METCALF, Ida M. August 26, 1856–October 24, 1952.

BOSTON UNIVERSITY (PhB 1886), CORNELL UNIVERSITY (MS 1889, PhD 1893).

Ida Martha Metcalf was born in Texas, the daughter of Martha C. (Williams) and Charles A. Metcalf. Her mother was born in 1823 in Vermont, and her father was born in the early 1820s in Massachusetts. In 1850 Charles and Martha Metcalf were living in Louisiana, where he was a bookkeeper. Ten years later, they and two girls, Helen E., age nine, and Ida M., age three, were living in New Orleans, where Charles was a clerk. In 1952 Pearson Hunt of the Harvard Business School sent the Cornell University alumni office a short account of Ida Metcalf's life in which he reported that she had come to Boston from Texas on a sailboat with her brother and mother soon after her father died. In 1870 Martha Metcalf and two children, thirteenyear-old Ida and nine-year-old Edward C., were living in Needham, Massachusetts, with Martha's father and sisters. Hunt reported that while she was still in her teens, Metcalf taught in small schools in New Hampshire and worked in the fields after school. According to the 1880 census record, Ida Metcalf was then living in Framingham, Massachusetts, and was a student. It appears she was also a third assistant in the Hillside School in Jamaica Plain, Massachusetts, in the late 1870s and early 1880s while in her early to mid-twenties.

Metcalf entered Boston University as a special student in 1883. After being listed by Boston University as a special student for two years, Metcalf was a regular student and received her PhB with the class of 1886. She wrote a thesis, "The Origin and Development of Styles of Architecture."

During the year 1888–89, Metcalf was a graduate student in mathematics at Cornell University. She received her master's degree with a thesis, "The Theory of Illumination by Reflected and Refracted Light." In February 1891, while teaching at the newly opened Bryn Mawr School in Baltimore, she inquired about returning to Cornell to work on a doctorate in mathematics.

Metcalf spent the year 1892–93 at Cornell taking courses in geometry and analysis. At a meeting of the mathematical club in the spring of that year, Metcalf presented a paper on the work of the algebraic geometer Charlotte Scott of Bryn Mawr College. Serving on her doctoral committee were department head James E. Oliver and Lucien Augustus Wait, the other full professor in the department. Although Oliver was chair of Metcalf's committee, she worked closely with George W. Jones. In the preface to his *Drill-Book in Algebra*, Jones thanked her for spending "half a year in giving form to the text and preparing the questions and exercises" (1892, iv). She also took a course in projective geometry, the area of her dissertation, with him. Her doctorate was awarded magna cum laude in 1893.

In September 1897 a list of appointments to the three public high schools in New York City (then Manhattan and the Bronx) showed Ida M. Metcalf of Boston having been appointed a second assistant for history at the Girls' High School. In the 1900 census report Metcalf was listed with her mother and brother in Wellesley, Massachusetts, and was described as a teacher of mathematics; her brother was a carpenter. In June 1900 the following advertisement appeared in the *Atlantic Monthly Advertiser*: "Newton Lower Falls. Study by the Sea. Tutoring during July and August at a beautiful, restful, and inexpensive place on the coast of Maine. Address Ida M. Metcalf, Ph.D., Newton L. Falls, Mass." (p. 20).

Book Web Page METCALF - 2

In 1902 an article critiquing an aspect of education in the United States appeared with the author identified only as Ida M. Metcalf, Bryn Mawr, Pennsylvania. In the article, "The pampered children of the poor," (*International Journal of Ethics* 13:87–98), the author writes, "The explicit statements in this essay are based on personal experience in high-school teaching in a great city with a very large foreign population, and on the testimony of others engaged in the same work."

Metcalf lived for a time in Newton Lower Falls, Massachusetts. She also worked for a banking house in New York as a securities analyst. In 1909 she had printed a nine-page pamphlet entitled "A demonstration of Fermat's Theorem concerning the equation $x^n + y^n = z^n$." The error in her argument was pointed out in a 1910 review of the pamphlet in Archiv der Mathematik und Physik.

In April 1910 Metcalf was living in Brooklyn and was a teacher according to the census. At about that time she passed a competitive examination for a civil service position with the City of New York and left the teaching profession. Some of her later writing describes her pessimistic attitude toward education. In an article that appeared in February 1911 she quoted actual answers to the New York State Regents' tests, uniform examinations given to high school students, in order to document "the degree of confusion, misconception, and inarticulateness that may, and often does, exist in the minds of some of our young people" (In lighter vein: Humor in the regents' examinations, 640). The following year she wrote a letter to the editor of the New York Times stating that "the real mission of the schools, the development of intellect and character, is not only shirked, but belittled" ("Material aims of schools: Vocational training called a move in the wrong direction," July 17, 1912).

In October 1910 Metcalf was appointed a monitor and in December 1910, at the age of fifty-three, she became a civil service examiner. Pearson Hunt reported that she was the first woman to take such an examination, and was appointed despite her sex because of her performance. In 1912 she became a statistician for the Department of Finance for New York City. She attempted to take the examination for statistician in the Education Department but was not permitted to do so based on her experience "though she had three college degrees, had taught public and private school most of her life and had been statistician in the department of finance over two years" (Report of an Investigation of the Municipal Civil Service Commission, 18). She remained in the Department of Finance until her retirement at the end of 1921. In 1930 she was living in Jamestown, Rhode Island. She worked again as a civil service examiner on a per diem basis until 1939, when she was eighty-one years old.

During the time she was living in New York, Metcalf achieved some notoriety when she placed the following advertisement in the *New York Times* of October 17, 1915:

To teachers and philanthropic workers:

Free home and liberal education will be given little girl 8 or 9 years old with capacity to become a woman of high type if given opportunities for development, but now lacking such opportunities.

The *Times* carried a story the next day concerning the advertisement. Metcalf took a ward, eight-year-old Theresa Kalab, who was born in Austria. Kalab studied at New York University and Columbia University and at the Grand Central School of Art and the Art Students League before becoming a commercial illustrator and

Book Web Page METCALF - 3

author. At the time of Metcalf's death, Theresa Kalab was married to Lawrence Smith and living in Santa Fe, New Mexico.

In his 1952 letter, Pearson Hunt noted that "In view of her own hard struggles to find positions commensurate with her ability, Miss Metcalf throughout her life had a very cynical view of higher education for women. Nevertheless, ... Miss Metcalf made a gift [to Cornell] which was earmarked for the assistance of women students." Metcalf also wrote letters to the editor of the New York Times indicating her feminist beliefs. On January 25, 1914, the headline read "The rule of brute force" and the letter following it critiqued an article by William T. Sedgwick, a professor of biology at MIT:

Prof. Sedgwick told us complacently ... that if women persist in claiming the same rights as other citizens men will exert their superior muscular force and reduce them to literal slavery. ... Are we to understand that all the men unable to hold their own against a prizefighter will be forcibly subdued and held in subjugation if they ask for fair play and venture upon economic competition with their stronger fellow beings? Apparently the dictum of science, as expressed by this prophet, is that we are evolving backward toward the ancestor we share with the gorilla.

On October 11, 1922, Metcalf expressed her views on "discrimination in business circles against women of middle age, a condition the existence of which is readily admitted by employers." She wrote

The thinking women of today of any age are asking for our sex not privilege but "a fair field and no favor," and intelligent employers, if they would bring their business acumen and judgment to bear upon the matter, would ... seek the most competent and conscientious worker quite irrespective of such incidental qualities as age, sex, complexion, political affiliation or religious creed.

By 1931, Metcalf had moved to Jamestown, Rhode Island, where she had spent summers for many years. In 1948 she became ill and moved to a nursing home in Washington, Connecticut, before moving to Fairlawn Nursing Home in Lexington, Massachusetts, where she lived just over a year before her death from arteriosclerosis at age ninety-six. She was buried in the Lincoln Cemetery in Lincoln, Massachusetts.

Thesis and dissertation:

1886 The origin and development of styles of architecture. PhB thesis, Boston University.
1889 The theory of illumination by reflected and refracted light. MS thesis, Cornell University. Handwritten.

1893 Geometric duality in space. PhD dissertation, Cornell University, directed by James Edward Oliver. Printed by E. D. Norton, Ithaca, NY.

Publications:

1909 A Demonstration of Fermat's Theorem Concerning the Equation $x^n + y^n = z^n$. New York: Charles E. Merrill, 1909. Review (listed under Ida M. Metclaff, PhD): Archiv der Math. und Phys. 3rd ser., 16:281 #57 (A. Fleck).

1911 "In lighter vein: Humor in the regents' examinations." Century Illustrated Monthly Magazine 8 (1911): 640–42.

References to: BioWMath.

"Wants to Educate Girl." $New\ York\ Times,\ 18$ Oct 1915.

Obituary. Cornell Alumni News, Feb 1953.

Book Web Page METCALF - 4

Other sources: Division of Rare and Manuscript Collections, Cornell University Library; Williams Papers; communication with City of New York Department of Personnel; Report of an Investigation of the Municipal Civil Service Commission and of the Administration of the Civil Service Law and Rules in the City of New York (Albany, NY: J. B. Lyon Company, 1915); WhoAmW 1 (Smith, Theresa Kalab); US census 1860 LA, 1870, 1880, 1900 MA, 1910 NY, 1930 RI; Massachusetts death certificate.

Last modified: July 20, 2009.