## THE "STHUFNOI KABINET": A MINERALOGICAL MUSEUM IN SEVEROURALSK

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For future education and for curiosity, moreover for students and mine finders, each laboratory must have a special cabinet for all types and qualities of ores of each metal specially labelled and described, when found and what comprised from.

Vasiliy N. Tatishchev, Mining Charter, 1735

Specimens: Museum "Shtufnoi Kabinet", Severouralsk.

Photo: Mikhail V. Tsyganko unless otherwise specified

1. Young mineral amateurs, "Shtufnoi Kabinet" frequent visitors.



he "Shtufnoi Kabinet" Mineralogical Museum in Severouralsk city (North Ural, Russia) opened its doors on the 3<sup>nd</sup> of April 2014. Museum was founded around my private mineral collection, transferred for timeless usage to the Severouralsk Regional Museum, with "Shtufnoi Kabinet" becoming its part. The efficient private-municipal partnership allowed to create a representative and scientifically significant exposition. The total area of the museum is 110 square metres, hosting about 1500 specimens as of today. Collection started from a small specimen of agate, which I found when I was 12-year-old at the dumps of the nearest bauxite Shaft 13-13bis (currently Kaliinskaya Shaft), part of the Severouralsk bauxite Mine. Mollusc fossils were also found at the same time. They were Devonian gastropods as became evident later. These finds sparked my spirit, which turned into a true passion for stone in 15 years.

First two years of museum existence were spent not only for the hunt for specimens, but rather for a concept to make the museum noticeable and interesting. This task was resolved. Today, the "Shtufnoi Kabinet" is first of all a museum, where has represented minerals of the North Urals. Our museum has one of the most representative collections of mineralogical specimens from quite a large region. It is the best from the point of view of characterization of its today's mineralogy. Those who are familiar with our region can find many familiar names on the labels: Severouralsk bauxite deposits, Vorontsovskoe gold deposit, Severopeschanskoe and Turia copper-skarn deposits, and many others.

Only 10—15 years ago, most collectors did not know about good-quality mineralogical specimens from the North Urals, except perhaps large calcite crystals from the shafts of the Severouralsk bauxite mines, which were also rare. The beginning of the serious work on systematic studies of mineralogical objects of the region and gathering of the stone material started in 2006, when I, as a young specialist, returned to my hometown after receiving a degree of mining geologist.

The old mines with some green mineral in white quartz from the Kumba-Zolotoi Kamen Ridge were quite intriguing. They were mentioned to me by some lovers of stone from Yekaterinburg. The search for these mines took much time and work. It became obvious that the origin and location of such stones should be investigated not as a smash-and-grab job. Rather a careful study of ancient sources, previous geological reports, memoirs of geologists and old men was to be undertaken. It became apparent that the mines at Zolotoi Kamen (Golden Stone) are known for long time, with reports written by several Academicians. Peter Simon Pallas was the first Academician who visited the site in 1770. He described 'green schorl' which turned to be epidote, whereas his 'water-transparent topaz'





- 2. **Calcite** crystal. 12 x 9 cm. Shaft 14-14 bis (now "Red Cup"), Severouralsk Bauxite Mine (SUBR), Sverdlovskaya Oblast, North Urals, Russia. Tkachenko family donation.
- 3. **Cuprite** crystals with **malachite**. 6 x 6 cm. Turyinsky Mines, Krasnoturyinsk, Sverdlovskaya Oblast, North Urals, Russia. Mikhail Yu. Anosov donation. Photo: B.Z. Kantor.

4. Hall #2 of Museum "Shtufnoi Kabinet".



was a rock crystal. Then, Evgraf S. Fedorov visited this area. The ridge was also visited by Alexander E. Fersman. In 2017, Artem Anisimov, young geologist and pupil of the "Shtufnoi Kabinet", found at this mine a large rock crystal with epidote inclusions, which became the best in the museum collection for this area. Perhaps, it is the best ever found specimen here.

Let us return to the above-mentioned calcite crystals. The Severouralsk bauxite shafts intercepted karst cavities at the upper levels. Their volumes reached hundreds of thousands of cubic metres. One can imagine the beauty of the walls and ceilings, decorated with large calcite crystals. The arrow of the miner's torch looked around the magic of the underground palace, impressing with the perfection of the natural forms. Unfortunately, such cavities were not found any more when underground workings went below a 1 km depth. This is why the Museum collection is valuable, with its druses of calcite of various forms and tint, originating from different Severouralsk mines.

Then, there were several discoveries made one after another. In 2006, the revision of the Serov nickel Pit (Elovskoe nickel-cobalt deposit) revealed an amazingly beautiful intergrowth of large crystals of white aragonite. Unfortunately, this area was quickly mined out, with rare finds of similar specimens afterwards.

Mineral specimens from the Vorontsovskoe gold deposit are a special glory of the museum. This deposit yielded first Russian finding of getchellite. The effective specimens are bright orange-right, with very lustrous tabular segregations of up to 2 cm getchellite, occurring in white dolomitic marble, beautifully contrasting with the rock. These rocks also host quite large (up to several centimetres) rare arsenic and antimony sulphide, a bright yellow wakabayashilite.

In the mining town, beautiful samples can be found at very unexpected locations: in the flats, garages, country houses and even in the streets. However, the most amazing find of collection-quality specimens in situ took place in the Petropavlovsk limestone pit, within the limits of the city of Severouralsk. Several years ago, the mining works in the Devonian limestone discovered a vertical column-like clay body, literally saturated with bizarre skeletal crystals of pyrite, their intergrowths and dendritic segregations. Sometimes, there are small marcasite

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