BACON, Clara L. August 13, 1866–April 14, 1948.

HEDDING COLLEGE (PhB 1886), Wellesley College (BA 1890), University of Chicago (MA 1904), Johns Hopkins University (PhD 1911).

Clara Latimer Bacon was born in Hillsgrove, Illinois, the daughter of Louisa (Latimer) (1831–1914) of Abingdon, Illinois, and Larkin Crouch Bacon (1818–1877), originally from Tennessee. Her father was a farmer and dealt in stock. Her parents married, each for a second time, in 1864. Clara was the eldest of four children of this marriage; her siblings were a sister, Nannie (1867–1880); a brother, Willie Larkin (ca. 1871–1880); and a sister, Agnes Latimer (1874–1930).

Clara Bacon attended primary school at the Hillsgrove county school and secondary school at the North Abingdon High School. After receiving her PhB in 1886 from Hedding College in Abingdon, Bacon taught for the year 1886–87 at a private school in Dover, Kansas. She enrolled at Wellesley College in 1887 and received her second bachelor's degree in 1890. When she later received her PhD, the Wellesley instructor whom she singled out for thanks was Ellen Hayes, who had gone to Wellesley in 1879 shortly after she received a bachelor's degree from Oberlin College.

After graduating from Wellesley, Bacon taught for seven years (1890–97) at four different schools. The first year she taught in a private school in Litchfield, Kentucky, and the next two years she taught mathematics and German and served as librarian at Hedding College. During 1893–95 she was principal of North Abingdon High School, and finally, during 1895–97 she was preceptress and teacher of mathematics at Grand Prairie Seminary, a secondary school in Onarga in eastern Illinois.

In 1897 Bacon was hired as an instructor at Woman's College of Baltimore (Goucher College after 1910), beginning a career there that was to last until 1934. In 1897 the only other mathematician on the faculty was William H. Maltbie, who in 1891 had used the president of Hedding College as a reference for admission to the Johns Hopkins University and who had earned his doctorate from Johns Hopkins in 1895. At the time that Bacon went to Maryland, her sister Agnes had just earned a bachelor's degree in physics at Wellesley, and they both moved to Baltimore with their mother.

During the summers of 1901 to 1904, Bacon studied at the University of Chicago. She completed her thesis in 1903, received her master's degree in September 1904, and was promoted to associate professor at Woman's College the following year. She also studied at Chicago during the summers of 1907 and 1908.

In 1907 the trustees of Johns Hopkins voted to allow women to be admitted to graduate courses without the special permission that had been needed by Christine Ladd (Ladd-Franklin) in 1878 and Charlotte Barnum in 1890. The resolution adopted did permit individual instructors to object to women in their classes, however. In September 1907, Bacon applied to Johns Hopkins to study mathematics; in October 1910, she applied for candidacy for the PhD degree in mathematics with subordinate subjects education and philosophy. One of the courses she used to fulfill the philosophy requirement was a 1908–09 course in symbolic logic with Christine Ladd-Franklin.

During 1909–11 Bacon was a fellow by courtesy at Johns Hopkins, and during the second of these two years she held a fellowship from the Baltimore Association for the Promotion of the University Education of Women, an organization that Book Web Page BACON - 2

Ladd-Franklin had helped to organize in 1897. During this period Bacon's sister Agnes was a physics student at Johns Hopkins, and in 1914 she was a mathematics student at the University of Chicago. Agnes Bacon worked at the Johns Hopkins School of Hygiene and Public Health and published several articles in the field of biometrics during the early 1920s.

Clara Bacon received her PhD from Johns Hopkins in 1911, the first year Johns Hopkins granted PhD's to women without special approval of the trustees. She was one of four women to receive a PhD from Johns Hopkins that year, the only one of the four in mathematics. She was, however, the second woman to earn a PhD in mathematics from Johns Hopkins; Ladd-Franklin, the first in 1882, was not awarded the degree until 1926.

Bacon was one of the first two women to study mathematics at Johns Hopkins under its new policy. The other was Florence P. Lewis, who was enrolled full time during 1907–08, joined the mathematics faculty at the Woman's College of Baltimore in 1908, completed her work for the PhD at Johns Hopkins in 1913, and also spent the rest of her career at Goucher College.

In 1913 Bacon published her dissertation in the American Journal of Mathematics and the following year was promoted to professor. She remained in that rank until she retired in 1934 as professor emeritus. Her only other teaching position was during the summer of 1922 at Hunter College. During her years at Goucher, students, faculty colleagues, and administrators all valued her teaching, organization, and general humanity. After her death a colleague wrote: "Few people have given a more constant and loyal devotion to Goucher College. To the amazement of her colleagues, Miss Bacon never lost her keen zest in the whole round of college activities, from Matriculation Vespers all the way to Commencement Exercises. The secret of this unflagging delight lay, I believe, in her real interest in every one of her students, and in her warm friendly feelings toward her colleagues" (Lewis 1948, 20).

While Bacon was on the Goucher mathematics faculty, ten women graduated who later received PhD's in mathematics. Of these ten, seven received their doctorates from the Johns Hopkins University. At the time of Bacon's retirement, Marguerite Lehr, who had graduated from Goucher in 1919, wrote that "for those students who majored in mathematics [Bacon's] relation with the Johns Hopkins University was of great importance. Advanced work sometimes took particular form because of a senior's plan to continue her work there" (1934, 3). Bacon not only encouraged women to go to graduate school but assisted many financially so that they could do so. After her death, an administrator wrote that "in committees Dr. Bacon fought for the individual who was not brilliant but who was potentially a good and useful citizen, and her judgment was usually sound. It was understood that a student who was good, but not quite good enough to receive a scholarship, might receive financial help from her. We felt it wise to be on guard against letting her hear of too many such cases" (Lewis 1948, 20). Bacon was also generous to Goucher; two years before her retirement she provided the institution with funds so that the department could purchase a Monroe calculating machine.

Bacon was active in many organizations. She was a charter member of the MAA and stood for election to the board of trustees in 1922 and for vice president in 1924 and 1929. Although she was never elected to a national office in the MAA, she was a member of the executive committee (1919) and then chairman (1931–32) of the

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Maryland-District of Columbia-Virginia Section. She was president of the Baltimore chapter of the AAUP and of the College Club (the Baltimore branch of AAUW), and served for many years on the College Entrance Examination Board. She was also a member of the Equal Suffrage League of Baltimore, the Foreign Policy Association, the League of Women Voters, and the Daughters of the American Revolution. In 1937 she reported that she was a member of the Methodist Episcopal Church and "several associations for peace" (Owens questionnaire). Bacon was an avid traveler, who had traveled with her sister, Agnes, before Agnes's death in 1930. After Bacon's retirement she fulfilled a promise to Agnes to travel again, and she visited England, Italy, Egypt, and Palestine during a fifteen-month trip abroad.

After an illness of a year, Clara Bacon died in the Baltimore home she had shared with her mother and sister until their deaths. She had been an active church member, and her funeral service was held in the First Methodist Church, which was near the house on Calvert Street in which she had lived for fifty years. She is buried in Cherry Grove Cemetery near Abingdon, Illinois. The Clara and Agnes scholarship is an endowed scholarship at Goucher, and one of the residential houses at Goucher is named in honor of Clara Bacon.

Organizational affiliations: AMS, MAA, AAAS, AAUP, AAUW, Phi Beta Kappa.

Thesis and dissertation:

1903 The determination and investigation of the real chords of two conics which intersect in fewer than four real points. MA thesis, University of Chicago. Typescript. MA granted 1904

1911 The Cartesian oval and the elliptic functions ρ and σ . PhD dissertation, Johns Hopkins University, directed by Frank Morley. Printed version, 1913, reprinted from *Amer. J. Math.* 35:261–280.

Publication:

1913 The Cartesian oval and the elliptic functions p and σ . Amer. J. Math. 35:261–280. Published version of PhD dissertation. Reviews: JFM 44.0527.02 (A. Baruch); Rev. semestr. publ. math. 22, pt. 1: 1 (E. B. Cowley).

References to: AmMSc 3-7; BiDWSci; BioWMath; WhAm 2.

Lehr, Marguerite. "Clara Latimer Bacon." Goucher Alumnae Quarterly, July 1934: 3–4. "Dr. C. L. Bacon Dies at Age 81." Baltimore Morning Sun, 15 Apr 1948.

Lewis, Florence P. "Clara Latimer Bacon: Aug. 23, [sic] 1866–April 14, 1948." Goucher Alumnae Quarterly, Spring 1948: 19–22.

Other sources: MA thesis biographical notes 1903; PhD dissertation biographical note 1911; Owens questionnaires 1937, 1940; Johns Hopkins University Archives; University of Chicago, Office of the University Registrar; Cockey, "Mathematics at Goucher"; US Census 1860, 1870, 1880 IL, 1900, 1910, 1920, 1930 MD.

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