The Most Famous New Hampshire Beryl Specimen You've Never Seen

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A fairly large beryl crystal from New Hampshire, highly regarded for almost 200 years, has a remarkable history. But it is quite likely that few in New Hampshire have ever seen it. Today, it is located in the Natural History Museum of Vienna, Austria (in German, Naturhistorisches Museum Wien; abbreviated NHM-W). This article will explore the history of this specimen, where it came from, how it got to Vienna, who was involved, where it is today and what it looks like.

The first published description of this specimen (at least in North America) was written by Charles T. Jackson, a Harvard-graduate medical doctor and student of geology and mineralogy. He became the first state geologist of Maine, Rhode Island and New Hampshire, and wrote a report on the geology and mineralogy of New Hampshire; the first draft was released in 1841 and the final report published in 1844 (Jackson 1841, 1844; Woodworth 1897). In his geological survey, Jackson (1844:59-60) mentions the town of Acworth, saying:

> "This locality has enjoyed great celebrity on account of the immense crystals of beryl which have been obtained from it, and have been sold for cabinet specimens in various parts of the world. Some of the crystals are more than a foot in diameter and eighteen inches in length, but they are, like all gigantic crystals, defaced by striae and cracks which injure their beauty. Notwithstanding these imperfections, the huge dimensions of the crystals has produced great surprise among mineralogists and geologists of Europe. One of these beryls, eight inches in diameter, was shown me in the Imperial Cabinet of Vienna, as a remarkable specimen, and was a very highly valued present to that superb collection."

Concerning the appearance of the large beryl crystal, Holden (1918:199) agrees with Jackson, stating, "... while these beryls possess magnitude, they are lacking in beauty" In this regard, micromount specimens do have an edge.

After graduating from Harvard, Jackson traveled to Europe in 1829 to continue his studies of medicine and mineralogy in France. In 1831, he began touring southern Europe, including Austria (Woodworth 1897). It was during these travels that he encountered this particular beryl specimen. According to the original specimen label, it had been recently acquired when Jackson viewed it. The label states that the beryl crystal was acquired from Baron Alois J. X. von Lederer in 1831, and describes it (in German) as "Beryl - a 20 cm [7.9 inch] long specimen in a 21 cm [8.3 inch] thick blue-green prism" (Smith 1993:8; Kolitsch 2018).

Baron von Lederer served as the Austrian Consul-General to the United States in New York City from 1820 to 1842, but he was also a mineral collector. He extensively collected European specimens before coming to New York, and continued to expand his collection by adding North American specimens. His European collection of about 6,000 specimens was purchased by the University of Michigan in 1836. After Lederer's death in 1842, his North American collection of about 2,600 specimens was purchased by Yale College (now University) in 1843. These specimens are still in the mineral collection of Yale Peabody Museum of Natural History. (Narendra 1979; King 2012)

Thus far, we know that the specimen comes from Acworth, New Hampshire, and was acquired by Baron von Lederer who provided the specimen to NHM-W, Austria, where it's still on display today

(Hammer 2012). New Hampshire has long been recognized as being a source of very large beryl crystals; for examples, see Phillips and Allen (1837), Feuchtwanger (1838), Tenney (1860), and Flint (1919). So where, specifically, in Acworth was this beryl crystal found, who quarried it, and how did it get to Baron von Lederer?

Just south of the town of Acworth is the village of South Acworth along Cold River. About 0.8 mile south of S. Acworth sits a rocky hill protruding from the surrounding fields. In the early 1800s, it was known as Williams' Ledge or Williams' Hill, named for the farmer, John Williams, who owned the land (Shepard 1830; Jackson 1841, 1844; Merrill 1869; Allen 1899; Levin 1948; Davis 2013). The rocky outcrop attracted the attention of geologists and mineral collectors who sampled its muscovite, rose quartz, beryl and other minerals. Charles Upham Shepard of Yale College described his visit to the area around 1829 in *The American Journal of Science*, a scholarly journal begun in 1818 by Benjamin Silliman Sr. (Shepard 1830).

Not long after Shepard's visit to Beryl Mountain, James Bowers, a local farmer, mineral collector and dealer who lived just north of Cold River in South Acworth, took an interest in this curious ledge not far from his home. James Bowers was the first to quarry the ledge for mineral specimens, including beryl and mica (e.g., Frink 1989). Much more detailed information about James Bowers, his family history and mining activities can be found in Davis (2013). A rare interview with James Bowers took place in his home in South Acworth and was written 6 August 1838 by Professor Frederick Hall (over time, from Middlebury College, VT; Trinity College, CT; Columbia College, DC). He described Bowers' home, family, and a trip to Williams' Ledge (Hall 1839). It wasn't until 1867 that the name Williams' Ledge was changed to Beryl Mountain. C. A. Allen (1899:90) writes:

> "Quite early in the history of beryl being found in this locality, James Bowers obtained a fine specimen which he sold for about \$50, which he considered a very good price. It was resold from time to time at a great increase in price until it finally reached the Imperial Cabinet in Vienna, where it remains and is valued at fifty thousand dollars."

Thus, the beryl specimen in Vienna was quarried by James Bowers from Beryl Mountain in South Acworth, New Hampshire, and sold for about \$50. In 1830, \$50 was equivalent to about \$1150 today, which would be an excellent figure for a self-sufficient farmer. But the stated \$50,000 value in 1899 (an estimated \$1.5-million today) is unsubstantiated and mentioned nowhere else; additional investigation is required. For example, Fogg (1874:47) states that, "One of the [Acworth] Beryls was 8 inches in diameter and was sold in the city of New York for \$15,000. It was placed in the Imperial Cabinet at Vienna." Smith (1993:6) suggests that the 8-inch beryl in question was part of a larger consignment of mineral specimens acquired by NHM-W, and states that there were ten Acworth beryl specimens among forty North American pieces. Smith is dubious of the \$15,000 figure which, even for forty specimens, is rather high (equivalent to about \$340,000 today).

The person who purchased the beryl in New York and took it to Vienna is documented: Baron von Lederer. But was there a middle man between Bowers and von Lederer? Smith (1993:6) writes about "Professor Hermann" of New York City, also mentioned by Allen (1899:99), who purchased large quantities of specimens from James Bowers to supply institutions and private collectors. Smith (1993) speculates that Professor Hermann might be "Dr. Heermann" mentioned by C. U. Shepard (1830) as one who accompanied Shepard on his 1829 journey to Beryl Mountain. No further evidence concerning this has been found.

NHM-W, Vienna Natural History Museum, (Figure 1) resembles a grand palace more than a museum, but it was built 1872-1891 for Franz Joseph I specifically as a natural history museum as the

interior decorations attest. For example, under the rotunda is a large, octagonal room; each of the eight walls identifies a branch of science celebrated in the museum. Figure 2 shows a portion of two walls highlighting mineralogy and geology. NHM-W faces the matching Art History Museum (Kunsthistorisches Museum) across Maria-Theresien Platz along Burgring in the southwest corner of the inner city of Vienna. Both museums are very worthwhile places to visit. After entering NHM-W in the center below the rotunda, go up the stairs on the right to the mezzanine level to enter the rock and mineral exhibits that fill the first four large rooms; the fifth room houses meteorites. There is a systematic display of minerals in many long, rectangular, glass-topped cabinets in each of all four rooms. The walls are lined with more cabinets with displays of larger specimens, rock types, etc. The Acworth beryl is in Room 4, cabinet 30, at the end of the cabinet with a triangular glass window. It dominates this space with three smaller specimens. This is shown in Figure 3 where some of the systematic cabinets and wall displays can also be seen in the background. Figure 4 is a closer look at the beryl. Lighting in the display was supplied by one fluorescent tube at the bottom front of the cabinet, with virtually no light from above providing a photographic nightmare of over- and under-exposure. Like many museums, NHM-W allows photography, but no flash.

Vienna is a lovely city filled with art, music, science, history and great food. Plan your visit in advance to determine the days and holidays the museums and attractions you wish to visit are closed to avoid surprises. You can also find specimens from Beryl Mountain in museums closer to home (even though Charles T. Jackson didn't describe those specimens 177 years ago). For example, the Yale Peabody Museum of Natural History in New Haven, Connecticut, has thirteen Acworth beryl specimens (six specimens are from the Baron von Lederer collection, so they were collected in the early 1800s). One is 39 cm [15.4 inches] tall by 35 cm [13.8 inches] diameter. They aren't on public display, but can be viewed by making an appointment with Collections Manager Stefan Nicolescu. The Harvard Museum of Natural History, Earth and Planetary Sciences Gallery, in Cambridge, Massachusetts, also has similar specimens.

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Figures:



Figure 1. A partial view of the exterior of the Natural History Museum. The entrance is below the center rotunda. Photographed May 2018 by the author.



Figure 2. Under the rotunda is an octagonal room. Each wall identifies a branch of science celebrated in the museum. These two walls identify mineralogy and geology, part of the extraordinary view looking up while enjoying Sachertorte and coffee in the Dome Hall lunchroom. Photographed May 2018 by the author.

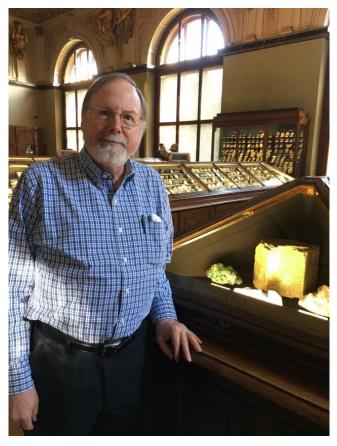


Figure 3. View of the interior of Room 4 near the end of cabinet 30 with the Acworth beryl (and the author as a size reference). Other systematic cabinets and wall displays can be seen in the background. Photographed May 2018 by the author's wife.



Figure 4. This is the specimen that Charles T. Jackson viewed in 1831 in Vienna and described a decade later. Photographed May 2018 by the author.