



Acanthite, 2.2 cm, from the Porco mine, Agua de Castilla, Antonio Quijano Province, Potosí Department, Bolivia. Burillo Minerales specimen and photo.

Currently on the South America page of the website of *Luis Burillo Minerales* (luisburillominerales.com), Luis offers three very nice, loose, thumbnail-size specimens of **acanthite** which you might well think are from Fresnillo or Guanajuato or even Freiberg. But no, more surprisingly, they are from the Porco mine group, Agua de Castilla, Antonio Quijano Province, Potosí Department, Bolivia. Inaugurated in 1549 by the *conquistador* Francisco Pizarro himself, Porco is the oldest silver mine in Bolivia and is still producing ore today, but its specimens are very rarely seen on the market, as they are supplied by miners who must smuggle them out at risk of their jobs. In 2010 a dozen or so fine thumbnails of Porco *stephanite* were offered by *Mineral Classics* (for which dealership Bolivian minerals are a specialty—see later in this report), and Porco wire silvers and pyrargyrites may very occasionally be spotted around the market: indeed, Luis offers a single wire silver thumbnail from Porco, together with the acanthites. Well, these acanthites are “locality” items, all right, but they are first-rate small specimens of the silver sulfide, with skeletal, mildly distorted, brightly metallic black crystals in thorny groups without matrix, all priced around 150 Euros (\approx \$165).



Fluorapatite and Siderite on quartz, 7.5 cm, from the Kami mine, Ayopaya Province, Cochabamba Department, Bolivia. Burillo Minerales specimen and photo.

On the “New Products” page of the same Burillo website there is a single specimen of **pink fluorapatite and siderite on quartz**: a 7.5-cm beauty with tabular, gemmy, pale pink fluorapatite crystals to more than 2 cm, plus a yellow-brown siderite rhomb or two, all nestled among bristling colorless crystals of quartz, from the Kami mine, Ayopaya Province, Cochabamba, Bolivia—priced at 1,450 Euros (\approx \$1,595). Now if you happened to catch my report on the 2022 Tucson Show (in May-June 2022), you might recall that during that show I tried unsuccessfully to chase down a rumored hoard of such specimens, learning at last from Luis Burillo’s assistant that the hoard *had been there* but had been sent back to Spain before I could see it. Right now, there’s only the singleton specimen shown on the website, but *I know there are more* (a few shows ago the *Collector’s Edge* dealership had some too), and furthermore I know that sometimes black ferberite crystals share space on the quartz with the pink fluorapatite and latte-colored siderite. Keep an eye out, and no doubt you’ll see further examples of this lovely material.

Around 2015, earthy brown slabs of limonite matrix to large-cabinet size, bearing crystals of transparent blue-green vivianite to 12 cm or more, began to appear on the market from a locality given as the Cabezo do Cochorro “mine,” São Gabriel da Cachoeira, Amazonas, Brazil. This place near the border between northernmost Brazil and southernmost Venezuela apparently is not a “mine” but a complex of digging sites—it is now being called a “claim”—along the Cauaburi River in Pico da Neblina National Park, Amazonas State. Phosphatic nodules in the “bog iron” harbor crystals, not just of vivianite but also of **ludlamite**—although it seems that the major ludlamite finds have been made only within the last year or so. Fine matrix specimens of ludlamite from Cabezo do Cochorro, miniature to large-cabinet size, are now being offered on the websites of Ibrahim Jameel’s *Khyber Minerals* (khyberminerals.com) and Mike Keim’s *Marin Mineral Company* (marinmineral.com), and the best of them place the locality surely among the world’s best for ludlamite. According to Ibrahim, a “massive find,” mainly of vivianite, occurred in 2021, and the specimens “went from Brazil to China in a single multi-ton lot,” then were frozen in place temporarily by China’s Covid lockdown. But now the May 13 update of *Marin Mineral Company* has ten specimens, from 1.6 to 9 cm, showing blocky, lustrous, partially gemmy green ludlamite crystals to 1 cm on slightly curved plates (these were “nodules,” remember) of earthy brown limonite. *Khyber Minerals* for its part has a June 9 update with 15 specimens, 5 to 20 cm, with equally fine, sharp ludlamite crystals blanketing the brown matrix. And on the *Khyber* site you will find just one specimen with crystals of ludlamite *and* vivianite on an 11.5-cm matrix. Some of the specimens on both sites are marked “sold” or “reserved,” but many fine ones are still available for low-three-figure to medium-four-figure prices.



Ludlamite, 6 cm, from the Cabeça do Cachorro claim, São Gabriel da Cachoeira, Amazonas, Brazil. Marin Mineral Company specimen and photo.

In these reports I have pointed several times to Mike Keim’s *Marin Mineral Company* website, and properly so, as Mike very frequently posts updates with alluring photos of highly desirable things. Looking through the last, say, 13 updates will take you back only as far as April of this year, and the eclectic selections therein contain many offerings of both new and of older specimens, mostly (though not exclusively) one-of-a-kind. The update of May 26 offers a wonderful 2.5-cm specimen of the exotic, elusive gold telluride **calaverite** from the now defunct gold mining camp at Cripple Creek, Colorado (see the article on the locality in the March-April 2005 *Mineralogical Record*), with solid sheets of long-prismatic, bronzish-gold calaverite crystals covering major parts of the white quartz matrix. The specimen is marked “sold” but its price, \$950, is still displayed: most serious, duly appreciative collectors, I think, would gladly pay such a price for this rare, unique-looking thumbnail.



Calaverite, 2.5 cm, from Cripple Creek, Teller County, Colorado. Marin Mineral Company specimen and photo.

Also, the June 3 *Marin Mineral Company* update has several excellent thumbnails and miniatures of rose-pink **spinel** in sharp octahedral crystals to 3 cm on white calcite matrix, from Mahenge, Morogoro Region, Tanzania; the smashing example shown here costs \$1,250.



Spinel, 4 cm, from Mahenge, Morogoro Region, Tanzania. Marin Mineral Company specimen and photo.

Then there's the four-page June 24 *Marin Mineral Company* update with specimens from the Tim Sherburn collection of Irish minerals (calcite, quartz, zeolites, langite, Mogul mine sulfides, etc.). In general, these items are, of course, humbler-looking than the spinels or the calaverite, but when have you seen such a fine large **chabazite** specimen as this 10.5-cm one from Craig's quarry, Ballymena, County Antrim, Ireland, priced at a humble \$60 (discounted from an original \$120)?



Chabazite, 10.5 cm, from Craig's quarry, Ballymena, County Antrim, Ireland. Marin Mineral Company specimen and photo.

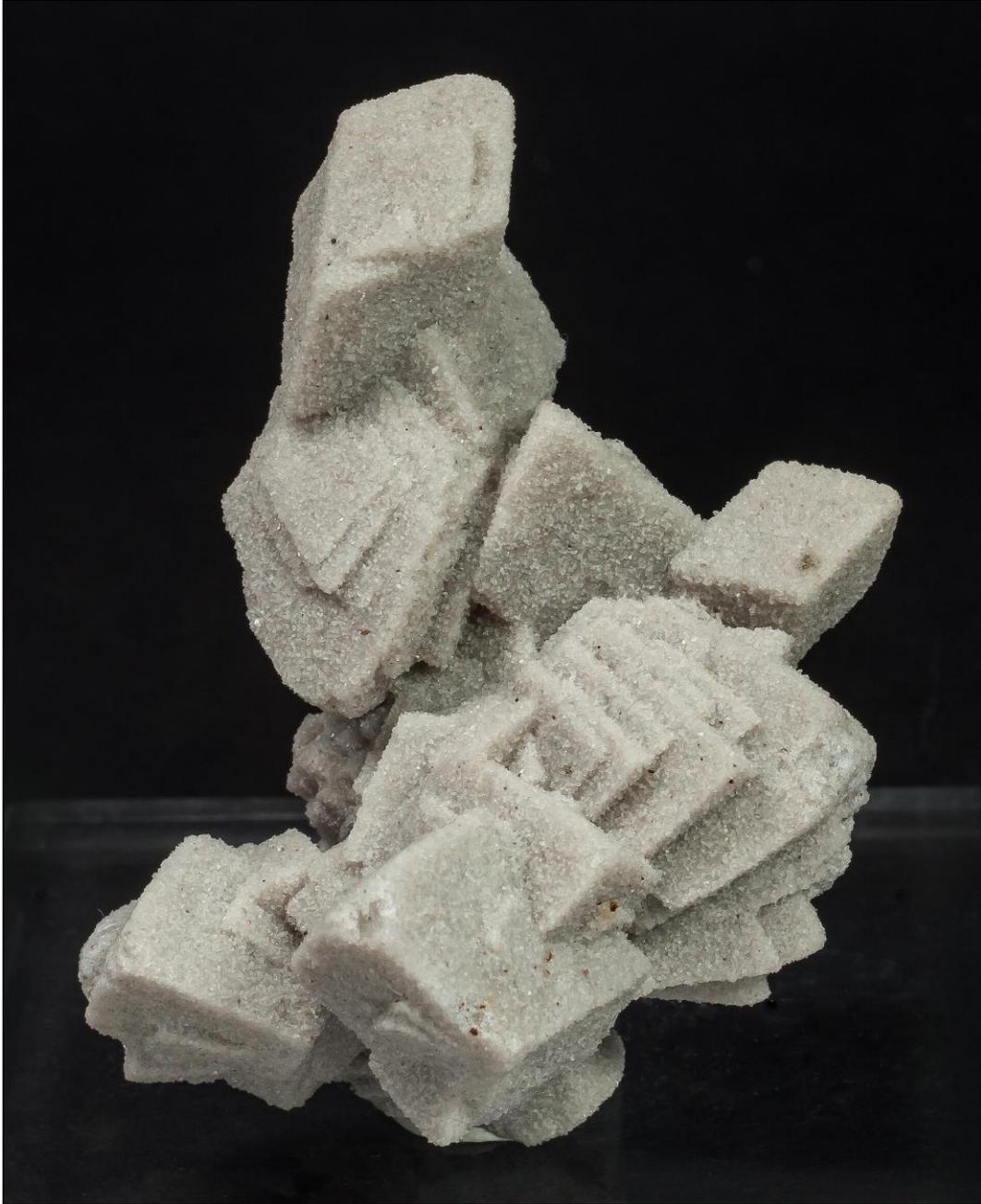
Jordi Fabre of *Fabre Minerals*, in his May 26 “Pre-Shows June 2022 update,” continues his recent practice of selling off individual specimens from his personal collection, and many are the prizes here, e.g. this miniature **azurite** from the famous Touissit mine, Oujda, Morocco, for which Jordi asks \$295. The specimen is marked “reserved,” but at least it should give you a sense of the high level of Jordi’s taste, as of his generosity when it comes to resales of his personal “babies” (as Rock Currier would have called them).



Azurite, 5.3 cm, Touissit mine, Oujda, Morocco. Jordi Fabre specimen and photo.

Also seen on Jordi’s “Pre-Shows” update are four fine miniatures of **calcite with sand inclusions** from Fontainebleau, Seine-et-Marne, Île-de-France, France. This locality, discovered in 1774 and cherished by Louis XV, who was given a group of specimens from there, is a small cave exposed in a sandstone quarry about 60 km southeast of

Paris—see the article in the July-August 2014 *Mineralogical Record*. Of course, specimens of “sand calcite” from Fontainebleau are very rarely available on the market; Jordi’s are excellent sculptural groups of sharp cement-gray rhombohedrons in subparallel or whimsical-looking stacked formations, priced from \$95 to \$264.



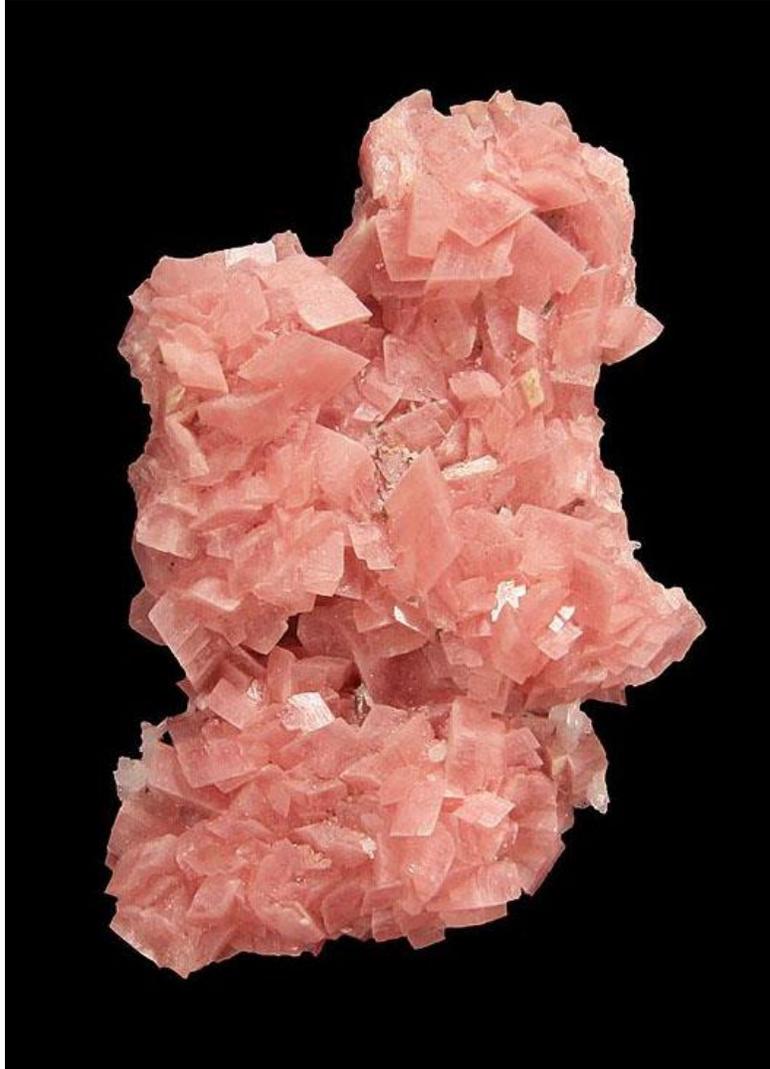
**“Sand” Calcite, 5.8 cm, from Fontainebleau, Seine-et-Marne, Ile-de-France, France.
Fabre Minerals specimen and photo.**

Mineral Classics (minclassics.com) is a Colorado-based family business run nowadays by the wife and sons of the late mineral dealer Richard Kosnar: Brian Kosnar handles the minerals, Brett Kosnar handles the cut gems and jewelry, and Tresa Kosnar and her second husband, Ryce Foster, help out in numberless ways. The extensive, recently redesigned *Mineral Classics* website now has 41 scroll-down pages, each with 20 or so individually clickable items (with lengthy, effusive texts); about half of these are gemstone and jewelry items, the other half are mineral specimens, mostly of very high quality. There are abundant, individually explicated examples of spinel and petalite from Myanmar (Burma), bertrandite from Brazil, copper from Australia, vivianite and “the three vauxites” from Bolivia, old European classics, and much else besides, but leading off the array on the site right now are 23 classic specimens from the Kosnars’ original home state: clusters of **prehnite epimorphs after anhydrite** from the Prospect Park quarry, Passaic County, New Jersey. It’s not specified whether or not this specimen lot is an old one, but probably it is, as there has been little to no recent collecting in the basalt of this famous old zeolite-bearing quarry. The brightly wet-looking, apple-green clusters of finger-like prehnite epimorphs are of miniature to small-cabinet sizes, and they are priced from \$75 to \$650; the piece shown here costs \$450.



Prehnite, 8.3 cm, from the Prospect Park quarry, Passaic County, New Jersey. Mineral Classics specimen and photo.

Additionally, the Kosnars emphasize specimens from their present home state—Colorado—and from the country whose minerals they have specialized in for quite a long time now—Bolivia. Currently, for example, you may buy for \$700 this beautiful 4.7-cm cluster of sharp rhombohedral crystals of medium-pink **rhodochrosite** from the Zanett tunnel—a specimen-mining project of the early 1980s, driven to intersect the orebody of the defunct Grizzly Bear mine, Bear Creek Canyon, Ouray County, Colorado. The locality is no less defunct today than it was then, and specimens from it are highly prized by Coloradoans.



Rhodochrosite, 4.7 cm, from the Zanett tunnel, Grizzly Bear mine, Bear Creek Canyon, Ouray County, Colorado. Mineral Classics specimen and photo.

And from the San Jose mine, Oruro City, Cercado Province, Oruro Department, Bolivia, here's an exquisite small miniature which Brian Kosnar has resolved at last to release from his private collection: a rounded cluster of crystals of the very rare **ferrokësterite** ($\text{Cu}_2\text{FeSnS}_4$ —not to be confused with its much commoner dimorph, stannite) on bladed crystals of andorite with acicular zinkenite. Brian asks \$3,500 for this former baby of his—but for much less than that you can buy first-rate stannites, andorites and other San Jose mine sulfides from *Mineral Classics*. Did I mention the dozens of excellent **vivianites** from Canutillos, Potosí, Bolivia, on the website too?



Ferrokësterite with Andorite and Zinkenite, 3.7 cm, from the San Jose mine, Oruro City, Cercado Province, Oruro Department, Bolivia. Ex Brian Kosnar collection. Mineral Classics specimen and photo.

Speaking of **prehnite**, a June 16 update posted by the Spanish *Rosell Minerals* dealership (rosellminerals.com) has four pretty specimens of that species from a new occurrence at Aït Karmosse, near the town of Boulemane, Fès-Meknès, Morocco. Ranging in size from 7.3 to 9.2 cm and in price from 60 to 70 Euros (\approx \$66 to \$77), these are clustered sheaves and globular aggregates of prehnite microcrystals, highly lustrous, translucent on some thin edges and of a uniform apple-green color. Little acicular crystals of actinolite may be espied on some of the specimens.



**Prehnite, 9.2 cm, from Aït Karmosse, Boulemane, Fès-Meknès, Morocco.
Rosell Minerals specimen and photo.**

Rosell Minerals also has an interesting group (or grouplet—there are only three) of old-time specimens of the rare zeolite **harmotome**. Probably the most remarkable of the three, from an old German collection, is a 7.7-cm piece from a quarry somewhere in the Enzweiler district near Idar-Oberstein, Rheinland-Palatinate, Germany. (In centuries long past, basalt quarries around “Idar” produced nice examples of zeolites, calcite and goethite: little-known accompaniments to the colorful agates which birthed the gemological industry there.) The *Rosell Minerals* specimen shows a deep vug in basalt spilling over with lustrous, blocky white harmotome crystals; the price for this handsome antique is 110 Euros (\approx \$120).



Harmotome, 7.7 cm, from Enzweiler near Idar-Oberstein, Rhineland-Palatinate, Germany. Rosell Minerals specimen and photo.

Dan Weinrich of *Weinrich Minerals Inc.* has special-sale updates every weekend, as I've noted before, but sometimes he also has *Wednesday* special-sale updates, and on Wednesday June 22 he had an especially juicy one, with 113 “mixed” specimens at price reductions to 75% (but only, yes, on *that* Wednesday). Scattered over the two long pages of the update are seven fine small-cabinet to large-cabinet specimens of **copper** from “Luilu, Lualaba,” Democratic Republic of Congo, all being matrix-free groups of lustrous, elongated, wormily twisting copper crystals—in general very impressive examples of the native metal, all priced in the low four figures (as of the Wednesday reduction). However, there is—as I see it—an issue about the locality. Dan’s unusual-looking copper specimens are absolute ringers for some reportedly very new copper specimens which a French dealer offered at the 2021 Munich Show: the photo in that report, on page 169 of the January-February 2022 issue, shows a typical one of those specimens. But the French dealer said that his specimens had newly emerged from the “Kalukuluku mine,” which Mindat pegs as the original name of the long-lived L’Etoile du Congo (“Star of the Congo”) mine, near Lubumbashi, Haut-Katanga Province. Dan’s “Luilu,” on the other hand, is in the Kolwezi district of Lualaba Province (“Luilu” is a stream running through the district). The Kolwezi district, Lualaba, lies more than 250 km northwest of Lubumbashi, Haut-Katanga...and yet it’s hard to look at the photos of Dan’s “Luilu” specimens alongside the photo of the “Kalukuluku” specimen, and not conclude that they must have come from the very same place. Well, this is hardly the first mystification concerning localities of new specimen lots; if eventually the mystification receives clarification, I’ll let you know.



Copper, 8 cm, from Luilu, Lualaba, Democratic Republic of Congo. Weinrich Minerals Inc. specimen and photo.

While we're visiting *Weinrich Minerals Inc.* I'll remark on that website's Wednesday-special-sale bargains on stunningly beautiful **calcite** specimens from the Tonglushan mine, Daye County, Hubei Province, China. About a year ago Dan Weinrich acquired a couple *thousand* specimens of this newly discovered calcite, but they were just too new, distinctive and gorgeous to bear low prices. Now, though, the Wednesday-special-sale June 22 update has, for example, the specimen shown here, a 6-cm matrix on which a 5.5-cm calcite crystal of resplendent beauty perches lightly, with a price reduced from \$540 to \$162. You'd best get one of these things, now fairly plentiful around the market, while you can—and Dan may still be the best person to go to for that important purpose.



Calcite, 6 cm, from the Tonglushan mine, Daye County, Hubei Province, China. Weinrich Minerals Inc. specimen and photo.

Rob Lavinsky's *The Arkenstone* (irocks.com) has been posting many small updates of late; the most recent one, posted on June 22, is called "Worldwide Metallics." These 29 specimens include nine unusually fine, cabinet-size Spanish pyrites (at four-figure prices); Trepča, Kosovo bournonites in large-cabinet-size matrix examples; and, what I found most impressive, large-cabinet-size specimens of brilliant **galena** from the Madan orefield of Bulgaria—my candidate for World's Finest Contemporary Locality for this species. (See the Madan article in the November-December 1992 issue, and the article about Trepča in the July-August 2007 issue.)



Galena, 19 cm, from the Borieva mine, Madan Orefield, Smolyan Province, Bulgaria. The Arkenstone specimen; Robert Mosley photo.

Also from the June 22 posting but in the one-of-a-kind department, *The Arkenstone* offers a princely 9.7-cm specimen of **calcite enclosing copper** from the Quincy mine, Hancock, Houghton County, Michigan—an ex-George Elling specimen priced at \$17,500. The central “focal” crystal measures fully 5 cm. An *extraordinary* classic!



Calcite enclosing Copper, 9.7 cm, from the Quincy mine, Hancock, Houghton County, Michigan. Ex George Elling collection. The Arkenstone specimen; Jingnan Zhang photo.

Just two weeks earlier, on June 8, there was a “Mixed Minerals” spread from *The Arkenstone* with 135 specimens of widely varying kinds and sizes. Three of my favorites—just to show the very high quality level characterizing this update—are shown below.

The Russian **phenakite**, ex-Robert Nowakowski collection, represents an old classic occurrence, of course, but reportedly the piece was found at some time in the 1990s, i.e. it is not of pre-Bolshevik but of post-Soviet date (nice to know that things are still cooking in the old Ural gem-mining region). It shows sharp, translucent to transparent, white to colorless phenakite crystals to 5.5 cm across, on black matrix of biotite schist; the price is \$6,500.



Phenakite, 5.8 cm, from Malysheva, Sverdlovskaya Oblast, Russia. Ex Robert Nowakowski collection. The Arkenstone specimen and photo.

Rob Lavinsky’s **djurleite**, priced at \$9,000, is the best—or at least the most interestingly configured—that I have seen from the major discovery of this rare species at Bou Azzer, Morocco in 2014 and 2015. The material debuted in the U.S. when Christophe Gobin brought world-beating examples of it to the 2017 Tucson Show (see that report in May-June 2017). If you have one of these new djurleites in your collection you might be interested in what Rob writes on the website: “Multiple analyses, including [at the] Paris National Museum, have confirmed the identity as djurleite, not chalcocite as some had suspected.”



Djurleite, 4 cm, from the Aït Ahmane mine, Bou Azzer district, Ouarzazate, Morocco. The Arkenstone specimen; Jingnan Zhang photo.

Finally, the June 8 *Arkenstone* update features a loose, small-thumb-nail-size crystal of totally gemmy blue **euclase**, not from the Colombian emerald mines as we might expect but from a “truly great pocket” opened in 2010 near Ouro Preto, Minas Gerais, Brazil. This vivid little showboat would set you back \$7,500.



Euclase, 1.8 cm, from Ouro Preto, Minas Gerais, Brazil. The Arkenstone specimen; Jingnan Zhang photo.

Jim Brown of *Hummingbird Minerals* (hummingbirdminerals.com) likes cabinet-size specimens of serious aesthetic merit, and his June 7 update offers many dramatic specimens of that sort from Romania. There are some very fine stibnites from different Romanian places and excellent carbonates from the Turț mine, but most of these specimens are combinations of **quartz, calcite, dolomite and chalcopyrite** from the prolific Boldut mine, Cavnic (= “Kapnik”), Maramureș. Shown here is one of the best and perhaps the most unusual of the latter: a 13.5-cm plate of intergrown chalcopyrite crystals from which rise clumps of prismatic quartz crystals, each little quartz crystal with its own little jacket of white calcite (except for the terminations, which are uncoated). Jim asks \$4,000 for this specimen.



Chalcopyrite with calcite-coated quartz crystals, 13.5 cm, from the Boldut mine, Cavnic, Maramures, Romania. Hummingbird Minerals specimen and photo.

For reasons obscure to most of us in the West, Romanian minerals enjoyed a renaissance on the market during the last quarter or so of the 20th century. Now, even after the fall of the Wall, they are becoming quite scarce again, but among the flashiest of the post-Cold War finds are the world-class specimens of **realgar** taken in November 2005 from a big pocket opened in Shaft 5 on the 280-meter mine level at Baia Sprie (= Felsöbánya), Maramureş, with sharp, brilliant red, prismatic crystals to 7 cm on chalky white matrix. These specimens are now scarce on the market, so let us admire the big one offered by Jim Brown on the *Hummingbird* website, with fresh-looking, screaming red realgar crystals liberally disposed on a 9.5-cm matrix plate. If you buy this one, be sure to protect your \$700 investment by storing the specimen in a dark place (although, okay, you may take it out briefly to flash at appreciative guests).



Realgar, 9.5 cm, from Baia Sprie, Maramures, Romania. Hummingbird Minerals specimen and photo.

Time now for a zeolite revisitation. On a recent update of the website of *McDougall Minerals* (mcdougallminerals.com), Ray McDougall tells us about a summer 2021 find of superb specimens of **laumontite** at Stronach Brook, Nova Scotia, Canada, and he offers several of these at prices well under \$100. They are attractive, miniature-size groups of sharp, gleaming snow-white laumontite crystals without matrix or associations—about as well as one might hope to do for the unstable zeolite. Ray writes that the specimens have indeed been stabilized with a mixture including a water-soluble glue, “with no impact on the visual appearance...Nova Scotia laumontite specimens stabilized using this method have proven stable over longer than 20 years...at normal indoor humidity levels ranging from approximately 25% to 75%.” The best of the laumontites shown by Ray—and shown below—costs \$50.



Laumontite, 3.7 cm, from Stronach Brook, Annapolis County, Nova Scotia, Canada. McDougall Minerals specimen and photo.

At the Tucson Show of 2020, Dave Bunk drew crowds of thumbnail collectors by setting out a hundred or so terrific thumbnails from the collection of Rich Olsen (as Rich had decided to “graduate” to collecting miniatures). Of course, many of these specimens were sold on the spot, and more have been sold since then (including a couple now in my own collection), but many remain available. So, in the June 22 installment of his regular Wednesday update on *Dave Bunk Minerals* (davebunkminerals.com), Dave has eight pages of Olsen thumbnails, mostly but not entirely of the gem-crystal sort which Rich has always favored. Here for example is a smashing thumbnail showing a single, reproachlessly gemmy red, prismatic crystal of **elbaite** framed by pale lilac-colored rosettes of lepidolite, from the legendary jumbo pocket opened in April 1978 in the Jonas mine, Itatiaia district, Conselheiro Pena, Minas Gerais, Brazil—for \$2,500. (See the article on the Jonas mine in the May-June 2012 issue.)



Elbaite with Lepidolite, 2.9 cm, from the Jonas mine, Conselheiro Pena, Minas Gerais, Brazil. Rich Olsen collection; Dave Bunk Minerals photo.

And here for your viewing enjoyment is Rich Olsen’s stunning blue **topaz** crystal—at 3.4 cm a miniature, actually—from Murzinka, Ural Mountains, Ekaterinburg Oblast, Russia. Price: \$4,500.



Topaz, 3.4 cm, from Murzinka, Ural Mountains, Ekaterinburg Oblast, Russia. Rich Olsen collection; Dave Bunk Minerals photo.

As I’ve indicated, the Olsen collection consisted *mostly* of gem crystals like those above, but also dispersed around these eight pages of Dave’s are a few exceptional

thumbnails of non-gem species, at considerably lower prices. Perhaps you would fancy this beautifully composed, undamaged cluster of brownish crystals of **colemanite** from the White Monster mine, Furnace Creek Wash near Ryan, Death Valley, California—for \$450. Anyway, whatever your taste or budget, you will have fun, and learn much, by scrolling through this “Olsen” update of Dave’s.



Colemanite, 2.4 cm, from the White Monster mine, Furnace Creek Wash near Ryan, Death Valley, Inyo County, California. Rich Olsen collection; Dave Bunk Minerals photo.

As I write this on the last day of June I'm aware that the Ste-Marie-aux-Mines Show was held just this past weekend, and *I couldn't go, verdammt!* to write a show report and to savor the bucolic setting, the Alsatian beer, and all of the mineral bounty in the white tents, the *Theatre*, the *Piscine*, etc. But I was pleased to discover a flurry of very recent, Ste-Marie-minded updates on the website of Ian Bruce's *Crystal Classics*, wherein miscellaneous fine specimens such as Ian will have on hand in France are offered; four of these updates are devoted to English classics, the others to "world" specimens. So now let's *pretend* that we're seeing such specimens put out "in person" at the usual *Crystal Classics* stand along the back wall of the Theater at Ste.-Marie...and let's look at just two of the English items, both from the "New British Open Day Update" of June 11.

First, for \$6,500, here is a prime small-cabinet-size specimen of beautifully crystallized **bornite** from the centuries-old Carn Brae mine in Cornwall:



Bornite, 7.5 cm, from the Carn Brae mine, Illogan, Redruth, Cornwall, England. Crystal Classics specimen and photo.

And finally, a bit of more recent (and prettier) British impressiveness: a cluster of fluorite crystals, *not* from the Diana Maria mine in the ongoing *Crystal Classics* mining project but from the Greenlaws mine, where the best of the fluorite tends to be purple, not green, this one priced at \$400.



Fluorite, 11 cm, from the Greenlaws mine, Weardale, Durham, England. Crystal Classics specimen and photo.

In conclusion I will remind you that a large roomful of old-classic wonders like these awaits the shopper in the Tucson Fine Mineral Gallery on St. Marys Road in Tucson. For a description of the Gallery, see my report on the 2022 Tucson Show in the May-June 2022 issue of our magazine.

And wherever you happen to be, and whether or not you are spending a lot of time gawking at minerals on your computer, **have a good rest of the summer, and happy Fourth of July!**