BLUE
mountains

Weisseck Mt., Lungau, Salzburg, Austria, 2711 meters above sea level

Fluorite, Calcite, 14 x 10 x 7,5 cm

Weisseck Mountain (peak elevation 2,711 meters) is located on the western side of the mountain range known as the Lower Tauerns (Niedere Tauern), a part of the eastern Austrian Alps. The Lower Tauerns are a result of the collision of the African and European plates, an event which began in the Jurassic and continues today. A nappe or thrust sheet structure of schists and limestones created by this event typifies the geology of the area. The white, karst (cavern-filled) Felsgestalt limestone unit in the Lower Tauerns has been found to host fluorite mineralization at Weisseck Mountain. The white (weiss) color of the limestone gave the mountain its name. Dissolution of the limestone created openings in which the fluorite crystals have formed.

View to Weisseck east side (photo Lasshofer Hans)

HISTORY

The Weisseck Mountain area has long been famous for fine fluorite specimens. The first volume of Viktor von Zepharovich's Mineralogisches Lexicon für das Kaiserthum Österreich ("Mineralogical Lexicon of the Austrian Empire") (1859; covering the years 1790–1857) mentions pale blue to violet-blue fluorite cubes from Weisseck. Ludwig Ritter von Köchel's Die Mineralien des Herzogthumes Salzburgs ("The Minerals of the Dukedom of Salzburg") (1859) also mentions fluorite discoveries at Weisseck Mountain. The mineral collections of the House of Nature museum in Salzburg and the Museum of Natural History in Vienna contain documented crystals from the classic finds of the 19th century. Provenance questions existed even in those early days, as von Köchel regarded certain specimens labeled "Konigstuhlhorn, Rauris" as more likely being from Weisseck, indicating his depth of knowledge concerning the morphology of the area's specimens. Since those early explorations, additional cavities in the hard limestone and dolomite marbles of the area have continued to be discovered. In the 1980s, a group of Viennese collectors discovered a fluorite pocket near Lake Rieding on the northwest flank of Weisseck Mountain, 600 meters below the summit. The fluorite they recovered is in the form of green and violet cubes, most with matte luster and measuring 2 to 3 cm on edge, intergrown and as individual crystals on a limestone matrix. A few exceptional specimens showing crystals to 5 cm with bright luster were also recovered, along with some fluorite of an unusual aquamarine color. The discovery of the summit cleft is descripted in Mineralogical Records, July issue 2010.

Weisseck, Fluorite, Summit Cleft 2001

Lower entrance to the large Summit Cleft (photo Reinhold Bacher)

In the beginning of July a group of Strahler from Lungau managed to open up another cleft through a passage of clay. The large Summit Cleft was discovered! The clay aged there for decades. We removed the clay and could uncover a vein slightly rising upwards.

The small passage was completely filled with clay originally (photo Reinhold Bacher)

The passage covered in clay is around 4 meters long. In the end of the passage we found a pinewood chip (a chip of wood soaked in bitumen which was used as source of light in the Middle Ages). In this

area we could also find the first beautiful fluorit crystal specimen. All the crystals in this area had loosened from the rock and lay partly covered with clay on the floor.

Newly salvaged intergrown dice of fluorite (photo Reinhold Bacher)

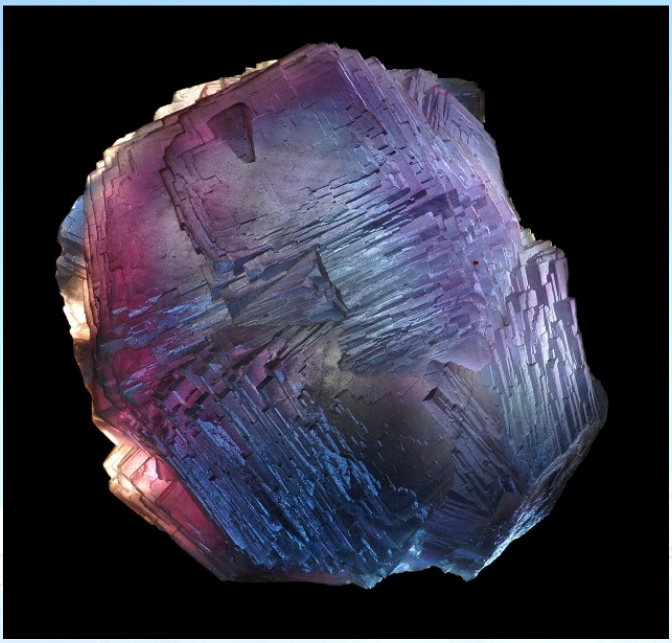
Newly salvaged intergrown dice of fluorite, photographed outdoors (photo Reinhold Bacher)

In the evening the fluorit crystals were divided and I received this specimen – not bad for our first time at the Summit Cleft!

My first tug after the first tour: a perfect dice of twins, 6,5 cm edge length (photo Reinhold Bacher)

The same specimen with light backlit (photo Reinhold Bacher)

The fluorites show an intense square texture and on the edges a stair-like structure. Many fluorites are dark purple and do not show their color. But, if one illuminates them from behind they start to shine in many different shades.



Sheer intergrown dices (photo: Watzl Anton Sen.)

Specimen from the last tour to Weisseck in 20018 (October), 34 x 16 x 8 cm (photo: Watzl Anton Sen.)