

## COLLECTION OF JOHANN CARL FREIESLEBEN IN VERNADSKY STATE GEOLOGICAL MUSEUM

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1. Johann Carl Freiesleben (1774-1846)  
[https://de.wikipedia.org/wiki/Johann\\_Carl\\_Freiesleben](https://de.wikipedia.org/wiki/Johann_Carl_Freiesleben)

2. Johann Gotthelf Fischer (1771-1853). From the Library of Moscow Society of Naturalists.



The Freiesleben collection has been kept in Moscow for about two centuries. The Vernadsky State Geological Museum of the Russian Academy of Science has been the successor of the Moscow University Natural History Museum, in which the collection was first received (Bessudnova, 2006). A small part of the Freiesleben collection is exposed in the permanent exhibition in the “Historical Collections” hall. We have been working on the attribution of specimens of this collection for more than ten years..

### Life and work of Johann Carl Freiesleben

Johann Carl Freiesleben was born on June 14, 1774 in Freiberg (Saxony) in the family of a miner. He already gained experience in the mine while studying at the gymnasium. In 1790-1792, he studied in the Freiberg Mining Academy, where Abraham Gottlob Werner (1749–1817) taught mineralogy.

At that time, Alexander von Humboldt (1769–1859), Johann Gotthelf Fischer (1771–1853), Ernst Friedrich von Schlotheim (1764–1832), and Leopold von Buch (1774–1853) were listeners of the Academy too. Together, they made many excursions to open pits and mines, during which Freiesleben started his collection (Gümbel, 1877).

Grigory Ivanovich Fischer von Waldheim<sup>1</sup> (Buttner, 1956), a professor of the Moscow University wrote, remembering years of study in the Freiberg Mining Academy: “*The family of Freiesleben accepted me as a member*” (Fischer von Waldheim, 1850).

In 1792–1795, Freiesleben studied jurisprudence and Fischer studied medicine at the University of Leipzig. The friends rented living quarters in Leipzig together. In 1850, Fischer von Waldheim recalled his friend: “*Johann Carl Freiesleben was a sincere and loyal friend*” (Fischer von Waldheim, 1850).

Freiesleben studied the geology and mineralogy of Saxony and Thuringia in his first big trip with Leopold von Buch. He explored the Thuringian forest with Ernst Schlotheim, and with Alexander Humboldt the Middle Mountains of Bohemia.

In the summer, Freiesleben explored the Harz. The result was the publication of his first major work “*Bergmännisch mineralische Beschreibung des Harzes*” (1795, in two volumes), which included a description of the mines and minerals of the Harz.

In 1795, after graduating from the University of Leipzig Freiesleben traveled with Alexander Humboldt across the Alps, visiting Switzerland and Savoy, which at that time

<sup>1</sup> In 1833, Fischer has been elevated in nobility in recognition of numerous merits. Then he was allowed to be called ‘Fischer von Waldheim’ that showed his relation with his native city (Buttner, 1956).

3. Lazulite, quartz, muscovite. 8 x 5.5 cm.  
Silesia, Poland. VSGM #MN-38768.



All specimens are from Johann Carl Freiesleben collections, Vernadsky State Geological Museum, RAS (VSGM), Moscow, Russia.

Photo: Michael B. Leybov

was part of the Sardinian kingdom. These young researchers conducted a comparative study of the Jurassic deposits of Switzerland and Thuringia. Subsequently Freiesleben used his observations from the time to write his “*Neuen Classification der Gebirge*” (New Classification of the Mountains), published in 1801.

In this study were included the first mentions of mining activities in Saxony near Freiberg date back to 1168, ore mining in Annaberg in 1470 is cited and polymetallic vein formations concentrated mainly in the Ore Mountains and the Harz are described. In all the mines of Saxony, the main objective was silver, the extraction of which continued until the end of the 19<sup>th</sup> century. Then the role of lead, zinc, cobalt and other met-



4. Pyromorphite. 9 x 5 cm.  
Freiberg, Saxony, Germany.  
VSGM #MN-38407.