

Inna S. Lykova,
Fersman Mineralogical Museum, RAS,
innalykova@mail.ru

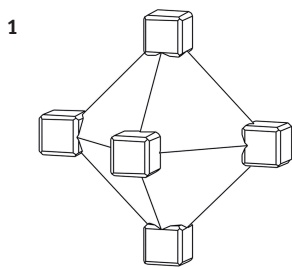
Photo: Michael B. Leybov

The 2016 spring mineral Show "Gem Fair" was organized by The "Gemma" Gallery and held on April 2 and 3 in the Sokolniki Congress Exhibition Hall; this Show boasted of both newly found minerals and exciting specimens from old collections.

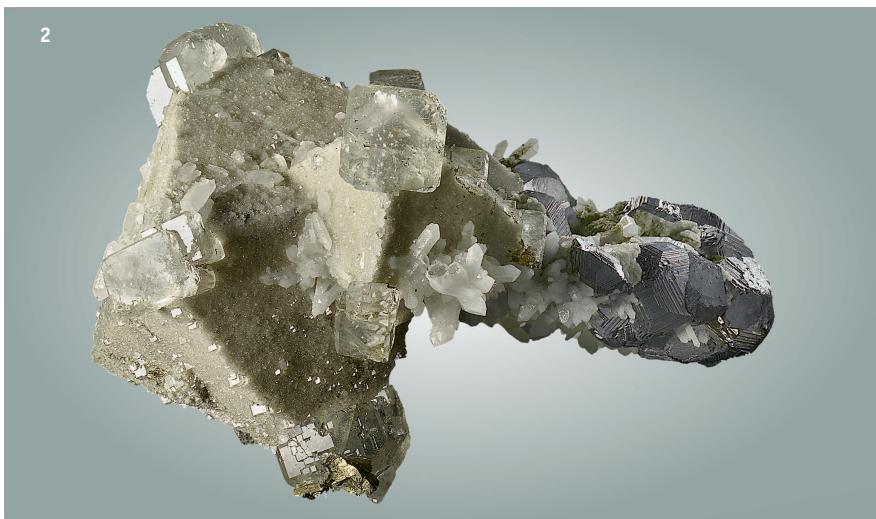
An inexhaustible source of fine collection-grade specimens has long been, and still is, the Dalnegorsk ore field in the Far East. This spring, again, one of the main attractions of the show was fluorite from the Second Sovetsky Mine, with the specimens collected in early 2016. These are splendid large octahedrons peppered with fine quartz, with epitaxial overgrowth on tops, and locally, on edges, of transparent colorless fluorite crystals (second generation) in the form of cubes complicated with minor rhombic dodecahedron faces (Figs. 1, 2).

Not far back from the Dalnegorsk ore field at the show was the Dalnegorsk deposit of borosilicates, which also abounded at the show, with the first of all to mention being axinite-(Mn) with unusually large (for this locality) crystals. The specimen showed both elegant single split crystals and their aggregates. A few large specimens were larger than 15 cm (Fig. 3).

Vasily Borzykh from the town of Miass, Chelyabinsk region, Southern Urals, displayed a few specimens of clear cubic fluorite crystals from Dalnegorsk, which were quite typical of the deposit in all but unusual blue color, varying from pale to bright in intensity (Figs. 4, 5). As it eventually turned out, the crystals were irradiated with ^{60}Co gamma-radiation. According to Vasily, the coloration had already persisted for a few months and had not faded at all. The effect of gamma-irradiation on fluorite is known to vary



1. **Fluorite** cubes with rhombic dodecahedron faces epitaxial on octahedral fluorite crystal.



2. Cubic **fluorite** epitaxial on octahedral fluorite with quartz and galena, 8 x 12 cm, Second Sovetsky Mine, Dalnegorsk, Far East, Russia. Specimen: O.S. Bartenev.

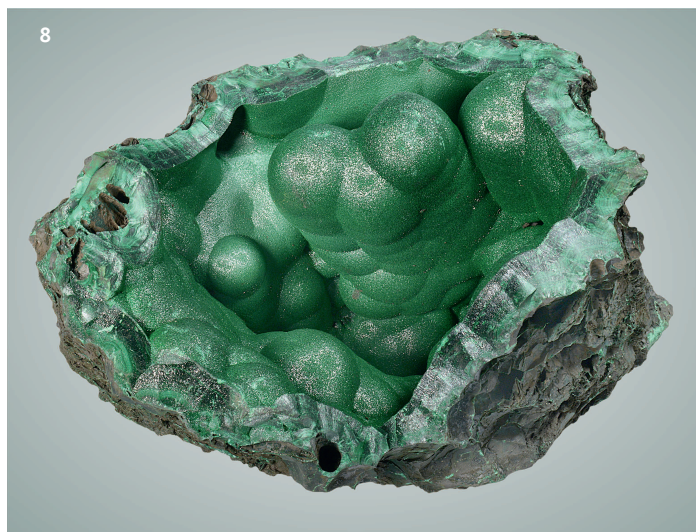
7. Pseudooctahedral crystal (1.8 × 2.0 cm) and contact twin (1.2 × 2.2 cm) of **sphalerite** on a matrix of silicified sandstone.
Dzhezkazgan, Kazakhstan.
Specimen: I.V. Pekov (purchased from the *Russian Minerals Co.*).



8. **Malachite**. 16 × 20 cm. Sepon, Laos.
Specimen: D.V. and O.A. Davydovs.

9. Pale blue **corundum** crystal.
2 × 7 cm. Passara, Badulla, Sri Lanka.
Specimen: *Russian Minerals Co.*

10. Pale green **corundum**.
2 × 10 cm. Passara, Badulla, Sri Lanka.
Specimen: *Russian Minerals Co.*



kazgan, Kazakhstan. The specimen is an aggregate of a pseudooctahedral (consisting of two equally developed tetrahedrons) 2 cm crystal and a spinel-twinned one (of roughly the same size) on a matrix of silicified sandstone (Fig. 7).

Specimens from non-CIS countries also were not rare at all. For example, Dmitry and Olga Davydovs presented a beautiful large malachite geode with a large pseudostalactite in it from the Sepon mine, Laos (Fig. 8).

Two very large, up to 7 and 10 cm, classic barrel-shaped corundum crystals (one pale blue and the other pale green) from the Passara mine, Badulla, Sri Lanka, were in a display of *Russian Minerals Co.* (Figs. 9, 10).

References

- Bass M.N. (1957) Effects of gamma irradiation on physical properties of minerals // *American Mineralogist*, 42(1–2), pp. 100–104.
- Burr K.F., Penhale L.G. (1966) Gamma-irradiation produced colour centres in English fluorite // *Journal of Physics and Chemistry of Solids*, 27(11–12), pp. 1949–1951.