

A portrait of  
Laura A. Linton,  
probably taken in  
the early 1890s



## LAURA A. LINTON and LINTONITE

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FEW MINNESOTANS are aware that there exists within the state a gem stone which received its name from a Minnesota woman who was living at the time of its discovery. It is lintonite, a rare zeolite which has thus far been found only on the shores of Lake Superior and is much sought after by lapidists. Though not a precious stone, it can

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MRS. DAHLBERG is president of the Minnesota Mineral Club. The story of Laura Linton first intrigued her when she found that lintonite is one of the few minerals named for a woman.

be polished highly and makes attractive jewelry. The unusual distinction of bestowing her name upon it was achieved by Laura A. Linton. She earned the honor, for in 1879, as a senior student in chemistry at the University of Minnesota, she conducted the analysis which established lintonite as a mineral closely related to thomsonite but with distinct physical characteristics.

The small, opaque greenish pebbles — none larger than a hickory nut — that Laura Linton analyzed had been found the previous summer by Professors Samuel F. Peck-

ham and Christopher W. Hall of the University of Minnesota. The two men had been engaged in a geological survey on the North Shore of Lake Superior, when, four miles west of Grand Marais, they came upon a bed of dark-colored rock which extended for several miles along the shore of Good Harbor Bay. The bed included a small island off the point that encloses the bay to the south and reached from the water line to hill-tops a mile or two inland. The rock was broken and decomposed at the surface, and its cracks and holes contained numerous zeolite minerals, among which the two geologists immediately recognized thomsonite. In addition to the usual variety, however, they found pale green, translucent pebbles, some of which contained tiny grains of copper. Unfamiliar with the appearance of these specimens, Peckham and Hall collected them for future study.<sup>1</sup>

Analysis revealed that the chemical composition and specific gravity of the strange samples were almost identical to those of thomsonite. But the crystalline structure evident in thomsonite was wholly absent. Instead, a microscope showed the pebbles to be composed of tiny granules, often so small that they were visible only under polarized light. This fact, plus the unusual green color (which in some samples was only a thin shell covering a pink interior) convinced the discoverers that they had found "a distinctive and well marked variety of thomsonite if not a distinct species." They therefore gave it a name, choosing "lintonite" in honor of the girl "to whose patient effort and skill we are indebted for the analysis."<sup>2</sup>

Though Laura Linton's connection with the geology of Minnesota ended there, her career did not. Born in Ohio in 1853, she was the oldest of four children in the Quaker family of Joseph W. and Christina C. Linton.<sup>3</sup> After several moves, the Lintons settled in 1868 on a farm in Wabasha County, and Laura entered the state normal school at Winona. Graduating from that institution in 1872 and from the university in 1879, she did a brief stint of teaching in Lake City. Pro-

fessor Peckham, however, had not forgotten his exceptionally able chemistry student, and he offered her a job as his assistant in compiling a monograph on petroleum for the tenth United States census. The study, published in 1884, consumed two years and owed much to Laura's mechanical and free-hand drawings, as well as to her research and translations.<sup>4</sup>

With horizons thus broadened, she entered the Massachusetts Institute of Technology for further study in physics and chemistry, but left before graduation to accept a science professorship in Lombard University at Galesburg, Illinois. After a year there she returned to Minnesota as head of the science department in Minneapolis' Central High School.<sup>5</sup>

Perhaps family ties helped to draw her back, for the Lintons were a close-knit clan. Laura's younger brother William had become a doctor and lived in Minneapolis, while her sister Sarah, who had also studied medicine, was serving her residency at Northwestern Hospital there. In 1889 Sarah was appointed physician in charge of the female section of the Rochester State Hospital, and three years later she married the

<sup>1</sup> S. F. Peckham and C. W. Hall, "On Lintonite and other forms of Thomsonite: A preliminary notice of the Zeolites of the vicinity of Grand Marais, Cook County, Minnesota," in *American Journal of Science*, 19:122-130 (February, 1880); Geological and Natural History Survey of Minnesota, *Final Report*, 5:250 (St. Paul, 1900); Newton H. Winchell, "Thomsonite and Lintonite from the North Shore of Lake Superior," in *American Geologist*, 22:347-349 (December, 1898).

<sup>2</sup> Peckham and Hall in *American Journal of Science*, 130.

<sup>3</sup> Though in later years Laura Linton attended the Episcopal church, several sources indicate that she was raised a Quaker. See Frances E. Willard and Mary A. Livermore, eds., *A Woman of the Century: Biographical Sketches . . . of Leading American Women*, 463 (Buffalo, Chicago, New York, 1893); Mrs. Grace N. Willson, Superintendent, Olmsted County Historical Society, to the author, July 25, 1955.

<sup>4</sup> Willard and Livermore, eds., *A Woman of the Century*, 463; *Minneapolis Journal*, April 2, 1915; *United States Census, 1880, Production, Technology, and Uses of Petroleum and its Products*, viii.

<sup>5</sup> Willard and Livermore, eds., *A Woman of the Century*, 463.

institution's assistant superintendent, Dr. Robert M. Phelps.<sup>6</sup>

Laura continued to teach in Minneapolis for ten years, then, leaving her job, she re-entered school and spent two years in chemical research at the University of Michigan. At the end of that time she returned to Minneapolis, and though already in her early forties, enrolled in the university medical school. There is no way of knowing what induced her thus to abandon a successful career in science and take up medicine. Her sister's health was failing, and perhaps it was

<sup>6</sup> Mrs. Willson to the author, April 6, 1955; Joseph A. Leonard, *History of Olmsted County*, 122 (Chicago, 1910).

<sup>7</sup> *Minneapolis Journal*, June 2, 1900; April 2, 1915; Mrs. Willson to the author, April 6, 1955. In 1912 Laura's brother, Dr. William B. Linton, also joined the staff of Rochester State Hospital.

<sup>8</sup> Mrs. Willson to the author, July 25, 1955; Mrs. Laura Phelps Cross to the author, n.d. [1956?]; State Board of Control, *Second Biennial Report*, 1904, p. 208; *Daily Post and Record* (Rochester), April 2, 1915.

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a sense of mission that prompted the decision. Whatever the reason, she graduated in 1900, and not waiting to receive her diploma, stepped immediately into Sarah's vacant position at Rochester State Hospital. Three years later Sarah died of tuberculosis contracted in the course of her work.<sup>7</sup>

The final fifteen years of Laura Linton's life were devoted to the care of the mentally ill. While at the state hospital she helped to introduce among the women patients a supervised program of needlework and handicrafts which was one of the institution's earliest attempts at occupational therapy. Her death in 1915 was mourned by many friends in Rochester and on the hospital staff, and especially by her two motherless nieces — Sarah's children — for whom she had been a sort of "fairy godmother." To each of them she had given a necklace made of lintonite.<sup>8</sup>

Though the perpetuation of her memory in the name of the green gem stone occurred purely by chance, it seems, nevertheless, a fitting commemoration for one of Minnesota's earliest woman scientists.

#### ROCHESTER *State Hospital in the early 1900s*





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