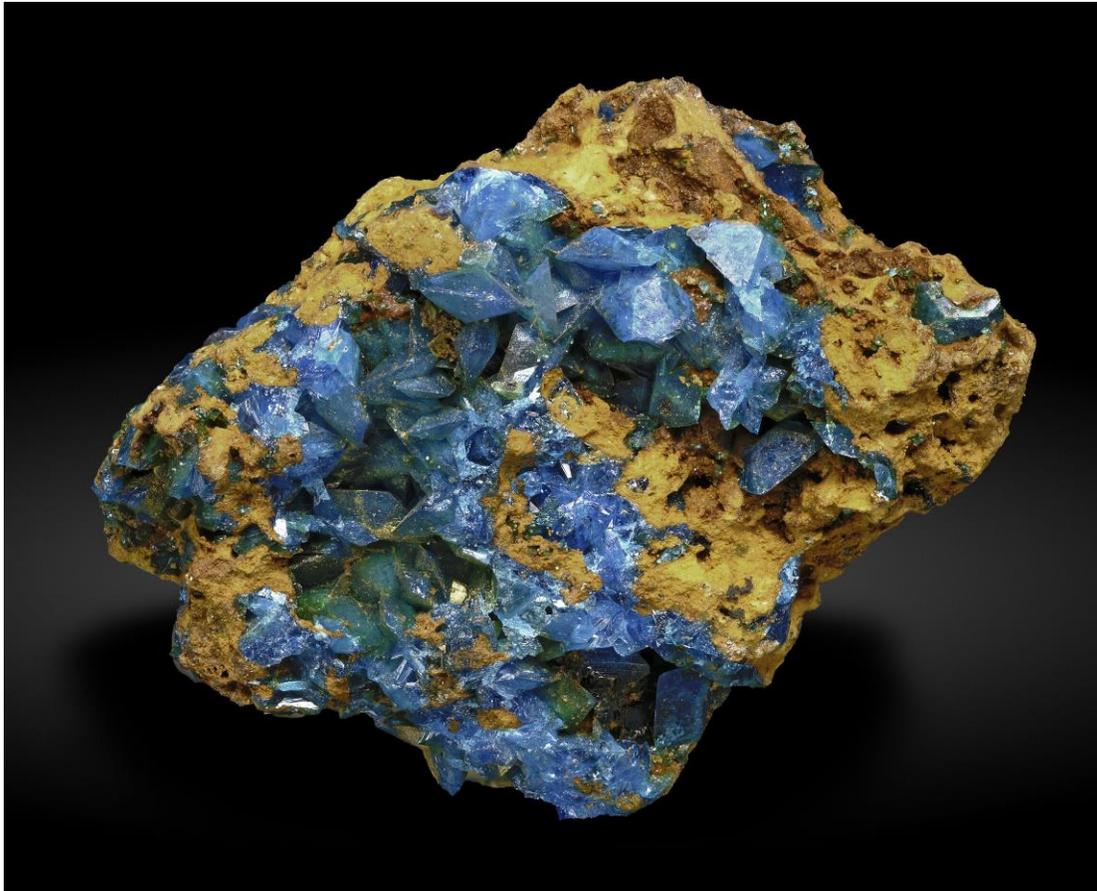


Prefecture, Hunan Province, China. As all admirers of classic mineral occurrences know, liroconite has only been seen in really fine specimens from mining between the 1790s and the mid-19th-century at Wheal Gorland (i.e. the Gorland mine, “Wheal” being an old Celtic term for “mine”), Gwennap Parish, Cornwall, England. You may see these antique specimens of the rare and beautiful hydrous copper aluminum arsenate in major museum collections, but of course you won’t see them on the specimen market except when old private collections are recirculated. But Jordi’s new Chinese liroconites may be a hint of hope for contemporary collectors: they are (so far - ?) only smallish thumbnails, but they do feature sharp, bright sky-blue, wedge-shaped liroconite crystals to 2 mm sprinkled on 1.4 to 2.5-cm lumps of brown gossany-looking—nicely color-contrasting—matrix. Always scientifically conscientious, Jordi writes that “The specimens have been analyzed in depth [and] the curious...greenish tones in the crystals [have] turned out to be due to slight impurities of iron.” The specimen pictured here is Jordi’s smallest but best, with a price at the top of his range for the lot, namely \$385.



Liroconite, 1.4 cm, from the Xianghualing ore field, Linwu, Chenzhou Prefecture, Hunan Province, China. Fabre Minerals specimen and photo.

In my last online report, as well as, briefly, in the 2023 Tucson Show report in the upcoming May-June issue, I mentioned the beautiful miniature to large-cabinet-size specimens of **celestine** which are now trickling out from a remote locality given as Darai Laman, Badghis Province, Afghanistan (not *Badakhshan* Province, as I speculated, as it turns out incorrectly, in online report #65). Several superb examples of this new Afghan celestine are now being offered on Ghulam Mustafa's *Fine Art Minerals* website (fineartminerals.com), Mustafa commenting in his distinctive voice that the crystals, reaching 7.3 cm long and 5 cm thick, are "the deepest color-saturated large fatty crystal[s] I have ever seen." The nearly complete, translucent to transparent, lustrous blue celestine crystals rest lightly in vuggy masses of brownish white limestone with jagged surfaces covered by drusy white calcite crystals. The piece shown here, probably Mustafa's best, is priced at \$1,800.



Celestine, 7.5 cm, from Darai Laman, Badghis Province, Afghanistan. Fine Art Minerals specimen and photo.

The website of the Canadian dealership belonging to Todor Georgiev and Nadya Georgieva, *Quebul Fine Minerals* (quebulfineminerals.com), offers a wide range of one-of-a-kind, mostly thumbnail and miniature-sized, with a strong leaning towards pretty things from Canadian localities. Currently the site is especially well stocked with beautiful **grossular** specimens from the Jeffrey mine in Quebec—for 21 years now a defunct locality, since asbestos mining there ceased in 2002. (I should mention in passing that the small nearby town once called “Asbestos” has recently changed its name to “Val-des-Sources”—“Valley of the Springs”—because it was felt that a town named for a notorious carcinogen would be unlikely to attract hordes of tourists; you may change your labels now.)

The majority of Jeffrey mine grossular specimens seen on the general market show pale to deep *orange* dodecahedral and trapezohedral crystals, not infrequently gemmy all the way through and sometimes approaching 5 cm. But the grossular crystals come also in pink and green, and a few are color-zoned, with green cores and pink or nearly colorless outer zones, and rarest of all are lustrous *white* crystals. The Quebul website now offers examples of all of these grossular colors and color-combos, mostly as loose crystal clusters, at prices much lower than are asked generally by the few other dealers who retain stashes of these gorgeous garnets. Two of the better of the Jeffrey mine grossular thumbnails now to be seen on the Quebul site are pictured here. First, take a good, appreciative look at the 2.9-cm cluster of *white* dodecahedral crystals: this piece was once owned by Rock Currier and is priced now by Quebul—because of the rarity of that whiteness—at \$970. But you can forget about ordering the lovely pale pink specimen since *I have just bought it myself* for \$340. As I say, though, the site offers many more comparably fine specimens of Jeffrey mine grossular, mostly at low three-figure prices.



Grossular, 2.9 cm, from the Jeffrey mine, Val-des-Sources, Quebec, Canada. Ex Rock Currier collection. Quebul Fine Minerals specimen and photo.



Grossular, 2.4 cm, from the Jeffrey mine, Val-des-Sources, Quebec, Canada. Quebul Fine Minerals specimen and photo.

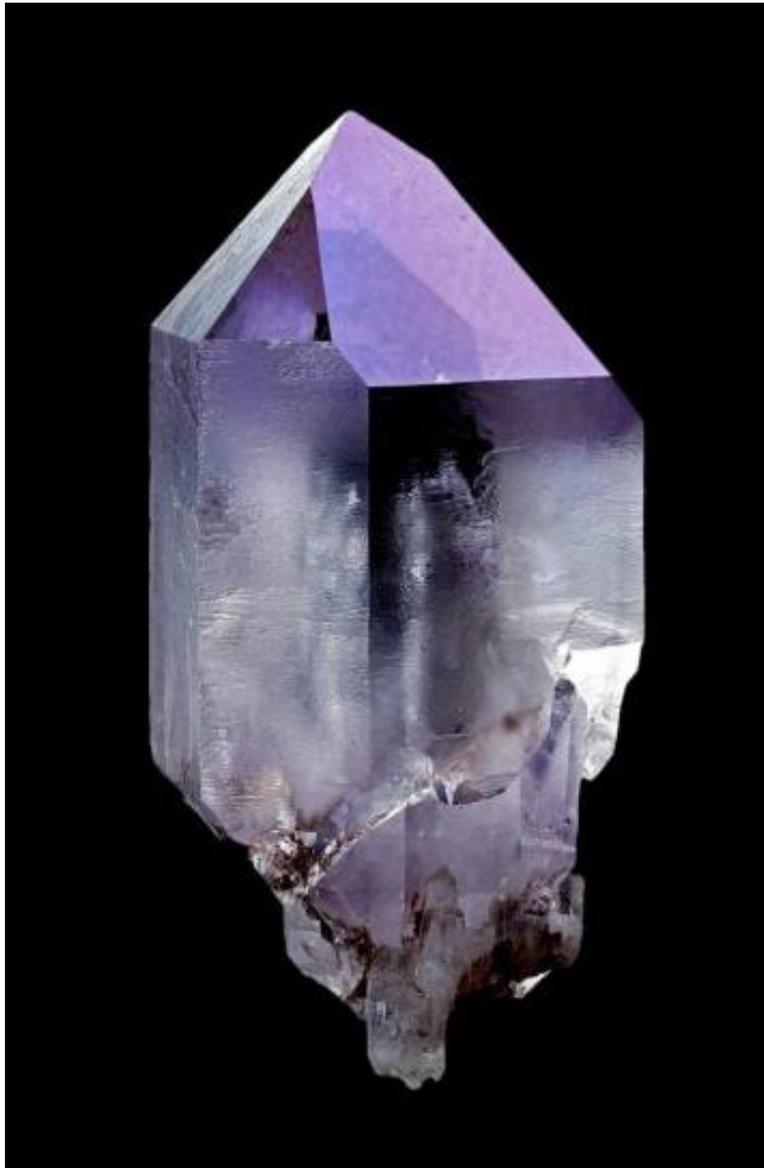
Ray McDougall of *McDougall Minerals* (mcdougallminerals.com) now has a “New Specimens” update with 11 excellent specimens of **scepter amethyst** from the Chibuku mine, Chiredzi District, Masvingo, Zimbabwe. One of the things I like about Ray’s website is that he offers lengthy accounts of contemporary occurrences and their exploitation: in this case his little essay tells us (among other things) that two distinct diggings for amethyst exist in the district, called the “Shangani” and “Chibuku” mines; the latter is now “run by two principals, Sultan and Baba, as a commercial specimen mining operation.” Work at Chibuku (he goes on) was halted during the Covid pandemic, but it resumed in November 2022. After an initial period of hand-mining by locals, some heavy equipment was brought in, “and mining now progresses...with drilling and blasting to uncover pockets in the hard rock... Most crystals [recovered since the first work in 2012] have been moderately to badly damaged, [but] the best from the 2022-

2023 workings...are better than most specimens from surface digging and hand recovery in the past.” It is some of these latter elite examples, of course, that Ray currently offers online. The specimens, ranging in size from 4.8 to 6.2 cm and in price from \$85 to \$200, have sharp, largely gemmy, pale to deep purple scepter heads with fugitive smoky tints and with varying helpings of dusty red hematite inclusions.



Amethyst, 6.2 cm, from the Chibuku mine, Chiredzi District, Masvingo, Zimbabwe. McDougall Minerals specimen and photo.

The website of the dealership called *MinerAlps* (mineralps.com), run by a fellow named Laurent Bernard, is well stocked with specimens from, as you've guessed, Alpine localities. Go to the "Minerals" part of the site (Laurent also sells gemstones and jewelry) to find very good, in some cases superb, examples of pink fluorite, adularian orthoclase, titanite, quartz gwindels, even gold from the little-known locality of Brusson, Aosta, Italy—and there is "Alpine" material from Pakistan and India too. Here, as a sort of follow-up to the African amethyst scepters just noted, is a beautiful thumbnail-size **amethyst scepter** from the Tyrol region of Austria, bearing a low (I'd say) price of 180 Euro—be it noted that good amethystine quartz is rare from the Alps.



Amethyst scepter, 2.9 cm, from the Haupen Valley, Firkenberg, Schwaz District, Tyrol, Austria. MinerAlps specimen and photo.

And here is an “open,” pellucidly transparent, hefty **quartz gwindel** from new work reportedly going on in the mountains of Pakistan. *MinerAlps* is a website to watch if you’re into typical Alpine items, whether or not from Europe.



Quartz gwindel, 7 cm, from the Shalman area, Khyber Agency (FATA), Pakistan. MinerAlps specimen and photo.

Going on in quartz mode for just one more entry, I will direct you to Rudolf Watzl's *Saphira Minerals* website (saphiraminerals.com), wherein, in a March 30 update, Rudolf shows us a dramatic 9.1-cm specimen of **quartz with hematite phantoms** from "a new find near the city of Hyderabad" in the Hyderabad District, Telangana State, India. There is only this single example on the Saphira site, and the specimen is already marked "sold," but I point to it here because I've lately seen several lots of these specimens around the market, and quartz enthusiasts, if not already aware of the occurrence, should get up to speed. The colorless, transparent, lustrous quartz crystals are of conventional form, but what's striking is the clarity and precision of the phantoms within: the fine-grained red hematite dustings *exactly* trace outlines of earlier quartz growth stages.



Quartz with hematite inclusions, 9.1 cm, from the Hyderabad District, Telangana, India. Saphira Minerals specimen and photo.

In a March 30 update of his *IC Minerals* website (icminerals.com), Isaias Casanova shows us two pretty miniatures from what's apparently a new find at the Apex mine, San Carlos, Chihuahua, Mexico. This old lead mine has earned a good reputation for specimens of vanadinite associated with calcite, and within the past few years there have been renewed market pulses of fine vanadinite specimens from the mine (see the report on the 2019 Denver Show in the March-April 2020 *Mineralogical Record*, and before that, my article on the mine in the November-December 2008 issue). The very recent vanadinite crystal clusters mostly lack calcite, and unfortunately the locality's very rare, very superlative wulfenite has not re-appeared for a long time, but be of good cheer, the new miniatures which Isaias offers are something different from these anyway—they are **descloizite**, showing up as gleaming red-brown spherical aggregates of microcrystals scattered on cryptocrystalline quartz. For the 3.8-cm specimen shown here Isaias asks \$70; the other example, slightly larger, costs \$80.



Descloizite on quartz, 3.8 cm, from the Apex mine, San Carlos, Chihuahua, Mexico. IC Minerals specimen and photo.

That same March 30 update for *IC Minerals* also has three of the new blue celestine specimens from Afghanistan, as well as some intriguing miniatures of goethite pseudomorphous after legrandite from the great and famous Ojuela mine. Isaias had some of these odd Ojuela pseudomorphs at the Tucson Show too, and to see a picture of one you will have to wait to receive your May-June 2023 issue; meanwhile let's admire Isaias's two fine miniatures of a seldom-seen classic: **cyanotrichite with brochantite** from the Grandview mine, Coconino County, Arizona. The Grandview, a copper mine perched at a site half-way down into the Grand Canyon, ceased being worked for ore in 1916, but its remains can be reached by means of a dilapidated trail down into the canyon from the South Rim. This place, beloved by Arizona collectors, is the type locality for cyanotrichite, and its specimens of the hydrous Cu-Al sulfate (typically intermixed with bright grass-green brochantite) are probably the world's best. The better of the two miniatures now with Isaias Casanova measures 4.8 cm and costs \$100, and Isaias notes on the website that these two Grandview specimens had been "stashed away someplace"—probably for quite some time, I would add—before they appeared in Tucson in 2023.



Cyanotrichite on brochantite, 4.8 cm, from the Grandview mine, Grand Canyon, Coconino County, Arizona. IC Minerals specimen and photo.

There are many alluring things to be seen on the “Spring Updates...classics and new finds” mineralogical adventure tour on the website of Kevin Downey’s *Well-Arranged Molecules* (wellarrangedmolecules.com). All of the specimens along the way of the tour are one-of-a-kind, and three of the four shown here date back some decades, but the **marcasite “snakes”** of the Linwood mine, Buffalo, Scott County, Iowa are quite new (well okay, they’re only about a year old: a couple of Midwestern U.S. dealers debuted Linwood marcasite “snakes” at the 2022 Tucson Show and brought still more to the 2023 Tucson Show). Kevin’s single example is near the top of the quality range among those I recall having seen, being a sinuous structure of sharp, vaguely snake-scaly marcasite crystals, and brilliantly lustrous besides. It measures 6.6 cm, and Kevin asks \$420 for it.



**Marcasite, 6.6 cm, from the Linwood mine, Buffalo, Scott County, Iowa.
Well-Arranged Molecules specimen and photo.**

Hopscotching one's way through the *Well-Arranged Molecules* update, one is pleased to come on a big, showy matrix specimen of Chinese **euclase** with equant, colorless and transparent, lustrous crystals to more than 1 cm. Such specimens appeared, very sparsely, during the late 2000s—Kevin Downey's note attributes this one to a "one-time find in 2007"—but I mention it here in part to note some confusion (as so often for China) about the locality designation. For a while these beautiful euclase specimens were said to come from the Piaotang tungsten-tin mine, Dayu County, Ganzhou Prefecture, Jiangxi Province, and Mindat to this day agrees, and that's how Kevin labels his piece. But Berthold Ottens, in his *China: Mineralien-Fundstellen-Lagerstätten* (2008), wrote with assurance that they were found in small prospect pits and outcrops in the region's Dayuling Mountains, not in the Piaotang mine itself. In any case this is very fine euclase, not at all resembling that from Colombia or Brazil, and specimens of it have just about disappeared from the market only 15 years or so after their first appearance. Kevin asks \$1,200 for this fine 6.8-cm example.



Euclase, 6.8 cm, from near the Piaotang mine, Dayu County, Ganzhou Prefecture, Jiangxi Province, China. Well-Arranged Molecules specimen and photo.

Subscribers to the *Mineralogical Record* have recently seen the article on the Dzhezkazgan, Kazakhstan copper mine in the July-August 2022 issue—and so you know that Dzhezkazgan is by far the world's best locality for the rare Pb-Cu-Fe sulfide **betekhtinite**. Specimens of this exotic, chalcocite-like species, with thin-prismatic metallic gray crystals laid in overlapping bundles over matrix of drusy quartz and/or masses of other metallic minerals, began to reach the West at the time of the fall of the Soviet Union but ceased doing so about 20 years ago. Kevin Downey is charging \$460

for this excellent 5-cm specimen of Dzhezkazgan betekhtinite on his “Spring updates” site.



Betekhtinite, 5 cm, from Dzhezkazgan, Karaganda, Kazakhstan. Well-Arranged Molecules specimen and photo.

Finally, what's a "what's new" report without one fine "what's old" from a classic German locality? Below, I give you (no no, I'm not *giving* you) a noble old cabinet-size specimen of **pyromorphite** from the St. Johannes mine, Zschopau, Erzgebirge ("Ore Mountains"), Saxony. Mining at Zschopau began in the 15th century, and according to Kevin it commenced in this particular mine in the year 1474. Zschopau pyromorphites are rare enough, but to find one with a specific mine attribution is very special. This particular specimen, which once belonged to French collector Eric Asselborm, comes with a single old label (there must have been many more through the years, but just one has made it down to Kevin). The prismatic crystals of yellow-green pyromorphite reach 1.2 cm long, and the 7.1-cm piece is in fine condition; its price is \$850.



Pyromorphite, 7.1 cm, from the St. Johannes mine, Zschopau, Erzgebirge, Saxony, Germany. Well-Arranged Molecules specimen and photo.

Another Erzgebirge locality has given up fine **fluorite** specimens in much more recent times. Most major ore mining around the town of Annaberg in the mid-Ore Mountains ceased before 1900, but after World War II some of the mines were re-opened by the Soviet-East German consortium SDAG Wismut to search for uranium ore for the Soviet nuclear weapons program. These latter mining activities ceased in the Annaberg District in 1960, but, during the early 21st century, teams of local collectors dug extensively in

the old mines and associated dumps. The main prizes they recovered are beautiful, sometimes very large, clusters of sharp, gemmy cubic crystals of fluorite which are either very dark purple (“black” fluorite) or yellow to yellow-orange. This latter-day classic German fluorite has been seen fairly commonly in dealers’ stocks, especially in Europe, down to the present day. More often than not the specimens are attributed only to the town of Frohnau in the Annaberg District, but Dan Zellner of *CZ Rockshop* does better: currently, on his website (danzrockshop.com), Dan is showing 17 splendid specimens of yellow fluorite from the Bergmännisch Glück (“Miners’ Luck”) mine near Frohnau. The translucent to transparent fluorite crystals are resplendently yellow-orange, and many have crisp blue and purple phantom lines parallel to their edges. Dan’s price range for the specimens is \$300 to \$850; the stellar example shown here costs \$650.



Fluorite, 5.5 cm, from the Bergmännisch Glück mine, Frohnau, Erzgebirge, Saxony, Germany. DZ Rockshop specimen and photo.

Surely the world’s most prolific **pyrite** locality is the Huanzala mine in Ancash Department, Peru. Ever since underground exploitation of the polymetallic deposit began in 1968, countless *tons* of beautiful pyrite crystal groups, some to very large sizes, have emerged from the Huanzala mine (together with masses of sparkling small pyrite crystals, called *chispas*, most commonly used as bases for animal figurines carved from lapidary materials). Huanzala pyrite specimens come in a huge variety of sizes and quality levels, but really good Huanzala pyrite in the thumbnail-to-miniature size range is surprisingly rather scarce on the market. So it was that Ibrahim Jameel of *Khyber Minerals* had lots of fun combing through, as he writes, “thousands” of small pyrite specimens from the Huanzala mine which another dealer had been accumulating over several years. Ibrahim purchased about 100 of these, and he offers 46 (yes, I counted them all) in an update on his website (khyberminerals.com) dated January 6, 2023. Nearly all of the specimens are loose groups of sharp, lustrous pyrite crystals without associated species, and none are priced higher than \$100; indeed, many cost less than \$20. Below, I show you four of the specimens, chosen almost at random from the selection that I, too, had fun poring over—for one thing, it is a challenge to the mind-muscles to try to identify crystal forms and form-combinations out of what seems a complete catalog of the isometric system as tallied by these 46 bright little items.



Pyrite, 3.1 cm, from the Huanzala mine, Huallanca District, Bolognesi Province, Ancash Department, Peru. Khyber Minerals specimen and photo.



Pyrite, 5.3 cm, from the Huanzala mine, Huallanca District, Bolognesi Province, Ancash Department, Peru. Khyber Minerals specimen and photo.



Pyrite, 4 cm, from the Huanzala mine, Huallanca District, Bolognesi Province, Ancash Department, Peru. Khyber Minerals specimen and photo.



Pyrite, 4 cm, from the Huanzala mine, Huallanca District, Bolognesi Province, Ancash Department, Peru. Khyber Minerals specimen and photo.

On the other extreme of the size (and price) range for pyrite from the Huanzala mine, Rob Lavinsky of *The Arkenstone* (irocks.com) has an April 5 “Mixed Minerals From Peru” update which features several outstanding cabinet-size groups of brilliantly lustrous **pyrite** crystals, including the one shown below, with big, razor-sharp octahedral crystals, priced at \$3,500.



Pyrite, 7.8 cm, from the Huanzala mine, Huallanca District, Bolognesi Province, Ancash Department, Peru. The Arkenstone specimen and photo.

What's more, the Peru update on the *Arkenstone* website has numerous excellent specimens of Peruvian rhodochrosite, rhodonite, tetrahedrite and green fluorite, as well as oddities such as this surprising (ugly, but surprising) cabinet-size specimen of **native arsenic** from the Quiruvilca mine, Santiago de Chuco Province, La Libertad Department. For the better instruction of those who think arsenic specimens of collector interest hail only from old European localities, this one came, according to Rob, from a "single and highly unusual find" in the Quiruvilca mine in the summer of 2013.



Arsenic, 10.1 cm, from the Quiruvilca mine, Santiago de Chuco Province, La Libertad Department, Peru. The Arkenstone specimen and photo.

Dan Weinrich of *Weinrich Minerals Inc.* (weinrichmineralsinc.com) gets noticed often in these reports, since his updates (and Special Sales!) come weekly, and since he maintains a healthy turnover of good to exceptional worldwide specimens. This time the star species is **fluorite**, in a goodly selection of varicolored, large-miniature to very-large-cabinet-size clusters of cubic crystals from the (now just about exhausted) fluorite-mining region of southernmost Illinois. Of the two striking specimens shown here, the first is a 9-cm crystal group from the Denton mine, interestingly almost black from a thin surface layer of hydrocarbons:



Fluorite, 9 cm, from the Denton mine, Harris Creek District, Hardin County, Illinois. Weinrich Minerals Inc. specimen and photo.

But if you require something more colorful and withal very *large*, how about this spectacular piece from somewhere unspecified in the Cave-in-Rock District, consisting of a sharp architecture of transparent cubes color-zoned in pale to deep purple?



Fluorite, 15 cm, from the Cave-in-Rock District, Hardin County, Illinois. Weinrich Minerals Inc. specimen and photo.

That big purple Cave-in-Rock fluorite, priced at \$9,500, is offered also on Dan’s “Our Finest” section, together with many other things which are a treat, a joy, and (for the less pecunious) a frustration to come upon in that section’s five generous pages. Just to inspire you to go there, here is one of Dan’s “finest” which spoke in a loud voice to me this time: an enormous, myriadly branching “tree” of **silver** from the Endeavor mine (also called the Elura mine), New South Wales, Australia (“call for price”).



**Silver, 12.5 cm, from the Endeavor (Elura) mine, Cobar, New South Wales, Australia.
Weinrich Minerals Inc. specimen and photo.**

Expert, hungry collecting teams go out regularly from Poland to dig for specimens in remote places—mostly in Africa—which then are offered online and at shows by *Spirifer Minerals*, and on that dealership’s website (spiriferminerals.com), little essays on the localities, with plenty of photos, appear regularly as well. These conscientious, helpful pieces are written by Tomasz (“Tomek”) Praszquier, the head man of Spirifer. And so, in early April we find on the Spirifer website a mini-what’s-new report called “Yellow zircons and pyrochlores from Morocco”—check it out, particularly if you find the notion of *yellow* crystals of zircon intriguing. The collecting site now being developed by Spirifer lies about 30 km from the town of Imilchil, in the High Atlas Mountains of central Morocco; specifically, it lies in the Tizi-n-Inouzane Pass, where, Tomek writes, “a small pocket with aegirines on microclines with associated magnetites and andradites was [very recently] discovered.” Resting on fairly sharp macrocrystals of these common species are brown octahedral microcrystals of **fluorcalciopyrochlore** and (here comes the intriguing part) very sharp, lustrous crystals of lemon-yellow **zircon** which reach 8 mm. The zircon crystals are short-prismatic with pyramidal faces, and they are scattered, well individualized, along the sides of black aegirine crystals with which they color-contrast pleasantly. This brand-new material has yet to hit the international mineral scene, but even a quick look at the photo shown here from the little online report on the Spirifer site might inspire us to keep a lookout. At least I know that that is what *I* will do at the upcoming Ste.-Marie-aux-Mines Show, and thereafter in Denver and Munich, and, of course, on the *Spirifer Minerals* website in coming months.



Zircon crystals on aegirine, 2 cm field of view, from Tizi-n-Inouzane Pass near Imilchil, High Atlas Mountains, Midelt, Morocco. Spirifer Minerals specimen and photo.

I have accustomed myself to ending these online reports with photos of single, singular, extraordinary mineral specimens, not so much to urge you to visit the relevant websites and buy them (most people probably can't afford them) but more as aesthetic visions— sensitive tuning forks for your understanding of what makes a specimen truly, visibly, great. This time, for the purpose, I'm consulting the website of Daniel Trinchillo's *Mardani Fine Minerals* (MardaniFineMinerals.com), where photos of 96 miscellaneous "high-end" specimens may be ogled.



**Vesuvianite, 7 cm, from Bellecombe, Aosta Valley, Italy.
Mardani Fine Minerals specimen and photo.**

Daniel of course has long been known as the proprietor of *Fine Minerals International*, one of the "highest" of high-end mineral dealerships for the wealthy and knowledgeable; however, his Mardani venture is an outreach of sorts, meant (as the website puts it) "to make exceptional minerals available outside of the closed, private market." Thus in November 2014, Daniel and his wife Marisa Chung opened the Mardani gallery at 766 Madison Avenue, New York, in order "to create a spectacular and inviting retail space where they could introduce the extraordinary beauty of the finest mineral

specimens of the world to everyone, from the most seasoned collector to the absolute novice.” And since then, a second Mardani showroom has opened at 186 Gore Creek Drive in Vail, Colorado, and if you can’t visit these classy-yet-egalitarian precincts in person you can always visit their websites, of course.

So I conclude this report by flashing at you three of the specimens shown on the New York showroom’s website. For each of them—and for each of the 96 specimens highlighted on the “Minerals” page, for that matter—there is a short paragraph which explains things about the mineral species, its major occurrences, specimen styles, in some cases practical uses, etc., but mostly these explications are for “the absolute novice” or anyway for the “investment” or “decorator” collector. *Your* instructions, rather, are just to look and go Wow, or *yesss*, or whatever inarticulation wells up in your mineral-cultured sensorium:



Stibnite, 24 cm, from the Wuning mine, Qingjiang, Jiangxi Province, China. Mardani Fine Minerals specimen and photo.



Wulfenite, 5.1 cm, from the San Francisco mine, Cerro Prieto, Cucurpe, Sonora, Mexico. Mardani Fine Minerals specimen and photo.

Have a wonderful springtime, all...

Tom Moore