the mathematics faculty until they were joined in 1925 by Marion M. Torrey, at that time a recent Cornell PhD. While Bacon and Lewis were on the Goucher mathematics faculty, nine women graduated who later received PhD's in mathematics, six from Johns Hopkins.

Except for two leaves of absence, Lewis spent her entire career at Goucher. She was promoted from instructor to assistant professor in 1912, to associate professor in 1914, to professor in 1922, and to professor emeritus upon her retirement in 1947. Lewis spent her second leave of absence in 1918–19 at Wellesley College in an exchange with Clara E. Smith. She was well respected in the mathematical community and served on the council of the AMS 1921–23, the first woman since Charlotte A. Scott last served at the turn of the century. She also was a member of the honorary committee that arranged a meeting in honor of Scott in 1922. Lewis served as chairman of the Goucher mathematics department from 1931 to 1943. In addition to teaching mathematics, she was responsible for the founding of Goucher's astronomy program within the mathematics department and maintained memberships in the American Astronomical Society and the Astronomical Society of the Pacific. In 1954, seven years after she retired, the six-inch refracting Florence P. Lewis telescope was installed at Goucher.

Lewis and Bacon were both charter members of the MAA, and for various periods from the early 1920s through the early 1940s, Lewis served on the executive committee of the Maryland-District of Columbia-Virginia Section of the MAA. During

Book Web Page LEWIS - 3

the late 1910s and the early 1920s she regularly submitted problems, mostly in geometry, that were published in the *Monthly*. In 1932 she attended the International Congress of Mathematicians in Zurich. She also served on the executive committee and the council of the AAUP.

Lewis remained in Baltimore, except for trips abroad, after her retirement. She was able to live in her apartment until illness required that she be in a nursing home for several weeks before her death in Baltimore at eighty-six in 1964. In a memorial article in the *Goucher Alumnae Quarterly* in Spring 1964, Helen Dodson Prince, a former student and a distinguished astronomer at the University of Michigan, recalled the "experience in which we met a new-found joy in things of the mind and spirit . . . [that] abounded in Dr. Lewis's classrooms. The source or cause of this special air I do not know, but I suspect it stemmed in large measure from Dr. Lewis's wide-ranging interests and curiosity. For her, all academic disciplines were fair game for personal inquiry and investigation." Prince also wrote, "Again and again I have found myself coming back to something that can perhaps best be described as 'sheer delight'—a delight that seemed to permeate her relationship with subject matter as well as with students."

Organizational affiliations: AMS, MAA (charter member), Amer. Astronom. Soc., Astronom. Soc. of the Pacific, AAAS, AAUP, Phi Beta Kappa.

Dissertation:

1913 A geometrical application of the theory of the binary quintic. PhD dissertation, Johns Hopkins University, directed by Frank Morley. Typescript. Printed version, 1914, reprinted from *Amer. J. Math.* 36:333–56.

Publications:

1911 A geometrical application of the binary quintic. *Johns Hopkins Univ. Circular* 2:84–93. Review: *JFM* 42.0132.01 (F. Meyer).

1914 A geometrical application of the theory of the binary quintic. *Amer. J. Math.* 36:333–56. Published version of PhD dissertation. Reviews: *JFM* 45.0821.01 (W. Fr. Meyer); *Rev. semestr. publ. math.* 23, pt. 1: 3–4 (E. B. Cowley).

1920 History of the parallel postulate. *Amer. Math. Monthly* 27:16–23. Presented to the Assoc. Teachers Math. in New England, Boston, MA, 3 May 1919. Reprint: 1979. In *Selected Papers on Geometry*, ed. A. K. Stehny, T. K. Milnor, J. E. D'Atri, and T. F. Banchoff, 6–12. Mathematical Association of America.

1948 Clara Latimer Bacon: Aug. 23 [sic], 1866–April 14, 1948. Goucher Alum. Quart. (Spring): 19–22.

Presentations not listed above:

On the Missouri system of grading students. Presented to the MAA, Washington, DC, 14 May 1918.

With Dr. G. H. Cresse. Report of summer meeting of the Association at Ann Arbor, Mich. Presented to the MAA, Washington, DC, 6 Dec 1919.

Mathematical aspects of a theory of the frequency distribution of species. Presented to the MAA, Baltimore, MD, 10 May 1930.

References to: AmMSc 5-8, 9P-10P; BiDWSci.

"Telescope to Be Dedicated," New York Times, 17 Oct 1954.

"Dr. F. P. Lewis Funeral Set," Baltimore Sun, 12 Mar 1964.

Prince, Helen Dodson. "Florence P. Lewis." (Obituary) Goucher Alumnae Quarterly, Spring 1964, 18.

Other sources: PhD dissertation vita 1913; Center for Research Libraries College Catalog Collection (University of Texas catalogs); The Ferdinand Hamburger Archives of the Johns

Book Web Page LEWIS - 4

Hopkins University; Cockey, "Mathematics at Goucher"; A. C. Lewis, $\it The\ Building\ of\ the\ University\ of\ Texas\ Mathematics\ Faculty;\ US\ Census\ 1880\ KS,\ 1900\ TX,\ 1920\ MO.$

Last modified: March 8, 2009.