

## FERSMAN MINERALOGICAL MUSEUM RAS: THE RECENT NEWS

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1. Fersman Mineralogical Museum, Russian Academy of Sciences staff:  
*from left to right sitting:* K.A. Konovalova, V.E. Merkushev, D.I. Belakovskiy, V.Y. Gerasimov, A.O. Karpov, M.S. Alferova;  
*from left to right standing:* E.V. Kozlovskaya, B.E. Borutskiy, N.A. Pekova, T.M. Pavlova, M.E. Generalov, T.I. Buslaeva, P.Yu. Plechov, Yu.D. Gritsenko, E.N. Matvienko, V.K. Garanin, S.N. Nenasheva, T.M. Mashkina, E.L. Sokolova, M.D. Shchekeina, E.I. Savina, A.A. Agakhanov, E.V. Bobkova, M.A. Komagorova, E.A. Borisova, I.V. Pekov, V.M. Gekimyants, A.A. Evseev, E.M. Spiridonov. May 7, 2021.

**T**he Fersman Mineralogical Museum of the Russian Academy of Sciences is the main Russian mineralogical museum and one of the largest in the world. Its huge collection includes 156,000 exhibits that reflect the experience and achievements of Russian and world mineralogy for more than three centuries.

Despite its respectable age, the museum is very active these days. The interest in its collections is evident from the endless stream of people filling the huge hall of the Museum on visiting days - from Wednesday to Sunday. It would be not an exaggeration to say that mineralogy is for all ages. Here one can meet experienced and knowledgeable professional geologists and mineralogists, as well as children of different



2. "Minerals of volcanic exhalations" exposition.

3. "Meteorites. New acquisitions" exposition.

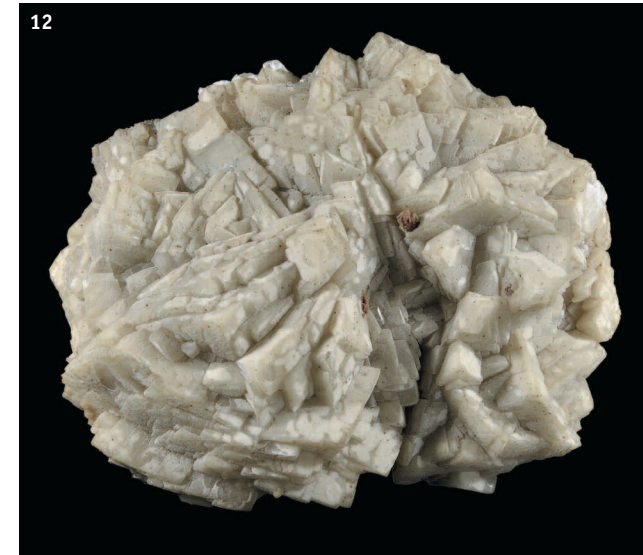
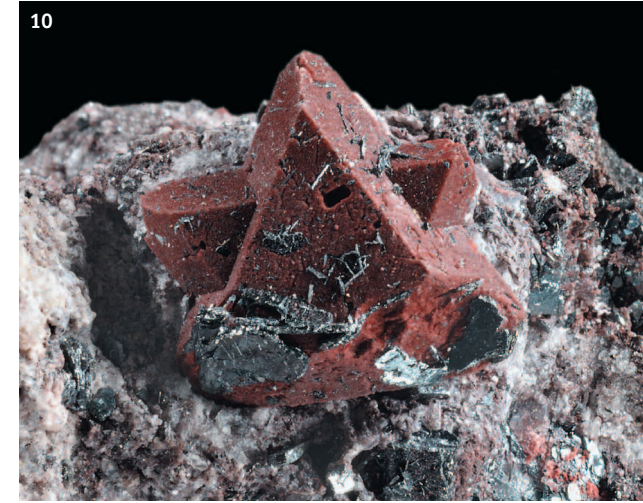
4. "New acquisitions" exposition.

**All specimens are from the Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (FMM). Photo: Michael B. Leybov.**

5. Showcase with large malachite and azurite specimens from the Kamenushinskoye deposit (Kemerovo Oblast, Western Siberia, Russia). O.S. Bartenev donation.







6. Black **perovskite** crystal (1.4 cm across the octahedron edge) in **calcite** with **magnetite**. 6 x 4 cm. Slyuda Mine, Kovdor, Kola Peninsula, Russia. FMM #96369, O.S. Bartenev donation, 2018.

7. **Leucosphenite** crystal (3 x 2.5 cm) in quartz. Dara-i-Pioz, Tajikistan. FMM #96406, collected by the Museum scientists L.A. Pautov, A.A. Agakhanov, V.Yu. Karpenko, 2018.

8. White radial-fibrous **xonotlite** aggregates on brushy **prehnite**. 7 x 5 cm. Bazhenovskoe deposit, Middle Urals, Russia. FMM #95804, A.E. Zadov donation.

9. **Stillwellite-(Ce)** crystal (3 x 2.5 cm) in aegirine-feldspar-quartz rock. 6 x 4 cm. Dara-i-Pioz, Tajikistan. FMM #96405, collected by the Museum scientists L.A. Pautov, A.A. Agakhanov, and V.Yu. Karpenko, 2018.

age. Frequent visitors of the Museum are pupils and students. Teachers of Moscow higher educational institutions regularly hold mineralogy, geochemistry and petrography classes here. The Museum collection is an inexhaustible source of information for historians of science, because here are stored specimens and ancient collections from locations that do not exist at present, are completely mined out, or lost. The Museum also preserves collections of famous people of Russia. Such, for example, is the outstanding collection of Prince Petr Arkadievich Kochubey, assembled by him in the second half of the 19<sup>th</sup> century. Fersman called it "*the best that Russia's nature has given in the last century*".

A truly revolutionary transformation in the design of the Museum's exposition was the creation of a new light system in the showcases in the exhibition hall. Meticulous work was carried out for several years, and as a result, the illumination of showcases and individual samples in them radically changed for the better. Many exhibits finally appeared before the visitors in all their glory, playing with colours and bright lustre. Of

10. **Zuniite** twin (1.3 cm) in gypsum with hematite. Qalat-e Bala salt dome, Bandar Abbas, Hormozgan, Iran. FMM #96828, O.S. Bartenev donation, 2019.

11. Parallel intergrowth of two **stillwellite-(Ce)** crystals (up to 2 cm) in quartz. Dara-i-Pioz, Tajikistan. FMM #96403, collected by the Museum staff L.A. Pautov, A.A. Agakhanov, and V.Yu. Karpenko, 2018.

12. White blocky crystals of **dolomite** (up to 5 cm) covered with a thin crust of **collinsite**. 13 x 11 cm. Zheleznyi Mine, Kovdor, Kola Peninsula, Russia. FMM #96809, collected by M.M. Moiseev and O.E. Kudryavtseva, 2019.

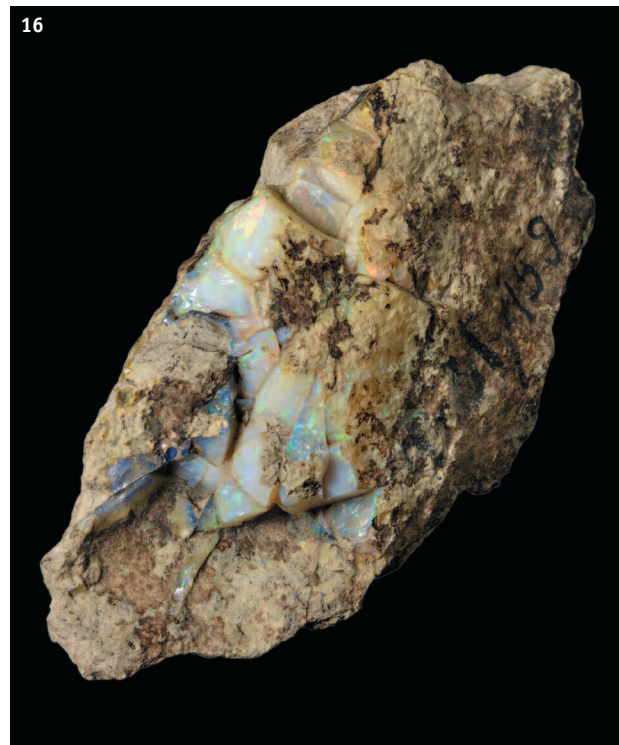
13. Large-leafed aggregates of **bafertisite** in aegirine-quartz-feldspar rock. 18 x 12 cm. Dara-i-Pioz, Tajikistan. FMM #96397, collected by the Museum scientists L.A. Pautov, A.A. Agakhanov, and V.Yu. Karpenko, 2018.

course, such a great work could not be implemented without additional financial support. Sponsors of this wonderful project are Oleg S. Bartenev, Dmitriy I. Belakovskiy, PJSC *ALROSA* and *Freestyle Technology* company, to whom we are very grateful.

As before, the Museum is engaged in intensive scientific activity. Now it is an important scientific centre of the Russian Academy of Sciences. It includes a research laboratory with modern equipment. Distinguished scientists, postgraduate and graduate students work here. Scientific activity in the Museum is extremely high. Every year, more than ten new minerals are discovered here. Few research groups in the world can boast such outstanding results. The Museum publishes a scientific journal *New Data on Minerals*.

The Museum does a lot to popularize mineralogical knowledge, and not only in traditional ways, such as through displaying its collections at exhibitions, guided tours, traveling exhibitions, but also in new ways. Many interesting things have recently appeared on the Museum's website (<https://www.fmm.ru>). Since the beginning of 2022,





14. **Goethite** pseudomorph on a mining cable. 25 x 2.5 cm. Hilarion Mine, Kamariza, Lavrion, Attica, Greece. FMM #OP2962, I.S. Lykova donation, 2016.

15. Aggregate of radial aggregates of fine-needle crystals of **astrophyllite** with **microcline**. Marchenko Peak, Khibiny Massif, Kola Peninsula, Russia. 15 x 11 cm. FMM #97698, D.I. Belakovskiy donation, 2021.

16. Noble **opal** (6 cm) in argillized volcanic rock. 12 x 6 cm. Raduzhnoe Deposit, Primorsky Krai, Russian Far East. FMM #96463, A.A. Frolov donation, 2019.

there is a monthly mineralogical seminar in the Museum, where world-class scientists from different organizations present their research results and latest scientific achievements on different aspects of mineralogy and related disciplines.

The main substantive part of the exposition is in constant improvement. Recently, not only new exhibits have appeared here, such as a giant charoite vase (a donation from S.A. Izmet's'ev), but also a several of new expositions, permanent and temporary. An important event in the life of the Museum was the opening of such exhibitions as “*Remarkable Minerals of the Khibiny and Lovozero Alkaline Massifs (Kola Peninsula)*”<sup>1</sup> and “*Meteorites. New acquisitions.*” It is difficult pass another new showcase in the centre of the Museum hall. It presents large magnificent specimens of malachite and azurite from the Kamenushinskoye deposit (Kemerovo Region,



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17. Pillar crystals of **phlogopite** (the largest 5.5 x 3.5 cm) with **calcite**. 8 x 4 cm. Slyuda Mine, Kovdor, Kola Peninsula, Russia. FMM #96375, O.S. Bartenev donation, 2018.

18. Colourless split crystal of **kovdorskite** with a blue nucleus. 4.5 x 3.5 cm. Zhelezhyi Mine, Kovdor, Kola Peninsula, Russia. FMM #96545, O.S. Bartenev donation, 2019.

19. Octahedral **magnetite** crystal of outstanding size (14 x 14 x 12.5 cm), to which a smaller octahedron (5 cm along the edge) is attached. 16 x 14 cm. Tatarskoe niobium deposit, Yenisei Ridge, Krasnoyarsk Krai, Russia. FMM #96844, V.V. Levitskiy donation, 2019.

<sup>1</sup> Notes about this exhibition was recently published: *Pekov I.V., Belakovskiy D.I. (2021) New Exhibition at the Fersman Mineralogical Museum: “Remarkable Minerals of the Khibiny and Lovozero Alkaline Massifs (Kola Peninsula)” // Mineralogical Almanac, vol. 26, issue 1, 4–9.*





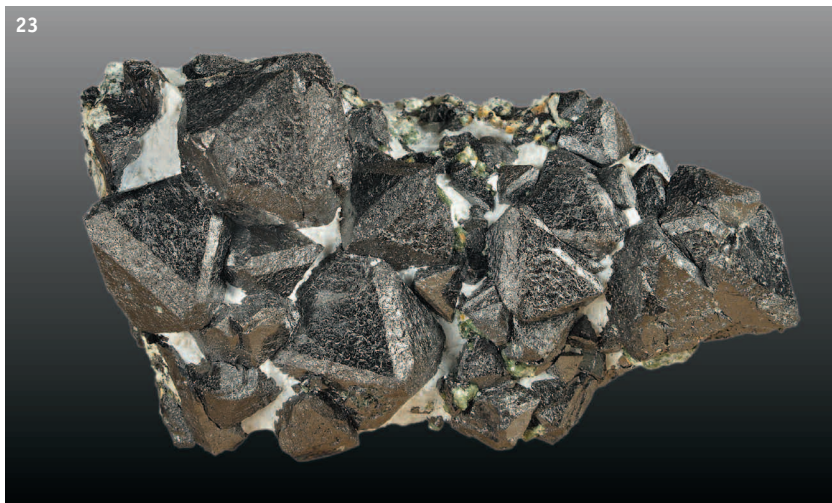
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20. **Corundum** crystal (15 x 1.5 x 1.2 cm) on a base of two-mica schists. San Jacinto Mountains, Riverside County, California, USA. FMM #97059, V.V. Levitskiy donation, 2020.

21. Spherulite (5 cm in diameter), formed by **celestine** crystals, partially embedded in marl. 13 x 9 cm. Aurtash occurrence, Mangyshlak Peninsula, Kazakhstan. FMM #97739, collected by the Museum scientists D.V. Abramov and A.B. Nikiforov, 2021.

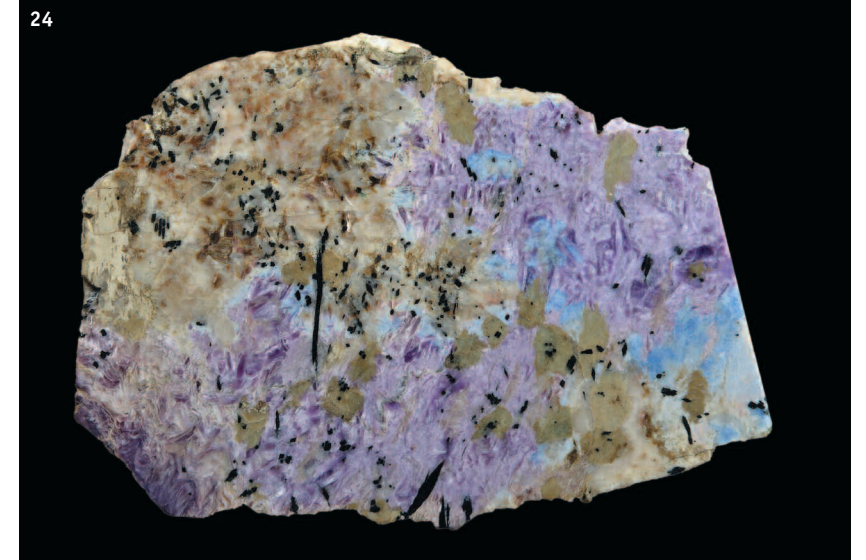
22. Intergrowth of **hematite** crystals with epitaxially grown **rutile** crystals (up to 1.5 cm in size). 6 x 4.5 cm. Mwinilunga, Northwestern Province, Zambia. FMM #OP2953, D.I. Belakovskiy donation, 2016.

23. Druse of **magnetite** with **calcite** and **forsterite**. 16 x 9 cm. Zheleznyi Mine, Kovdor, Kola Peninsula, Russia. FMM #96372, O.S. Bartenev donation, 2018.

24. Aggregates (up to 3 x 1.5 cm) of blue **fluorocarbonite** in a rock composed of charoite, pectolite, aegirine, quartz, and fluorapophyllite-(K). 14 x 10 cm. Murun Massif, Irkutsk region, Russia. FMM #97751, M.A. Mitichkin donation, 2021.

25. A **celestine** crystal intergrowth (the largest crystal 18 x 8 cm). Korsunskoe deposit, Karachaevo-Cherkessia, Russia. FMM #97431, V.V. Levitskiy donation, 2021.

26. Intergrowth of block tetrahedral crystals of **genthelvite** on black split crystal of **ilvaite**. 10 x 9 cm. Huanggangliang mine, Inner Mongolia, China. FMM #95130, D.I. Belakovskiy donation, 2015.



24



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26

Western Siberia, Russia). All of them are donations to the Museum from Oleg S. Bartenev. New spectacular specimens from Kamchatka collections of the last decade were added to the exhibition devoted to minerals formed on volcanoes.

The Museum collection is constantly expanding, and new interesting exhibits are coming in. Every year, between 500 and 700 new specimens from locations in Russia and all over the world come into collection. The bulk part of new acquisitions is donations of collectors and scientists. There are also collections of employees of the museum brought by them from expeditions. Traditionally, on the "New Acquisitions" showcase represents specimens of excellent quality. On these pages, we publish some photos of specimens, which recently enlarged museum collections.

The authors would like to thank Dmitriy I. Belakovskiy for his valuable comments and assistance in photographing for this article.