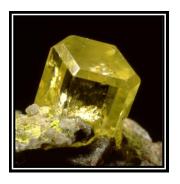
${\cal W}$ hat's New in the Mineral World?



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"Have you recovered from The Show yet?" In Tucson here, that question heralds the springtime— yes, recovery times from the Tucson Show can be slow, but March marches on, and then April holds forth, and finally those new specimens from the Show get cataloged, bank accounts get replenished, and outdoor thermometers get suspiciously watched for first feints and stabs towards the Big Heat to come. Nevertheless it's easy for us Tucsonans, as indeed for everyone, to forgot sidereal rhythms and just sit down cozily at our PCs to take time—a few minutes, an hour, an afternoon—to check out What's New on the Web. Assuming that you, wherever you are, are game for that sort of diversion, allow me to help you for the 46th time in this space:

On The Web

Recent postings on the website of *The Arkenstone* (irocks.com) offer a diverse bounty for browsers, with one page for a new find, one section for excellent pieces from Tsumeb, and a section with goodies old and new from the former Herb Obodda collection.



Brucite, 6 cm, from the Killa Saifullah district, Balochistan, Pakistan. *The Arkenstone* specimen and photo.

First, a posting from February 15 offers 25 bright yellow brucite specimens from a group of little mines and prospects in the Killa Saifullah District, Balochistan Province, Pakistan. I have at least alluded to this new occurrence in two earlier print reports from the Munich Show, and again in the print report on the 2017 Tucson Show (in the upcoming May-June 2017 issue), but the specimens that Rob Lavinsky has posted demand your attention now, since it's clear that this is the world's finest—or anyway its most colorful—brucite, quite unlike the brucite of yore from the Tilly Foster mine in New York or Wood's Chrome mine in Pennsylvania. In that the new Pakistani brucite forms lustrous reniform agglomerations on matrix, it somewhat suggests material found in 2005 in the N'Chwaning III mine in South Africa, but N'Chwaning brucite is graywhite to pale bluish green whereas that from Pakistan comes in shades ranging from pale gravish yellow to dramatic lemon-yellow. Rob writes on the site that the "top yellow" color is present in only about one specimen out of ten, and the "intense saturated lemon color" only in one in 500. One of the specimens on the site is an umbrella-shaped, lemony thumbnail and several are in the small-cabinet range, but most are miniatures; these are priced all over three-figure territory.

We are not yet finished with the website of *The Arkenstone*, for March 13 saw the posting there of a very extensive "Tsumeb gallery," prepared by Rob's helper Jeff Starr. In all there are 1,865 Tsumeb specimens here, most of them at or near top-quality level, and in shown in gorgeous photos. There are, of course, example after example of the usual Tsumeb suspects (calcite, smithsonite, dioptase, cerussite, anglesite, willemite...), but additionally there are fine mimetite specimens from the 1971 "gem pocket," several of the best tennantite specimens I have ever seen, abundant medium-rarities such as tsumcorite, ludlockite and bayldonite, and, in short, enough Tsumeb desiderata to keep you gawking your way through a long afternoon. Most of the specimens on the later pages are already marked "sold," but I show you here two very exceptional thumbnails, an olivenite/gartrellite and one of the finest extant examples of the absurdly rare iron arsenate schneiderhöhnite.



Olivenite with gartrellite, 2.9 cm, from Tsumeb, Namibia. *The Arkenstone* specimen and photo.



Schneiderhöhnite, 2.3 cm, from Tsumeb, Namibia. *The Arkenstone* specimen and photo.

Then there is Rob's gallery of specimens from the former Herb Obodda collection, posted on March 19, with offerings which are representative of two very different Obodda specialties: (1) "contemporary" mineral occurrences in Pakistan and Afghanistan, with many specimens gathered during Herb's travels to those parts, and (2) European, especially German, classics. Exemplifying the former specialty is this smashing small-thumbnail-size **väyrynenite** from a (typically) vague locality in Gilgit-Baltistan, Pakistan:



Väyrynenite, 1.5 cm, from the Shengus area, Skardu Road, Gilgit-Baltistan, Pakistan. *The Arkenstone* specimen and photo.

And in the Old European Classic department we have this matrix specimen of **calomel** from the ancient mercury mines at Moschellandsberg in the Rheinland-Palatinate, west-central Germany. Cinnabar, native mercury, and of course the Ag/Hg alloy species moschellandsbergite came once upon a time from these little mines, but specimens of well crystallized calomel from Moschellandsberg are even rarer than those of the other mercury minerals, and are among the world's best for the species:



Calomel, 4.8 cm, from Moschellandsberg, Rheinland-Palatinate, Germany. *The Arkenstone* specimen and photo.

Speaking of Old European Classics popping up coyly on the current scene, I wrote from the 2016 Munich Show (the report is in January-February 2017) concerning the small but fine **cerussite** specimens from the old Monteponi mine, Sardinia, Italy, which Tomek Praszkier of *Spirifer Minerals* brought to that show (about this classic locality, see the article by Pagano and Wilson in November-December 2014). Surprisingly it appears that Tomek didn't sell all of his Monteponi cerussites in Munich, for five are now up for sale on his site (spiriferminerals.com). The glassy white, partially translucent, sharp, twinned cerussite crystals, individually to about 3.5 cm, either join in floater groups or perch singly on—barely touching on—bits of dark brown gossany matrix. Specimen sizes range between 2.2 and 3.9 cm, and prices from \$50 to \$180.



Cerussite, 3 cm, from Monteponi, Sardinia, Italy. Spirifer Minerals specimen and photo.

Joan Rosell of the Spanish dealership *Rosell Minerals* (rosellminerals.com) has a February update with good miscellaneous worldwide items—but go to the locality menu on the left side of the home page, click on Spain, and you'll find surprising specimens

from a few recent Spanish occurrences. For example there are three very pretty specimens of orange **smithsonite** from a find in April 2014 in the San José quarry, Sierra de Cartagena-La Unión, Portman, La Unión, Murcia. These are sparkling mammillary aggregates of orange-brown microcrystals of smithsonite filling vugs in matrix:



Smithsonite, 5 cm, from the San José quarry, Portman, La Unión, Murcia, Spain. *Rosell Minerals* specimen and photo.

Also on the *Rosell Minerals* site there's this odd one, not only in the Spain section but also right out there in the main February update. A large specimen of highly lustrous black, botryoidal **hematite** of the "kidney ore" type comes *not* from Cumbria, England or from Morocco but from finds in the 1980s in an old, presumably unnamed mine on the property of the Piquín farmhouse in Córdoba Province:

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Hematite, 9.8 cm, from the Piquín farmhouse property, Cordobá, Spain. *Rosell Minerals* specimen and photo.

Last time, I had good things to say about the new website—created in 2016—of *Collection Arkane* (collectionarkane.com), headquartered in the village of Mont St.-Hilaire, Quebec. With *that* mailing address it's hardly surprising that the dealership has about 75 splendid pieces from the St.-Hilaire quarries, newly posted together with other Canadian and some worldwide things. There are—among the standard St.-Hilaire species—first-rate analcime, serandite, siderite, aegirine, natrolite and rhodochrosite, but *Collection Arkane*'s large new specimens of **leifite** and **elpidite** are especially impressive. The white, rounded clusters of radiating, short-prismatic crystals of leifite from St.-Hilaire are priced much higher than almost anything else (save the most extreme rarities) from the locality: the 8.8-cm specimen shown here costs \$900. But the best elpidite specimen now on the site, exactly the same size as the leifite, costs only \$225, and it presents extremely well, with satiny gray-green, stalk-like crystals making for crossing fans that rise from like-colored matrix.



Leifite, 8.8 cm, from St.-Hilaire, Quebec, Canada. *Collection Arkane* specimen and photo.



Elpidite, 8.8 cm, from St.-Hilaire, Quebec, Canada. *Collection Arkane* specimen and photo.

Another Canadian dealership, *Quebul Fine Minerals* (quebulfineminerals.com), updates its pages almost every day, and these pages are characterized by excellent photos of mostly small (TN to miniature), mostly contemporary, mostly "aesthetic" specimens from every which place—although here again there's a certain emphasis on Canada. This is the site to go to for beautiful little things from the Jeffrey mine, Asbestos, Quebec: the enormous asbestos mine closed for good at the outset of this millennium, but long before that it had become famous for its world-class prehnite, pectolite, diopside, vesuvianite and gemmy orange grossular specimens. Examples of all of these are getting much rarer and more expensive than they once were, but *Quebul* can sell you lovely thumbnails for prices under \$200, as for both specimens shown below. The green-purple color zoning on **vesuvianite** crystals from the Jeffrey quarry is a beautiful thing to behold, and on the **grossular** specimen shown here, for its part, there are uncommon associations of bright green diopside and clinochlore.



Vesuvianite, 2.7 cm, from the Jeffrey mine, Asbestos, Quebec, Canada. *Quebul Fine Minerals* specimen and photo.



Grossular with diopside and clinochlore, 2.6 cm, from the Jeffrey mine, Asbestos, Quebec, Canada. *Quebul Fine Minerals* specimen and photo.

One of the major new mineral occurrences whose very best known specimens debuted at the 2017 Tucson Show features intergrown djurleite and chalcocite from the Aït Ahmane mine, Bou Azzer district, Tazenakht, Ouarzazate Province, Morocco. I repeat, the very very best of these specimens came to Tucson, whence they were brought by Christophe Gobin (of *Dubai Gems*), and in our May-June 2017 issue you'll find text and a photo to back up that very very best claim. Right now, however, there are some fine specimens of the same material offered by Jordi Fabre of Fabre Minerals (fabreminerals.com), these miniature-size pieces showing very sharp, slightly edgehoppered, pseudohexagonal, thin-tabular crystals to 2.4 cm vertically bunched on matrix. The copper sulfide is, of course, metallic black, and not highly lustrous, but what's remarkable is the size and the excellent form of the crystals, unprecedented for djurleite and exceptional even for the much commoner chalcocite. Jordi has posted just three specimens, and Christophe didn't have many more than that, but stay tuned, for actually this material has been trickling out from Bou Azzer for two or three years now, sometimes labelled djurleite and sometimes chalcocite (according to Christophe, repeated testing has shown that djurleite predominates). The Aït Ahmane mine is currently active, so more specimens may well be forthcoming...you can start doing your homework on what they look like by visiting Jordi's site.



Djurleite/Chalcocite, 5.6 cm, from the Aït Ahmane mine, Bou Azzer district, Ouarzazate, Morocco. *Fabre Minerals* specimen and photo.

In his March 30 "Post-Tucson" update, Jordi Fabre also has four miniatures of calcite of a highly distinctive type, said by him to hail from "Lishui Prefecture, Zhejiang Province," China. Calcite from this occurrence has been handled for years now by numerous dealers, Western and Chinese alike, and it is distinctive, and can be very attractive. I'll save myself composition-time by quoting Jordi's description: "Thick tabular calcite crystals with clear and very bright prismatic faces and a greatly flattened terminal rhombohedron, transparent in the interior and whitish and translucent on the borders"—to which I'll add that the transparent crystals all have mossy brown inclusions, probably of iron oxides. So this calcite is widely familiar by now, but its labels have always been at least as non-specific as Jordi's. What is the precise locality? No one seems to know, or seems willing to say. Neither the 2006 book on Chinese minerals by Guanghua Liu nor the 2008 book on the same subject by Berthold Ottens mentions a Lishui, Zhejiang calcite occurrence, or shows an apposite photo; in fact, neither book mentions any occurrence of crystallized minerals in Zhejiang Province. Mindat mentions calcite from the Babaoshan Au-Ag deposit in Longquan County, Lishui, Zhejiang, but says its quality is only "average," and there are no photos...somehow I don't think the Babaoshan mine is the place. So I show here one of the best of Jordi's four miniatures, and hope to hear someday from someone who knows from what mine or prospect such specimens come (and whether they're still coming— Jordi's are all I have seen for a while).



Calcite, 6.7 cm, from Lishui Prefecture, Zhejiang Province, China. *Fabre Minerals* specimen and photo.

In the mid-2000s, beautiful Chinese wulfenite specimens suddenly came in quantity to the West, and soon there came also (in the January-February 2007 issue of the Mineralogical Record) an article by Wendell Wilson and Marcus Origlieri which gave some background, the authors noting that "The location...has been attested to by several sources, but the exact mine name given here has been deduced" from word-of-mouth details that some of those sources provided: that exact attribution is to the Jianshan mine, in the Kuruktag Mountains in the northern part of Xinjiang Uygur Autonomous Region, in far-northwestern China. Around 2006-2007 the wulfenite specimens were plentiful in the West, and then came a lull, but beginning around 2014 they became plentiful once again, as they still are today—Dan and Diana Weinrich had some spectacular pieces at the 2017 Tucson Show, and see my online report dated April 21, 2015. I mention all this in order to get to the good news that a Chinese dealership, TC-Mineral-China, has returned to the web after several years' absence, and if you go to its special "wulfenites.com" site you'll find hundreds and hundreds of fine-looking Kuruktag Mountains wulfenite specimens in a wide range of sizes, with crystals of several colors and habits. In color the crystals range from opaque butterscotch-orange, though medium-orange and transparent, through fiery red, and in habit they range from very thin, transparent "windowpanes" through thicker tabular forms through nearly equant ones showing basal and pyramid faces in almost equal development. More good news is that the specimens on "wulfenites.com" are inexpensive by Western standards: the thumbnail pictured here costs just \$68, and the matrix miniature costs just \$132. What's puzzling (to me anyway) is that Mr. Weigang Chen, the website's proprietor, attributes all of these wulfenites to a locality called the "Stone Crack mine" in the Kuruktag Mountains, and indeed this term is seen on labels of some of the wulfenite specimens which have made it to the U.S. as well. Does "Jianshan" mean something like "stone crack?" The books by Liu and Ottens can't help, as they came out earlier than the wulfenite did. In any event the specimens which fill page after page on "wulfenites.com" are, at their best, the peers of nearly all of the best classic wulfenites from Arizona, Mexico, Tsumeb or the Congo. Check out three of them here:



Wulfenite, 2.8 cm, from the Stone Crack mine, Kuruktag Mountains, Xinjiang Uighur Autonomous Region, China. *TC-Mineral-China* specimen and photo.



Wulfenite, 5 cm, from the Stone Crack mine, Kuruktag Mountains, Xinjiang Uighur Autonomous Region, China. *TC-Mineral-China* specimen and photo.



Wulfenite, 5.7 cm, from the Stone Crack mine, Kuruktag Mountains, Xinjiang Uighur Autonomous Region, China. *TC-Mineral-China* specimen and photo.

It always feels good to pass on word of *new* websites in these reports. You are hereby notified that a new site called *Minerals Bulgaria* (mineralsbulgaria.com) has come to cyberland, and it offers many pages of good specimens from the mines of the Madan orefield, in the Rhodope Mountains of southern Bulgaria. What's more, nearly all of these specimens of **pyrite**, **galena**, **sphalerite**, **quartz**, **Mn-rich calcite**, etc. bear what you could call bargain prices, e.g. the handsome pyrite miniature shown here costs just 15 British pounds (the dealership is based in London), which is to say about \$18. If you are a haunter of the major shows to which two or three Bulgarian dealers come regularly, you might find this online dealership's offerings rather similar; but, of course, the Madan mineral suite is limited in the first place. The pyrite, galena, and especially the "cleiophane" sphalerite often reach world-class quality, and specimens of these common sulfides from Madan, even when not world-class, are typically lustrous and tend towards drama. You might want to keep visiting this site as it matures, especially if you come seldom or never to big international shows.



Pyrite, 3.7 cm, from the Krushev Dol mine, Madan ore field, Rhodope Mountains, Smolyan Oblast, Bulgaria. *Minerals Bulgaria* specimen and photo.

Jack Crowley's *The Crystal Mine* (crystal-mine.com) has four pages of "new arrivals" dated at various times in February, and among the most interesting are some largeminiature to small-cabinet-size specimens of **quartz** from a locality called "Hot Springs blowout, near Adam peak, east side Osgood Mountains, Potosi district, Humboldt County, Nevada." Ever heard of well crystallized quartz from a "hot spring blowout?" Well, Jack Crowley writes: "These quartz crystals come from an old, and long since dormant, hot spring occurrence on the east side of Adam peak. Originally it was open to the air, and specimens could be collected from down in the throat of the dried-up spring. Many crystals were sand-blasted on one side, where sand-laden water surged against the crystals and rounded them off over time. The occurrence is now filled in and any remaining crystals are deeply buried." Jack's examples were collected about 20 years ago; they show sharp, fat, partially translucent crystals of milky quartz, some with faint smoky zones, to more than 7 cm, as floater groups and isolated on quartz druses on granite matrix. Jack, you may recall, was coauthor of the *Mineralogical Record*'s Peru issue back in 1997.



Quartz, 5 cm, from the Hot Springs blowout near Adam Peak, Potosi district, Humboldt County, Nevada. *The Crystal-Mine* specimen and photo.

The March-April 2013 issue of the *Mineralogical Record* contains an article by Robert Noble on wittichenite from the Cattle Grid pit in the Mount Gunson mine, South Australia, and the cover of that issue shows the best known specimen of the very rare Cu-Bi sulfide, a loose crystal, measuring 3.6 cm, which is so rich in lustrous faces that it has been nicknamed "the disco ball." The article recounts that a single 1981 find in the Mount Gunson mine gave up so very few fine, sharp wittichenite crystals (mistaken at first for chalcocite) that the world's institutional and private collections now hold only about 30 of them which measure 2 cm or more. I did see a few stray wittichenite crystals for sale at shows in 2014 and 2015, but still was surprised to find four of them being offered online recently by Wayne and Dona Leicht of Kristalle (kristalle.com). And that was a few days ago...now, on April 8, it seems, just two of the specimens remain unsold (or at least are still posted). One is a crystal which measures 3.5 cm—almost as large as the "disco ball"—and is priced at \$6,000; the other specimen is a 3.6-cm cluster of crystals, priced at \$21,000. The brilliant metallic black crystals are beautiful in their way, and from now on we'll probably have to wait a while to see more on the market, if we ever do. All right, so you can't afford a wittichenite specimen—but you can look at one *appreciatively*, no?



Wittichenite, 3.6 cm, from the Cattle Grid pit, Mt. Gunson mine, Pernatty Lagoon, South Australia. *Kristalle* specimen and photo.

Reliable Ray McDougall of *McDougall Minerals* (mcdougallminerals.com) has his usual helping of new specimen items on his latest update. For one, there's a selection of **gypsum ("selenite")** crystals from Willow Creek, near Nanton, Alberta, Canada: these were collected during the early 1990s from an occurrence in clay, so that the specimens are complete floaters, and virtually undamaged all around. Willow Creek "selenite" has appeared sporadically on the market before and thus has made a name for itself for the ideal "textbook" forms of the crystals and for the ghostly blue fluorescence (and green phosphorescence) of hourglass-shaped zones inside each crystal. Also the "selenite" is entirely, pristinely colorless and transparent; in short, it's hard to do better than this for crystallized gypsum. Most of Ray's several specimens are loose single crystals between 4 and 6 cm on edge, but shown here is one of his two *groups* of crystals in parallel growth (costing \$80).



Gypsum, 7.2 cm, from Willow Creek near Nanton, Alberta, Canada. *McDougall Minerals* specimen and photo.

Noteworthy, too, on the *McDougall Minerals* site are some miniatures with sharp, silvery brown "books" of **muscovite** perched on albite, from Mantena, Minas Gerais, Brazil, and four very good thumbnails of the rare Mn-Sn-Ta oxide **wodginite**, from a pegmatite occurrence somewhere in the Linópolis district, Divino das Laranjeiras, Minas Gerais:



Muscovite on albite, 5.2 cm, from Mantena, Minas Gerais, Brazil. *McDougall Minerals* specimen and photo.



Wodginite, 2.6 cm, from the Linópolis district, Divino das Laranjeiros, Minas Gerais, Brazil. *McDougall Minerals* specimen and photo.

Christos Spiromitros has a January 10 "New Year's update" of assorted good things from Laurium and from elsewhere in Greece on the ever-interesting site of *Greek Rocks* (greekrocks.com). There are, as usual, many colorful secondaries from the ancient Laurium mines, and a very desirable and distinctive thumbnail in this category is the **copper-rich adamite** from the Hilarion mine shown here. Christos writes that this specimen is from an old German collection, but lately, I'll note, the Laurium mines have produced other green and blue adamites much like this one, though few as fine.



Cu-rich adamite, 2.7 cm, from the Hilarion mine, Lautium, Attika, Greece. *Greek Rocks* specimen and photo.

Also, Christos Spiromitros offers a 12.6-cm example of something almost uniquely characteristic of the Laurium mines: a **pseudomorph of romanèchite after "selenite."** Jet-black, lustrous and oily-looking romanèchite seems to foam up all around the sharp pseudomorphous crystal, and the pseudomorph itself, once a sword-like, well terminated crystal of gypsum, is jet-black and lustrous as well. Years ago, when visiting Laurium, I saw other specimens like this in a small museum and in private collections, and elsewhere I've seen one or two since that time, and to me, anyway, these black swords in matrix of black foam bespeak the 25-centuries-old Laurium mining district as nothing else can:



Romanèchite after gypsum, 12.6 cm, from Laurium, Attika, Greece. *Greek Rocks* specimen and photo.

Jim Brown's *Hummingbird Minerals* site (hummingbirdminerals.com) is a one-man operation, and Jim conducts his business only online. I have mentioned the site once or twice before in this space, and now I'll again recommend its abundance of mostly cabinet-size "aesthetic" pieces for which Jim does not charge outrageous prices despite the stock's programmatically showy nature. No rarities or exotica here, just handsome, A-1 examples of familiar things. Below, to illustrate these observations, I show something chosen almost at random from Jim's April 4 update: a stately, cabinet-size **chalcopyrite on quartz** from the Boldut mine in Romania:



Chalcopyrite, 10.5 cm, from the Boldut mine, Cavnic, Maramures, Romania. *Hummingbird Minerals* specimen and photo.

Last in the what's-new parade comes something exceptional—as a matter of fact it is Kevin Ward's *Exceptional Minerals* (exceptionalminerals.com) site that sends it our way. In his new "Tucson Show 2017" gallery, posted on April 1, Kevin offers a loose, richly green, wholly gemmy (though somewhat rough-faced), 4.5-cm **emerald** crystal from a locality given as Kenticha, Kenticha pegmatite field, Seba Boru district, Sidamo-Borana Province, Ethiopia. Mindat informs us that an active tantalite mine in "the Main Kenticha pegmatite sheet" is the likely source of the crystal, for beryl, as well as the much commoner amazonite, is on the locality's Mineral List, and some very dark green emerald crystals hide out among the Images for Kenticha on *that* search page. Kevin Ward writes that "a very small collection of incredibly fine emerald specimens from Ethiopia appeared at Tucson this year," but the only representative piece on this page of his site is the one shown here. Largely for its gem value no doubt, the crystal is priced at \$35,000—no April Fool.



Emerald, 4.5 cm, from Kenticha, Kenticha pegmatite field, Seba Boru district, Sidamo-Borana Province, Ethiopia. *Exceptional Minerals* specimen and photo.

 $T_{
m hat}$ will do it for now—enjoy your summers, all!