Mineral Shows of 2019: Tucson, USA

TUCSON 2019

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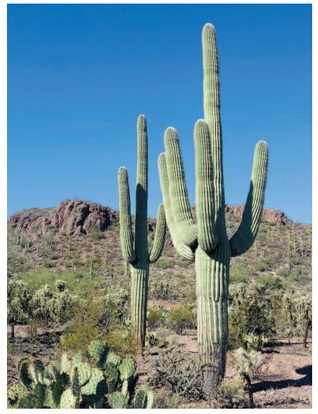


1. Giant Saquaro cactuses are symbol of Arizona.

Well, those are perhaps right who say: *"The Tucson Show is destined to success"*. This year argued heavily in favour of such enthusiasts who are, first of all, collectors and lovers of stone. However, the professionals also had something to look at. The show expands every year, and the number of exhibitions exceeded forty this time. The number of local shows in Tucson increases regularly. The *Just mineral show* (Elks Lodge Hotel) is one of them. This 'young' exhibition became very popular among the collectors due to combination of high-quality specimens and good prices. A small group of dealers formed the core of the show, and they are all well-known in the world of mineral lovers.

In addition to traditional centres of gravity, such as *Arizona Mineral & Fossil Show* and *Fine Mineral Show*, the other mineral clusters emerged. The mineral block on Oracle Street is the newest. Its core assembled around the magically built exhibition complex, specially dedicated to *The Mineral City Show* (Chief Manager Graham Sutton). There are many well-known names among the dealers who opened their booths. These include *Collector's Edge, Wendel Minerals, Kristalle, Spirifer Minerals, Green Mountains Minerals, Matrix India* and others.

What kind of interesting stuff could we find here? First of all, there was abundant and diverse fluorite. Judging from the exhibitions of the show, Europe regained its dominance and pushed out China, which was the main supplier of collection-quality fluorite during recent years. In particular, outstanding specimens of emerald-green transparent fluorite, pictorially spread over the snow-white matrix, consisting of calcite, were extracted at the Diana Maria Mine, Weardale, Durham, England. They occupied the showcases of the *Crystal Classic*, which leads the mining. Dan Weinrich brought beautiful raspberry-coloured fluorite crystals from Ireland (Shannaheasteen, Galway County). Rare specimens with large (up to 10 cm) magenta fluorite crystals from Strzegom, Poland could be seen at the displays of Tomasz Praszkier (*Spirifer Minerals*). He also had specimens of blue and pink fluorite from France and Italy, as well as first-class specimens from the USA, Mongolia, Madagascar and Russia.

The old European mines, which work again, recently yielded interesting specimens. For instance, famous Panasqueira Mines (Covilhã, Castelo Branco) in Portugal produced outstanding specimens of fluorapatite in association with siderite, ferberite, quartz and fluorite. The colour of fluorapatite varies from white and green to deep violet.

The Trepča Mine in Kosovo pleased the collectors with a new find of large specimens of boulangerite and first-class to world-class specimens of up to 15 cm pyrrhotite.

2. Christian Stephano near his display, awarded as best educational case at the TGMS 2019 show.

3. Brian Swoboda and David Wilber are ready for the shooting *'What Hot in Tucson 2019'* video.

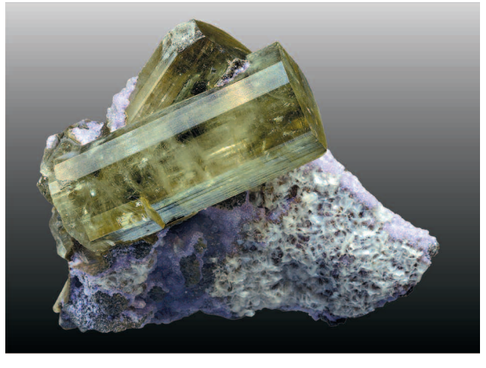
4. Mikhail Anosov with his super specimen of **corundum** roses from Ilmeny Mts, South Urals, Russia.

5. **Fluorite** (cubic second generation of fluorite growing syntaxially on previous generation) with **quartz**. 8 cm. Deer Trail Mine, Mount Baldy District, Cottonwood Creek, Plute Co., Utah, USA. Specimen: *'Spirifer Minerals.'*

6. **Fluorite** with **calcite**. 9 cm. Choir area, Gobi Desert, Mongolia. New finds of 2018. Specimen: *'Spirifer Minerals.'*

Photo: Michael Leybov, if other not mentioned

7. **Wulfenite**. 13 x 12 cm. Jianshan Mine, Ruoqiang Co., Xinjiang Autonomous Region, China. Specimen: *'Weinrich Minerals.'*



8. **Fluorapatite** with **fluorite**. 8 x 7 cm. Panasqueira Mine, Covilhã, Castelo Branco, Portugal. Specimen: *'Weinrich Minerals.'*

21. **Quartz** with **rutile** and **anatase** inclusions. Manihar Mine, Kullu valley, Himachai Pradesh, India. Specimen: Riccardo Prato, *'Cristalli.'*

22. **Silver** with **quartz** & **calcite**. 9 x 5 cm. Vetagrande, Zacatecas, Mexico. Specimen: *'Kristalle'*, ex. Dr. Werner Leiber. Photo: Jeff Scovil.

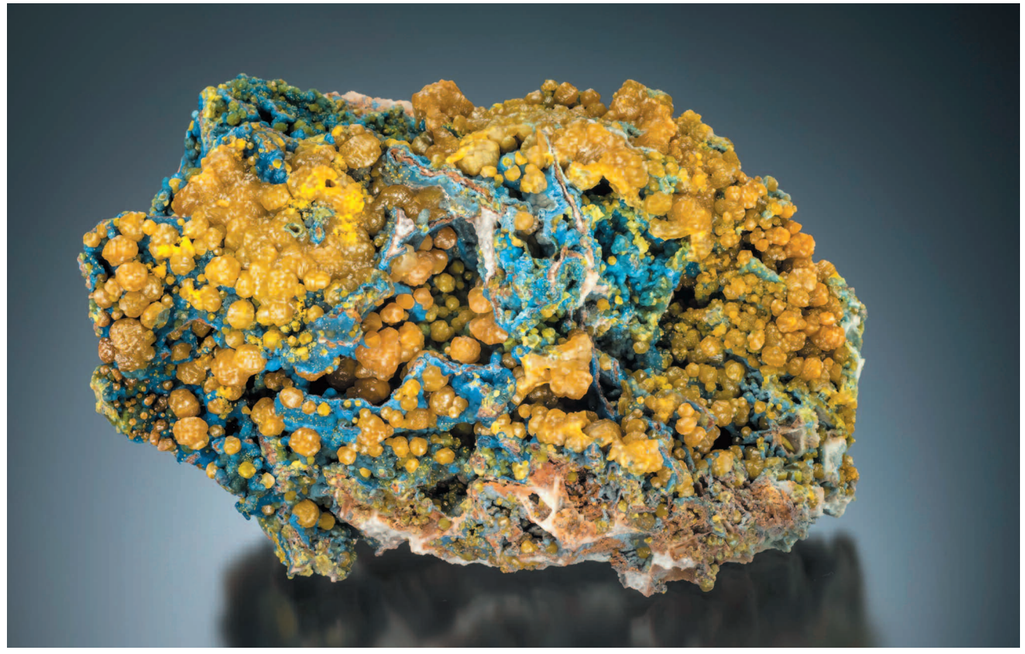
23. **Beryl** (var. aquamarine) with **quartz** and **muscovite**. 'The King of Nepal.' 21 cm. Tapeljung District, Mechi Zone, Nepal. Specimen: *'Green Mountains Minerals.'* Photo: Tom Spann.

24. **Fluorite** with **calcite** on **sphalerite**. 15 cm. Dalnegorsk, Russia. Specimen: *'Natural Creations.'* Photo: James Elliott.

25. Group of smoky **quartz** with **microcline** (amazonite) crystals. 11.4 cm tall. Smoky Hawk Mine, Crystal Peak, Teller Co., Colorado, USA. Specimen: *'Collectors' Edge'*, Steve Neely ex-collection. Photo: Riley Owen.

26. **Cuprite** crystal (2 cm) on **malachite** and **chrysocolla**. 12 cm. Mashamba West Mine, Katanga Prov., DR Congo. Specimen: *'Stonetrust.'* Photo: Joaquim Callen.

27. **Mimetite** with **plumbogummite**. 14 x 10 cm. Roughton Gill Mine, Cumbria, England, UK. Specimen: *'Kristalle'*, ex. Philadelphia Academy of Science. Photo: Jeff Scovil.



53. Franz Xaver Freiherr von Wulfen (1728–1805).

The Austrian Mineral Wulfenite.

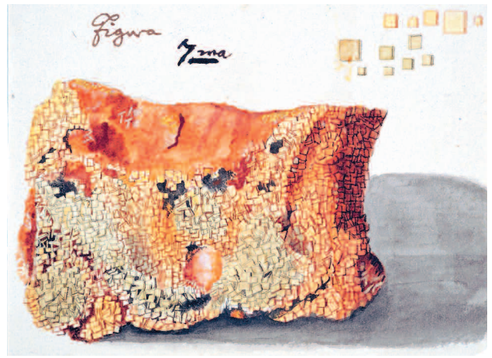
Special Exhibition at the TGMS 2019

Dr. Vera M.F. Hammer, Natural History Museum Vienna

Originally, the mineral wulfenite was named in 1772 as plumbum spatosum flavo pellucidum, ex Annaberg, Austria by the mineralogist and metallurgist Ignaz von Born (1742–1791). In 1781, the botanist Nikolaus Joseph von Jacquin (1727–1817) called the same mineral Minera plumbi spatosa Carinthica. The mineral was renamed in Kärnthnerischer Bleyspath in 1781 and 1785 by Franz Xaver von Wulfen and in 1845 in wulfenite by the mineralogist Wilhelm Karl von Haidinger (1795–1871) in honour of Franz Xavier von Wulfen's monograph on the lead ores of Bleiberg, Carinthia, Austria. Franz Xaver von Wulfen was born in Belgrade, Serbia.

His father, Christian Friedrich von Wulfen, was a high-ranking lieutenant in the Austrian Army. His mother, née Mariassy, was a Hungerian countess. Wulfen's early education took place at the Jesuit Gymnasium in Košice, Slovakia. In 1745, at the age of 17, he joined the Order of the Society of Jesus (Jesuit order) in Vienna. After the usual two noviciate years, he first completed his knowledge of Latin and Greek and then made philosophical studies, which he supplemented by further studies with great interest in mathematics and in the natural sciences. In 1753, he became a teacher for the lower studies (grammar) in Gorizia, Italy and in 1754 an educator at

54–57. Four of Mellings hand-coloured wulfenite illustrations. The original paintings are belongings of the Natural History Museum Vienna. Photo: Alice Schumacher.



58. **Wulfenite** (*'Gelbbleierz'*). 9 x 6 x 2.5 cm, 106 grams. Bleiberg, Karinthia, Austria. NHM Vienna, Inv. No. An132, 1843.

59. **Wulfenite**. 8 x 6.5 x 3 cm, 96 grams. Grube Stefanie, 12 Lauf, Bleiberg, Karinthia, Austria. NHM Vienna, Inv. No. L4446, 1975, purchased from W. Knobloch, Austrian mineral dealer.

60. **Wulfenite**. 3 x 2 x 1.5 cm, 10 grams. Bleiberg, Karinthia, Austria. Donated by Franz Ritter v. Hauer, I intendant of the museum. NHM Vienna, Inv. No. D8948, 1887.

61. **Wulfenite** (*'Gelbbleierz'*). 12.5 x 8.5 x 4.5 cm, 456 grams. Bleiberg, Karinthia, Austria. NHM Vienna, Inv. No. An143, 1843.

Foto 54–61:
Alice Schumacher, NHM Vienna.

the Imperial Academy Theresianum in Vienna. In 1755, he began his theological studies in Graz. Later he taught mathematics and philosophy in Ljubljana, Slovenia. Wulfen built comprehensive reference collections of natural objects found around Klagenfurt, including probably a modest collection of minerals, whose whereabouts are unknown. His observations were published in a series of well-illustrated works. One of his first books on minerals, the Abhandlung vom kärnthnerischen Bleyspathe, was published in 1785. The overall 46 wulfenite- and lead mineral paintings from the Bleiberg District depicted (including the 4 reprinted here), are finest hand-coloured mineral illustrations by Joseph Melling (1724–1764). In 1763, Franz Xaver von Wulfen was ordained a priest and came to Klagenfurt, Carinthia. He held various positions there: teacher of physics, mathematics, logic and metaphysics, until his retirement in 1768 and became a pastor for the Ursuline Order.

Wulfen died on 16th March 1805 in Klagenfurt of pneumonia.

References

Klemun, M. (**1989**) Franz Xaver Freiherr von Wulfen – Jesuit und Naturforscher. – Carinthia II, 179/99, pp. 5–17.

Neumeier, G. (**2019**) Who's Who in Mineral Names: Franz Xaver Freiherr von Wulfen (1728–1805). – Rocks & Minerals, 94/1, pp. 88–91.

Niedermayr, G. (**1989**) Der Wulfenit – ein Kärntner Mineral? – Carinthia II, 179, 99, pp. 29–45.

Prasnik, H. (**2016**) Die Wulfenit-Vorkommen Kärntens. Eine Zusammenstellung aus Anlass eines ungewöhnlichen Jubiläums. – Carinthia II, 206/126, pp. 141–156.

Schroll, E. (**1985**) Franz Xaver Freiherr von Wulfen – 200 Jahre Wulfenit. – Mitt. Österr. Mineral. Ges., 131, pp. 121–127.

62. *'Natural Creations'* display with huge **beryl** (morganite) crystal (45 x 28 cm).

63. A display *'John Veevaert Memorial'* by Martin Zinn.

64. A display *'Minerals of Bazhenovskoye chrysotile asbestos deposit, Middle Urals, Russia'* by Alexander B. Loskutov and Elena A. Novgorodova.

65. A display *'Copper is Loved'* by Terry Huizing, curator of the Cincinnati Museum Center.

Obviously, not all the exhibition displays were dedicated to wulfenite. For example, one of the displays of Gail and James Spann was dedicated to the minerals from China (*Chinese Mineral Treasures*). Herbert and Monika Obodda created a composition from the Meissen porcelain with mining motifs. They called it *White Gold*. The Cincinnati Museum Center (curated by Terry Huizing) presented an exposition dedicated to copper. Alexander B. Loskutov and Elena A. Novgorodova, mineral collectors from Asbest city (Middle Ural, Russia) presented a showcase dedicated to the Bazhenovskoe chrysotile-asbestos deposit from the Middle Urals.

The Main Show had many miracles of the stone world. Display of *'Natural Creations'* had a regular crystal of beryl (morganite) of deep raspberry colour and unusual size, 45 cm in height and 28 cm across. Not too far, *RNS Minerals* from Canada demonstrated huge blocks of quartz penetrated by thick veins of native gold, extracted in September 2018 from the Father's Day vein at Beta Hunt Mine in Australia. Such natural wealth can be rarely seen in life, because such nuggets are usually quickly turned into bullion gold. Visitors of the Main Show had a unique opportunity to see the rarest rich nuggets in their original form, not even realizing that.

Among the endless diversity of the exhibition displays, there were two showcases dedicated to the same sad event. These were displays of Martin Zinn (John Veevaert Memorial) and friends of John, with his portrait and obituary.

Next year's theme will be World Class Minerals, and we will also be celebrating 50 years of the *Mineralogical Record*.

In conclusion, we recognize the fragmented nature of our notes and hope that readers will find something interesting in them.

EPIDOTE "BOW TIES" FROM PAKISTAN

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1. **Epidote** 'bow tie.' 2.9 cm long. Ras Koh Mts, Kharan District, Balochistan, Pakistan. Specimen and photo: John Rakovan.

2. **Epidote** 'bow ties' on a calcite matrix. 4.1 x 4.0 cm. Ras Koh Mts, Kharan District, Balochistan, Pakistan. Specimen: Ziga Mineral. Photo: Jeff Scovil.

Described in the literature of mineral ontogeny as an example of a split crystal or an intermediate morphology in spherical crystal formation (Grigor'ev 1965; Godovikov 2003; Kantor 2003), bow ties or the bow tie habit (a description more commonly used in the Western literature) are well known in certain minerals; the archetypical example being stilbite. Other minerals, such as apatite, are found in this habit but very rarely. A recent find in the Ras Koh Mountains, Balochistan, Pakistan has yielded some fantastic examples of this mineralogical curiosity in epidote. They are found as isolated single bow ties (Fig. 1), clusters of two or more bow ties, and more rarely isolated bow ties on matrix (Fig. 2). Although epidote has the tendency to form sprays or fans of crystals, the highly exaggerated bow tie morphology of these recent specimens is unique, and their size is exceptional[1].

These first appeared in the summer of 2017; David Ziga of Ziga Mineral first showed samples in September of that year. Apparently there have been several finds since that time, and at the Tucson show this year (2019) a couple of dealers including Fine Art Minerals, Saphira Minerals, Spirifer Minerals, and Ziga Mineral had many nice specimens for sale.

References

Godovikov, A.A. (**2003**) Natural Mineral Forms: Exhibit In Fersman Mineralogical Museum, Russian Academy of Science. *Ocean Pictures Ltd.*

Grigor'ev, D.P. (**1965**) Ontogeny of Minerals. Israel Program for Scientific Translations.

Kantor, B.Z. (**2003**) Crystal Growth & Development: interpreted from a Mineral's Present Form. *Mineralogical Almanac*, vol. 6.

1. Editor's Notes

The epidote bow tie crystals were also found in Peru and, especially, Morocco (Imilchil in High Atlas Mts). Both the bow tie and the fan-like habits are the results of the same splitting process. The difference lies behind the seed crystal initial position upon the matrix. If the seed has adopted the lying position (parallel to the matrix), the crystal is able to grow and split by both of its terminations; the product of such development to be the bow tie habit. Conversely, at the seed upright or inclined position, the crystal is able to grow and split by its only one loose termination, the result to be the fan-like habit. But to adopt lying position is, all other things being equal, much less probable for a seed than to take any of the countless other (upright or inclined) positions. That's why the bow tie crystals are much rarer compared with the fan-like ones of the same species.