# Sainte-Marie-aux-Mines Virtual 2021

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# SUMMARY

One year has passed since the first virtual mineral show proposed by Fabre Minerals. At that time the pandemic caused by Covid-19 was hitting hard, affecting mineral shows too. The pandemic issue is still not yet resolved, although vaccines are working where they are being used. With all this, and despite all their efforts that continued until the last moment, the organizers of the Sainte Marie show had to suspend celebration of their long-awaited 2021 event, yet again.

But at Fabre Minerals, backed by a whole year of experience with this type of virtual show, they put all the meat on the grill, showing a lot of muscle and effort in delivering us a new virtual edition, already the fifth in the series, and the second from Sainte Marie, after SMAM 2020, Munich 2020, Expominer 2020 and Tucson 2021.

A virtual show with several new finds, especially from Morocco, a country widely represented at this show and almost always one with news about new deposits, in this case a total of 6! Did we discover them?

## RESUMEN

Ha pasado un año desde la primera feria de minerales virtual propuesta por Fabre Minerals (FM). En ese momento, la pandemia provocada por la Covid-19 golpeaba duramente, afectando también a las ferias de minerales. Pero la cuestión pandémica aun no está resuelta, si bien las vacunas están funcionando allí donde se aplican. Con todo ello y a pesar de los esfuerzos realizados hasta los últimos momentos, la organización de la Feria de Sainte Marie ha tenido que suspender, también, la edición de 2021 de su emblemática y esperada celebración.

Pero en Fabre Minerals, con la experiencia de todo un año con este tipo de ediciones virtuales, han puesto toda la carne en el asador mostrando mucho músculo y esfuerzo en entregarnos una nueva edición virtual, segunda de Sainte Marie, y quinta ya en la serie, tras SMAM 2020, Múnich 2020, Expominer 2020 y Tucson 2021.

Una edición con varios nuevos hallazgos, sobre provenientes de Marruecos, país ampliamente representado en esta feria y casi siempre con novedades en cuánto a nuevos yacimientos, en este caso hasta un total de 6! Las descubrimos?

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FABRE MINERALS



#### SAINTE-MARIE-AUX-MINES (VIRTUAL) 21 - 27 June 2021



#### Barcelona 06/13/2021

This second edition of the Ste. Marie Virtual Show completes the cycle of something that we had to create in these times of pandemic and that, in one way or another, we will continue to do after the pandemic. It was close, but in the end Ste. Marie 2021 (real) is not going to go ahead, however here we are, digitally presenting the simile of something as wonderful as that Fair (:)

At the show, Morocco is very often the King country, and in this edition of Ste. Marie Virtual it will also be so. Up to 6 new finds and / or absolute novelties such as the 'mushroom' rubellites from Beni Bouzra or the stalactitic Malachites and Galenas with associated species from the Georges vein at Sidi Ayad. There will also be more news from other countries, which we will be publishing in the 'Core of Ste. Marie' section throughout the week of June 21-27, in which we will be offering new pieces continuously.

Do not miss the start of Ste. Marie Virtual 2021 on Monday, June 21 at 16:30 (Central European Time). You will find more than 200 new specimens and there will be another 200 pieces that we will publish gradually from June 21 to 27 (both days inclusive)

It will be a party, and although we will not physically be at the Fair we will have a very good time!

#### Non-stop Sainte-Marie Virtual Show, from Monday June 21th at 4:30 p.m. (Central European Time) to Sunday June 27th at fabreminerals.com

Jordi Fabre



n) - Agoudal, MOROCCO 3.1 x 2.9 cm PD: all the minerals photographed in this mailing will not be available until after the opening of the Ste. Marie Virtual Sho



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The cover letter that Fabre Minerals sent out as a notice of what the Sainte-Marie Virtual Show was going to be in 2021, after the official cancellation of the face-to-face show, was a declaration of intent. Morocco was going to be the King of the Fair, which is nothing strange because the Sainte-Marie-aux-Mines show is characterized, as those of you who have ever attended know well, by the large proportion of stands with material from that country compared to the rest of the world. It is also usually the show where more "novelties" are revealed from that country, with "novelties" being understood to be new discoveries of mineral deposits that may either be a new species for the country, or forming part of some paragenesis not known until that moment, either by improving the quality and quantity of already known species, or a mixture of all of the above. And although this may seem "normal" and what "should be" year after year, it is not normal at all. Making new finds from one year to the next, of species that -apparently- did not occur in one or another locality, etc ... is not something that happens in most countries. Finding the reason for this fact is something beyond the scope of this review of a virtual mineral show, but the socio-economic reality, the need, and the marketing of minerals -among many other factors- provides the answer for one of the, mineralogically speaking, most prosperous and productive countries on our planet. The minerals of Morocco are known and recognized by most collectors, but of course there are so many other countries and minerals to look at too. This is what Fabre Minerals proposed to us in this event. Fifth in the series since its inception and closing the cycle of a year that was, let's say, "different".



Sainte Marie Virtual 2021 Update

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The bits and pieces of gadgets needed to follow a virtual show are the usual for these cases. Laptop, mobile phone(s), battery chargers, AC/DC converters for car batteries, etc.

I'll tell you about a particular little personal battle, which is not of general interest, but fate sometimes has curious things in store. This year, like a few years ago, I was desperate to go to the Sainte-Marie show, if it were to have been held in person. A small health problem, fortunately nothing serious, and already in the process of being solved, as well as an intense workload, meant that, much to my regret, I would have been unable to attend the show. In any case, I would have preferred that the real Sainte-Marie-aux-Mines show take place, as this would indicate that the pandemic was already on its way to extinction and that fans, collectors, dealers, photographers and the many other personnel needed to successfully carry out an event of this magnitude, would be happy to meet again and, most importantly, to live for and from what they are passionate about. And I would experience it from home with a certain sadness, from a distance, but with the joy of knowing that everything, little by little, is flowing and that minerals, always minerals, return to meet where they used to meet, in a minerals show.

And now, from home, I am happy and content because Fabre Minerals has made an effort, once again, to bring home that mineral show that we love so much. We are going fully into the 2021 Virtual Sainte-Marie Show to discover the treasures that are hidden there!

> Once the show got started on Monday, June 21, 2021, we had six pages to discover. As you can see, one of them exclusively devoted to pieces from Morocco, with a total of 93 specimens on that page alone! We will delve deeper into this later. As for the "Safe", six pieces ... but what pieces! And in the rest of the pages, a large number of species and specimens, reaching a total of 220 among the six pages. All this enlivened with photos of past editions of the Sainte Marie show where the reader can get a good idea of the atmosphere there, in a privileged environment and in a region, Alsace, as beautiful as they come. Another thing I will highlight and talk about towards the end is the changing way of seeing specimens on a web page. What until now we could only see in a photograph is, little by little, giving way to a video format.

# **EXPOMINERALS.com**

The Core of Sainte Marie Virtual 2021

Hide minerals that are already sold

(para ver esta página en español)

🖻 Back to the Index Update

Thank you for attending the second Sainte Marie Virtual Show

# <sup>20</sup> Sunday June 27 <sup>20</sup> Saturday June 26 <sup>16</sup> Friday June 25 <sup>20</sup> Thursday June 24 <sup>47</sup> Wednesday June 23

The section "The Heart of Sainte Marie" is where the "sauce" of the show is. Here day by day and hour after hour new specimens appear. But since until the show is over you cannot see them all at once, unlike the previous section, one always has doubts and there is the "game" of whether or not to acquire a piece, risking that later or the next day another one appears that you like more or that you want to change or that you want to acquire and someone else gets it ahead of you, something that surely has happened to more than one of us at shows, and your facial expression when this happens is worthy of being immortalized. The advantage of a virtual show is that these faces remain anonymous ;-)). In the Heart of Sainte Marie a total of 128 pieces were published, distributed from June 21 to June 27, just one week. So all together the total number of pieces that could - and can be! - enjoyed is 348. I used to start the previous chronicles with the "Safe" section, but this time I am going to change the style of the chronicle. Although a mere description of the pieces that I am going to review is inevitable, I am trying to contribute something new. Well, a whole year has passed since that first virtual chronicle about a virtual mineral show, and everything changes, and this year has changed us all, including -perhaps- our way of seeing things. But if something has not changed, it has been the passion for minerals and nevertheless, despite the lack of shows, the truth is that this year I have been able to see many minerals thanks to what is obsoletely called "new technologies". In this sense, websites and attempts at virtual mineral shows are proliferating, platforms that bring together different dealers, etc. as a "cooperative". And in that sense, Fabre Minerals offers us, via the web, the closest thing to a mineral show. The evolution from a year ago to the recently cancelled Sainte-Marie Show 2021 is evident by browsing: https://www.fabreminerals.com/expo/Sainte-Marie-aux-Mines\_Virtual/2021Virtual/webupdate/AN2-Ste\_Marie-virtual\_2021-indexes.php

With these premises, on page 1 we find pieces from the former Bob Noble collection, USA, Mexico and Canada. It should be noted that the former Bob Noble collection is made up of "thumbnail" pieces, an American term that designates miniatures, that is, pieces that usually do not exceed 3.0 x 3.0 cm., ideally composed of a relatively large crystal with little matrix, presented in a "Perky" box. This type of collection allows to have many species and many specimens in a relatively small space and with a uniform configuration and presentation. And like all types of collection, it has its pros and cons. As for physical space, it is clear that this is a perfect option for those who do not have much. Another advantage is that small pieces tend to be better preserved and it is easier to find pieces without dings that disfigure part or all of its crystals. And in a way, the price of such specimens will normally be lower than that of larger ones, for equal crystallization and definition, and equal aesthetics. Here is a review of the pieces that most caught my attention in this thumbnail world.



Minium. Tonopah-Belmont mine, Bighorn Mountains, Maricopa County, Arizona. Specimen size:  $2.6 \times 2.3 \times 1.4$  cm. Concretions of Minium, a rare species in mineral collections, bright and uniform red in color, on matrix, with Quartz and Galena in cavernous and grainy aggregates. It is a lead oxide, not very common in mineral deposits, of secondary origin in areas of high oxidation. It has often been confused with Litharge and even Cinnabar. Many of you will remember one application of Minium: In powder form it was used in antioxidant paints applied to metals that were going to remain outdoors. The orange color of that paint was characteristic. It was gradually withdrawn from the market due to its lead content. One more example of the growing stupidity to which humans are sinking at a uniformly accelerating rectilinear rhythm.







Siderite with Calcite and Sphalerite. Siglo XX mine, Llallagua, Potosí Department, Bolivia. Specimen size: 2.6 × 2.5 × 1.7 cm. The largest crystal measures 2 × 1.4 cm. Group of Siderite crystals with very sharp crystal forms and slight curvatures, with a satin luster and a highly contrasted double coloration: with some dark areas and others with a light brown color. The group is on matrix, with small crystals of Calcite and Sphalerite. This mine was exploited for bismuth, tin and tungsten but it had a series of social incidents that escape the parameters of this chronicle but about which several books have been written, and it even reached the big screen in the hands of the seventh art. This piece was part of the Alfredo Petrov collection.



And here we have the aforementioned Alfredo Petrov, in a vellow shirt, enduring the heat of the last face-to-face edition of the Sainte-Marie show in 2019, along with Antonio P. López, another mineral enthusiast, who was looking for a specimen of Alfredopetrovite! The plan was perfect, nothing could go wrong.



Cassiterite. Elsmore Hill, Gough County, New South Wales, Australia. Size: 2 × 2 × 2 cm. The largest crystal measures 1.7 × 1.2 cm. Group, on matrix, of twinned Cassiterite crystals, translucent and lustrous. From a known but little publicized locality in the world of mineral collecting and of excellent quality for the locality, being the first mine reported for the exploitation of tin in New South Wales.

In the year 2017 some illustrious American collectors made an appearance at the show, the first visit for some of them. Accustomed to American shows, including the "monster" Tucson show, it was to be expected that a visit to a mineral show such as Sainte-Marie would leave them at least in a state of shock. What I do not dare to venture is the duration of that "shock".



Epistilbite. Jalgaon district, Maharashtra, India. Specimen size: 2.8 × 2.4 × 1.8 cm. The largest crystal measures 2.3 × 2.2 cm. Spheroidal growth of Epistilbite on matrix. Translucent, lustrous, and a uniform pale blue. This mineral, from the Zeolite group, is much less common than Stilbite in the classic deposits of the Deccan Traps region of India.



Jordi Fabre with Gail Spann, above, and with Dave Wilbur on the right.

The illustrious Thomas P. Moore, notebook in hand so as not to miss any details of those mineralogical novelties and non-novelties that he will later capture for articles in the Mineralogical Record as well as in his magnificent reviews offered through the online section known as "What's New in Minerals", which can be consulted at https://mineralogicalrecord.com/ whats-new/





And to finish page 1, pieces from the USA, Mexico and Canada, one for each country.



Quartz. Herkimer County, New York. Specimen size:  $2.4 \times 1.9 \times 1.3$  cm. Complete floater Quartz crystal with uneven growths on the faces and extraordinarily lustrous, transparent and colorless. This type of Quartz is popularly known as a "Herkimer diamond". An excellent USA classic that comes from the Lluís Daunis collection. Lluís Daunis i Montada was an excellent field collector in Spain and especially in the areas of Catalonia, Huesca and Madrid, as well as being a discriminating collector, as this crystallographically very rich piece attests.





Quartz (variety amethyst). Piedra Parada (Las Vigas), Tatatila Municipality, Veracruz (Veracruz de Ignacio de la Llave), Mexico. Specimen size:  $8.2 \times 6 \times 2.7$  cm. The largest crystal measures  $5.8 \times 1.6$  cm. Group of Quartz crystals (amethyst variety) totally or partially doubly terminated, transparent, very lustrous and with a very vivid and uniform color. A very elegant and aesthetic specimen, and something different from those usually seen from this world-class classic locality for amethyst. The color is extraordinary.



Vesuvianite. Jeffrey Mine, Asbestos, Les Sources RCM, Estrie, Québec, Canada. Specimen size:  $3.4 \times 0.7 \times 0.7$  cm. Doubly terminated crystal of Vesuvianite with the two terminations being quite different, one of them with a smooth and shiny pinacoidal face and the opposite end irregular and matte. The Jeffrey mine has been inactive since 2001 so obtaining quality specimens from there is only possible from material held back by dealers or pieces recycled from old collections, as is often the case with many deposits, both on a national and international level.





A "zen" moment to get away from the mineral bustle, reconsider whether or not to acquire a piece, and later the monumental anger on discovering that a piece that you liked -and you had convinced yourself to acquire- is no longer there because someone without so many doubts has made off with it. You learn from everything.



On page 2 the following countries are grouped: Spain (with a separate section for Spanish Fluorite), Portugal, France, the rest of Europe, and Turkey. Turkey is noteworthy, a country that has pretty much gone unnoticed mineralogically speaking but from which little by little interesting contributions are emerging. On the mineralogy of Europe and specifically the Iberian Peninsula there are some things to add, a lot of variety, quality, and classics for all tastes and pocketbooks.



Gypsum pseudomorphs after calcite. Barranco de Los Cazadores, Rivas-Vaciamadrid, Madrid, Spain (09/2020). Specimen size:  $4.8 \times 4.8 \times 4.8$  cm. The Calcite is fluorescent under both long and short wave UV. Rosettes of Gypsum crystals replaced by Calcite. These pseudomorphs are translucent, with a certain luster and a uniform cream-white color. The specimen comes from a recent find in an area where we were not aware until now of the presence of these curious pseudomorphs. A rarity. The deposit occurs in the Miocene gypsum facies, in a ravine that is a tributary to the Jarama.



Jordi Fabre, in his thirties, back in 1991, with a fluffy beard, waiting in Sainte-Marie. A lifetime dedicated to and for minerals. And he still continues, without a beard, but with minerals as a vital axis.





Baryte with Fluorite. Berbes mining district, Ribadesella, Asturias, Spain. Specimen size:  $11.4 \times 9.2 \times 8$  cm. The largest crystal measures  $1.2 \times 1.2$  cm. Fluorescent under both long and short wave UV. Group of transparent and lustrous Fluorite crystals on a matrix of white lenticular Baryte crystals larger than those usually found there. Berbes specimens have already become a world-class classic. Pieces like the one shown are getting more and more difficult to find, so getting one of this type is already a great little treasure.







In recent years the Ste-Marie Show has repeatedly suffered from the tremendous heat waves that hit a large part of Europe, and Alsace was not immune to this. In the image on the left, the misting devices that the organization arranged at various points around the show. On the right Jim Spann and Mike Rumsey cooling down. In the background Eloïse Gaillou, already barefoot.



Copper with Fluorite. Le Burc mine, Alban-Le Fraysse area, Tarn, Occitanie, France. Specimen size: 6.7 × 5 × 4.7 cm. Former collection.

Dendritic growth of small Copper crystals with sharp crystal forms and shiny surfaces, on which the-

re is a transparent

and colorless Fluori-

te crystal with very

and parallel growths.

The specimen is a

significant rarity for

the mine, known for

its Fluorites, being

the last mine ope-

rated in France for

irregular

Corlier

marked

Arsenopyrite-Marcasite with Siderite and Muscovite. Panasqueira mines, São Francisco de Assis, Covilhã, Castelo Branco, Cova da Beira, Portugal (1999). Specimen size:  $13.4 \times 8.8 \times 3$  cm. The largest crystal measures 3 × 2.6 cm. Fan-shaped aggregates of crystals formed by a first phase of Arsenopyrite with a metallic gray color,

followed by a second phase with very sharp crystals of Arsenopyrite-Marcasite, with the typical "cockscomb" habit. Associated with lenticular crystals of light cream Siderite and leafy aggregates of Muscovite crystals. The Panasqueira mines are a world-class classic deposit especially for sulphides as well as many other mineral species. Work began in 1896. During the Second World War some 10,000 people worked in these mines. Currently the figure is around 370 people with an estimated 25 years of exploitation left. We will see whether there are surprises in the form of new mineral species to add to the 87 species described so far, two of them "type locality" (TL).



Fluorite, exploited from 1945 to April 2006. During ancient times the deposit had been exploited for copper, precisely in the original vein of Fluorite. Therefore, this piece summarizes the entire history of this mine and the changes generated by humanity's different needs for materials in each age, and that thanks to minerals - always minerals! - we continue to move forward.



Sainte-Marie-aux-Mines during the peak of the mineral show. The cones of the tents mimic the cones of some of the town's bell towers. The surroundings and the municipality itself offer spectacular views, as well as the surrounding villages with their vast fields, their characteristic ball-like mountains offer a respite from the bustle of the show. If we add gastronomy, oenology and ethology to this, we have it all.



Galena with Chalcopyrite, Siderite and Dolomite. Vereinigung mine, Katzwinkel, Altenkirchen (Westerwald), Siegerland, Rhineland-Palatinate, Germany. Specimen size: 3.3 × 3.2 × 2.7 cm. The largest crystal measures 1.6 × 1 cm. Very aerial crystal of Galena, cubo-octahedral, with a very flattened tabular habit and a distinct spinel-law twin. On matrix, with lustrous Chalcopyrite crystals with very sharp crystal forms and strong curvatures on their faces and edges, with tabular Siderite crystals of light cream color and with white Dolomite crystals. The specimen was previously in the Guenter Grundmann collection and was photographed and published as a reference for Siegerland by Lapis magazine on page 30 of its 7-8 / 1991 issue. This mine exploited iron, lead and copper, closing in 1961.



Hydroboracite with Calcite and Celestine. Hisarcik mine, Emet borate deposit, Kütahya Province, Aegean Region, Turkey (2020). Specimen size:  $10.3 \times 6.9 \times 5.7$  cm. The largest crystal measures 1.2 × 0.1 cm. Centered groups on matrix of transparent and very lustrous acicular Hydroboracite crystals, with small transparent and colorless crystals of Celestine and orange spheroidal growths of Calcite that are fluorescent under both long and short wave UV. Of excellent quality for the species. The species have been confirmed by analysis.

We come to page 3 dedicated exclusively to Morocco, and it is no wonder. The Sainte-Marie show is the greatest show in terms of that country since it is where the new discoveries made from the previous summer to the present are usually exhibited first. Many dealers and visitors who come to Sainte-Marie do so with the expectation of what they will be able to find "new" from that country in terms of minerals, and I leave aside the fossils since that topic deserves a separate chronicle. Mineralogically speaking, the 2021 Virtual Show could be considered a success in terms of novelties and exceptional finds from Morocco. The reader may wonder about the reason for these many finds, more than in other countries, since Morocco is not such a large country in terms of area. The answer is multifactorial but, in synthesis, they can be summarized in three large blocks, two of them linked. First and foremost is the geology, with large lithological units, well stratified, much affected by tectonics, causing very old rocks to outcrop on the surface, and finally magmatic influences causing chemical changes and alteration in many of the sediments. Secondly, the socio-economic reality of the country leads to continuous mining work in different parts of Morocco. This directly causes the third factor, which is artisanal mining. Leaving aside the large active industrial-scale mining operations, time to time, yield exceptional finds.

In the introduction, the discovery of 6 new finds and/or novelties was announced by Fabre Minerals, but after some time and after analytical confirmation of more species we can raise that figure to 8. Noteworthy finds are:

- Rubellites of the "mushroom" type from Beni Bouzra. Pay attention to this deposit ...
- Malachites and Galenas (the latter associated with other mineral species) from the Georges vein in the Sidi Ayad mining area.
- Magnetite (titaniferous variety) with Microcline and Quartz from Imilchil.
- -Azurites from the Tazalarht mining area, although not really new, they are new with regard to color and brightness of the specimens.
- -Malachites of primary origin from the Tazalarht mining district.
- -Picropharmacolites from Bou Azzer, which although not new, are better and with a more intense color.
- -Chlorapatites with Ferro-actinolites, some of them with Titanite, from the Imilchil area.

These last two novelties were not seen in the Virtual Show because the analytical results were still pending, but in the post-Sainte Marie 2021 edition of Fabre Minerals, a lot of those specimens were displayed. But Morocco is new things and much more!



Silver with Gypsum and Calcite. Aït Ahmane, Agdz, Bou Azzer mining district, Zagora Province, Drâa-Tafilalet Region, Morocco. Specimen size:  $5.6 \times 3.7 \times 3.1$  cm. The largest crystal measures  $0.3 \times 0.2$  cm. Fluorescent calcite, under both long and short wave UV. Isolated cubic Silver crystals with extraordinarily well defined and bright faces and edges. On matrix, with Gypsum, and Calcite that has been acid-etched. This type of specimen was found at the end of 2020, the presence of crystallized silver showing such sharp crystals being a novelty for this mine. The association with Gypsum makes the union of these two minerals in the same piece even more rare.









Fluorite with Baryte. Aghbala, Béni Mellal Province, Béni Mellal-Khénifra Region, Morocco. Specimen size:  $8.1 \times 7 \times 6$  cm. The largest crystal measures 5 × 4.4 cm. Zoned fluorescence under both short and long wave UV. Cubo-octahedral Fluorite crystal with very sharp crystal forms and with hopper formations in the center of some of its faces. It is translucent, rich in inclusions and with irregular areas of color ranging from green to blue to purple. It comes from a little-known locality where good specimens are rare. I have seen very few pieces from this locality on the market, just this one and a few more in private collections, nothing common.





Fluorite with Baryte. Jebel Saghro, Imiter District, Tinghir Province, Drâa-Tafilalet Region, Morocco (2021). Specimen size: 6.7 × 6.4 × 4.2 cm. The largest crystal measures 2 × 2 cm. Cubo-octahedral crystals of Fluorite, beveled by dodecahedral forms, with a rough appearance due to fine polycrystalline growths. They are translucent and have a very deep color, and are on a matrix of Baryte crystals. This piece became part of my private collection, the Moroccan part, which has a considerable "weight".



Malachite with Calcite and Cerussite. Georges vein, Sidi Ayad (Sidi Ayed), Boulemane Province, Fès-Meknès Region, Morocco (02/2021). Specimen size:  $6.1 \times 2.6 \times 1.4$  cm. Calcite and Cerussite, fluorescent under both long and short wave UV. A novelty at Sainte Marie Virtual 2021. Stalactitic growths, on a limonite matrix, of spheroidal Malachite aggregates with a silky luster and deep color, with white Calcite coatings and small acicular crystals of Cerussite. The specimen comes from a discovery in 2021 in the Sidi Ayad area (not in the Sidi Ayad mine). Although the presence of Malachite was known in the Sidi Ayad area, specimens with this quality were never found, both due to the development of the crystals and for the association with Calcite and Cerussite, in deposits which actually exploit lead.

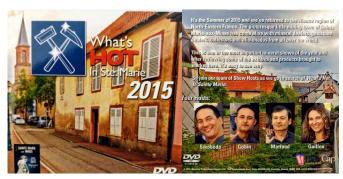




Calcite (cobalt-bearing variety) with Quartz. Bou Azzer mines, Zagora Province, Drâa-Tafilalet Region, Morocco (2021). Specimen size:  $3.1 \times 1.4 \times 1.1$  cm. The largest crystal measures  $1 \times 0.9$  cm. Fluorescent under shortwave UV, and mildly under longwave UV too. Rosette growths of flattened lenticular Calcite crystals (cobalt-bearing variety), translucent, with good luster and an extraordinarily intense color, on matrix with Quartz. Although cobalt-bearing Calcite was already known in Bou Azzer, this type of specimen surpasses in quality what has been known until now. One of the specimens seen at the show has also "entered" my private collection, adding a point of light, shape and color. Certainly many of the novelties from Morocco this year remind us of la vie en rose. And the fact is that the Bou Azzer mining district is still extracting cobalt, in addition to silver.



Chris Gobin, Jordi Fabre and Bryan Swoboda, camera in hand and main manager of BlueCap Productions, in pleasant conversation before recording part of the 2015 edition of "What's Hot in Ste. Marie".



Here we see the covers of the DVD corresponding to WHSM 2015 with the cameraman and director of BlueCap Productions Bryan Swodoba, and with the "interviewers" of that year, Chris Gobin, Alain Martaud and Eloïse Gaïllou. It is easy to find them, as mineral shows are their natural habitat. I cannot imagine the day when they meet again at a face-to-face show once the covidian pandemic has ended.



Magnetite (titanium-bearing variety) on presumably large Ilmenite crystals with Microcline and Quartz. Imilchil zone, Anti-Atlas, Er Rachidia Province, Drâa-Tafilalet Region, Morocco (12/2020). Specimen size:  $3.5 \times 3.5 \times 1.7$  cm. The Microcline is fluorescent under short wave UV. A novelty at Ste. Marie Virtual 2021. Octahedral crystals of titanium-bearing Magnetite in parallel growths and with a compound habit that suggests pseudomorphic substitution after an Ilmenite crystal. The lustrous Magnetite crystals with fine growth striations are partially covered by Microcline and Quartz crystals. The Magnetite and Microcline have been duly analyzed.





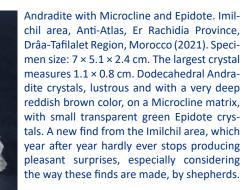
Elbaite ("mushroom" variety). Beni Bouzra, Chefchaouen Province, Tanger-Tetouan-Al Hoceima Region, Morocco (2021). Specimen size:  $7.2 \times 4 \times 4.5$  cm. The largest crystal measures  $4.9 \times 3.4$  cm. Slight fluorescence with short wave UV. A novelty at Sainte Marie Virtual 2021. Group of crystals of Elbaite (variety rubellite) of good size that form an aggregate with a "mushroom" habit. They are translucent and have an intense and uniform color. The specimen comes from a 2021 find in the Beni Bouzra area. Exceptional. For me one of the most outstanding specimens of the show, and it will be interesting to follow the evolution of this locality. More information about this find and its relationship to other deposits can be found at: https://www.foro-minerales.com/forum/viewtopic.php?t=14767



Elbaita ("mushroom" variety). Beni Bouzra, Chefchaouen Province, Tanger-Tetouan-Al Hoceima Region, Morocco (2021). Specimen size:  $5 \times 3.4 \times 2.6$  cm. Slight fluorescence with short wave UV. A novelty at Sainte Marie Virtual 2021. Fine Elbaite crystals (rubellite variety) form an aggregate with the habit known as a "mushroom", translucent, with an intense and uniform color. The specimen comes from a find in 2021 in the Beni Bouzra area.



Classic print in Sainte-Marie-aux-Mines, before, during and after the show.







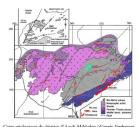




Andradite with Microcline and Epidote. Imilchil area, Anti-Atlas, Er Rachidia Province, Drâa-Tafilalet Region, Morocco (2021). Specimen size:  $7.1 \times 4.4 \times 3$  cm. The largest crystal measures  $1.3 \times 1.2$  cm.



Galena with Cerussite, Plumbogummite, Quartz and Wulfenite. Georges vein, Sidi Ayad, Boulemane Province, Fès-Meknès Region, Morocco (03/2021). Specimen size:  $5.4 \times 4.5 \times 3.4$  cm. The largest crystal measures  $3.5 \times 3$  cm. A novelty at Sainte Marie Virtual 2021. Group of equant Galena crystals with coatings of white microcrystals of Cerussite. They are also partially covered by Plumbogummite of a slightly bluish color and microcrystals of Quartz and, on top of this, small crystals of transparent yellow Wulfenite with a bipyramidal habit. Above the set there are Quartz crystals. The specimen comes from a 2021 find in the Georges vein in the Sidi Ayad area, and has been carefully analyzed.



Geological map of the Aouli-Mibladen mining district (Emberger, 1965)



Micro photo: Dr. César Menor-Salván



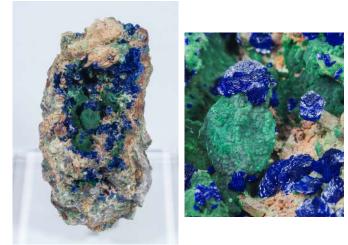


Galena with Cerussite, Plumbogummite, Quartz, Wulfenite and Baryte. Georges vein, Sidi Ayad, Boulemane Province, Fès-Meknès Region, Morocco (03/2021). Specimen size:  $10.8 \times 8.7 \times 5.9$  cm. The largest crystal measures  $3.8 \times 2$  cm. The Galena is associated with lamellar salmon-colored Baryte crystals that add a touch of color and contrast to the piece.



Azurite with Quartz. Tazalarht mining district, Taroudant Province, Souss-Massa Region, Morocco (2021). Specimen size:  $5.7 \times 5 \times 3.4$  cm. The largest crystal measures  $0.6 \times 0.3$  cm. A novelty at Sainte Marie Virtual 2021. Elongated Azurite crystals that are transparent, with a great luster and a very vivid blue color that is reminiscent of, and even surpasses, the "electric blue" of the best Milpillas specimens. This specimen, on a matrix with Quartz, comes from finds made in 2021 in the Tazalarht area. Although in 2008 specimens of Azurite had already been found in that area, this year, 2021, when these pieces appeared, was the year in which a qualitative leap was made for Azurites.





Azurite with Malachite and Quartz. Tazalarht mining area, Taroudant Province, Souss-Massa Region, Morocco (2021). Specimen size: 6.8  $\times$  4.5  $\times$  3.8 cm. The largest crystal measures 0.8  $\times$  0.6 cm. A novelty at Sainte Marie Virtual 2021. Groups of Azurite crystals with a lenticular habit, translucent, lustrous and with a very vivid blue color, in which a first generation of Azurite crystals was pseudomorphed by Malachite. They sit on a matrix with Quartz and Malachite coatings. The specimen comes from finds in 2021 in the Tazalarht area. Beautiful contrast between green and blue for these copper carbonates.





Malachite. Tazalarht mining district, Taroudant Province, Souss-Massa Region, Morocco (2021). Specimen size: 13.7 ×  $7.8 \times 4.7$  cm. A novelty at Sainte Marie Virtual 2021. Coatings of deep green primary Malachite crystals with irregular but recognizable shapes, with a second generation of centered growths of fine acicular crystals with a silky luster and very vivid color. On a limonite matrix. The specimen comes from recent finds in the Tazalarht area.

And on page 4 we visit the following geographical areas: Africa, Brazil, South America, China, and the rest of Asia.





Elbaite. Rubaya, Bahunde, Masisi Territory, North Kivu Province, Democratic Republic of the Congo (Zaire) (2020). Specimen size:  $4.7 \times 1.1 \times$ 1 cm. Weight: 8.6 grams. Parallel growth of two Elbaite crystals with very sharp crystal forms and excellent upper terminations. Very sharp, transparent, very lustrous and with the base of the prism up to the middle of the crystal pink with gradations in the color tones, and the terminal area of pale and uniform green color. A gem.



The years go by and leave empty spaces, some of them difficult to forget. In this 2010 photo, two of the people who appear are missing, Luiz Menezes on the left and José Ramón García Álvarez on the right, both in the foreground. May this photo serve their memory.





Doubly terminated anatase with epitaxial Anatase-Rutile rutile. occurrence, Cuiabá District, Gouveia, Minas Gerais, Brazil (03/2003). Specimen size: 3.2 × 1.6 × 1.1 cm. The largest crystal measures 3.2 × 1 cm. Floater parallel growth of very acute bipyramidal Anatase crystals completely covered by fibrous epitaxial Rutile crystals with a reddish yellow color.





Calcite (manganese-bearing variety) with Quartz, Sphalerite and Rhodonite. Austria Duvas mine, Morococha District, Yauli Province, Junín Department, Peru (02/2021). Specimen size:  $14.2 \times 6 \times 7.3$  cm. Spheroidal growths of lenticular Calcite crystals (manganese-bearing variety) with an intense pink color, which cover a matrix with translucent Quartz crystals and small Sphalerite crystals, partially covered by Rhodonite microcrystals included in a white clay mass. From a find in 2021 in a mine little-known until now. The different species had been analyzed so that the buyer could get a copy of the analyses.



Roweite with Olshanskyite. Shijiangshan mine, Linxi, Ulanhad League, Inner Mongolia Autonomous Region, China (04/2017). Specimen size:  $7.6 \times 5.2 \times 3$  cm. The largest crystal measures  $2.2 \times 1.4$  cm. Aggregates of lamellar Roweite crystals of great size and quality for the species. Well differentiated, with well defined faces and edges and a light creamy color, on matrix, with radial aggregates of colorless, transparent and lustrous Olshanskyite crystals. The quality of these specimens is indisputably superior to what was previously known, both for the individualization of the crystals and for their sharpness of forms, the size of the crystals and their association with Olshanskyite. Both species have been analyzed. This lead-zinc mine is hosted in a skarn-type mineralization rich in boron minerals, an element present in both mineral species.





Pyromorphite. Black Star pit, Mount Isa, Mount Isa City, Queensland, Australia. Specimen size:  $7.8 \times 7 \times 3.9$  cm. The largest crystal measures 1  $\times 0.3$  cm. Fluorescent under both long and short wave UV. Pyromorphite crystals, many of them doubly terminated, with an elongated prismatic habit, slight curvatures on the edges and some hopper terminations. The crystals, on a limonite matrix, have a uniform cream-yellow color. The specimen is old and of great quality for the locality. It reminds one of the Pyromorphite specimens from the Des Farges mine in France.



The mountains of Alsace, on the right bank of the Rhine, have a peculiar morphology and look like domes, hence their nickname the "ballons" of Alsace. And there is also an actual mountain called Ballon d'Alsace which was the first peak to be climbed on a Tour de France back in 1905.

It is time to enter page 5 or rather "The Safe". Only six pieces but all of them dreamlike. Faced with this type of specimen, little can be said, other than admiring them, enjoying them, and at a certain point venerating them. Blessed is the creature that can acquire one of them.





Elbaite. Rubaya, Bahunde, Masisi Territory, North Kivu Province (Kivu), Democratic Republic of the Congo (Zaire) (2020). Specimen size:  $6 \times 2 \times 1.8$  cm. Weight: 39.6 grams. Parallel growth of two Elbaite crystals with very sharp crystal forms and excellent upper terminations. The crystal faces are very sharp, transparent and lustrous, with the base of the prism of an intense wine-red color with gradations in the color tones, and the terminal area of an intense and uniform green color. High quality and very elegant. These Elbaites are found in a geological context that corresponds to a zone of laterites, hardened soils poor in silica, but rich in iron and alumina. But these crystals are found in remnants of pegmatite dikes. Their colors are caused by elements such as Fe or Mn as the main chromophores. The extraction of these crystals is done by hand in shafts, trenches or small tunnels dug in the laterite.



Azurite. Shaft no. IX (Puit IX), Touissit, Jerada Province, Oriental Region, Morocco ( $\pm$  1980). Specimen size: 6.1 × 5.9 × 3.7 cm. The largest crystal measures 3.7 × 2.1 cm. Group of elongated Azurite crystals, one of them clearly dominant, very rich in crystal forms and with excellent very lustrous and smooth terminations, while the faces at the base of the prism are finely granular. An excellent specimen, reminiscent of those



extracted in this locality between 1979 and 1989. The Touissit mine area is closed and the old shafts are flooded, so it is difficult to get quality pieces from there unless they are specimens from old collections that are put up for sale. In this case a "classic classic" of those that were extracted during Touissit's heyday.





Wulfenite. Shaft no. XI (Puit XI), Touissit, Jerada Province, Oriental Region, Morocco ( $\pm$  1980). Specimen size: 6.1 × 5.5 × 2.8 cm. The largest crystal measures 1.7 × 1.5 cm. Outstanding floater group of fine tabular Wulfenite crystals, very sharp, clearly hemihedral and rich in lateral faces, with great luster and an intense yellow color. A Moroccan classic of great quality and totally perfect. The Touissit-Bou Bekker mining district extends ENE-WSW for 16 kilometers, with a width that varies from 100 to 1,200 meters, penetrating 3 kilometers into Algeria, containing lead and zinc mineralization hosted in carbonate rocks.



Gersdorffite. Aït Ahmane, Agdz, Bou Azzer mining district, Zagora Province, Drâa-Tafilalet Region, Morocco (04/2017). Specimen size: 16 × 11.2 × 10.7 cm. The largest crystal measures 2 × 1.8 cm. Large group of octahedral Gersdorffite crystals of good size, very sharp, isolated and lustrous, on a Nickeline matrix, which guarantees stability to the whole piece, and with small green Annabergite coatings. Simply exceptional. Several specimens were seen at the Sainte Marie show in 2017. However since then in successive shows, few of this type of specimen have been seen, and getting a quality piece is becoming more and more complicated. With minerals one never knows when is the best time to acquire them, not knowing if the supply will last a long time in the market or not. From what I have been seeing, it often happens that sulphides as aesthetic as this one have only a short appearance in the mineral market.



Rhodochrosite. Hotazel mine, Hotazel, Kalahari manganese field (KMF), Northern Cape, South Africa. Specimen size:  $8.8 \times 6.4 \times 4$  cm. The largest crystal measures  $1.2 \times 0.8$  cm. A historical piece, since the first 'top' Rhodochrosites from the Kalahari area were found in Hotazel before they were found in N'Chwaning too. It is a druse of very sharp and well differentiated scalenohedral crystals, between transparent and translucent, with a bright luster and an intense and uniform color. A magnificent classic of African mineralogy in which some crystals show cleavages, something very difficult to avoid in specimens of this type and size and that practically do not affect the general aesthetics of the piece, taking into account the quality of the group.

And finally on page 6 we enter the "Heart of Sainte Marie". This page is different from the rest because it is the dynamic section of the show where specimens appear uninterrupted, daily and throughout the day, specifically from Monday, June 21st, to Sunday 27th, with a total of 128 pieces. We are going to echo here those that attracted the most attention, always from a personal point of view and, therefore, very subjective, although it is necessary to describe a small nuance. These minerals were published at intervals during the day. But these pieces, unlike those on the "fixed" pages, did not carry any written description, only the photographs (and videos) of the piece, and the label with the name of the mineral species and the locality, as well as the sale price. In other words, just what we ought to usually find at shows, although often without such quality locality data, and without a price! This is something that trade fair organizations are trying to establish. Seeing a label with the name of the mineral species, the locality and the price makes it much easier for both the seller and the visitor to avoid the consequent loss of time spent asking. But the issue of prices, bargaining and various negotiations is really beyond the scope of this report.

Once this difference was understood, one appreciated it when after a day, or a day and a half at the most, the descriptions of the published specimens were already appearing, so the amount of information expanded with much more detail. Another thing altogether was whether the piece that we were interested in was still for sale or already had a little "sold" sign on it, and our subsequent annoyance.



Elbaite (variety rubellite). Beni Bouzra, Chefchaouen Province, Tanger-Tetouan-Al Hoceima Region, Morocco (2021). Specimen size: 7.3 x 5.5 x 3.4 cm. Main crystal: 2 x 0.8 cm. Isolated crystal of Elbaite (rubellite variety), sharp, with good terminations, between transparent and translucent and with a very deep red color, on a Feldspar matrix. A locality that can offer us pleasant surprises in a short time.



Erythrite with Quartz. Bou Azzer mine, Zagora Province, Drâa-Tafilalet Region, Morocco. Specimen size:  $4.5 \times 2.6 \times 1.8$  cm. Main crystal:  $3.7 \times 0.3$  cm. Centered and very aerial growth of prismatic Erythrite crystals, much more elongated and longer than usual, with good luster and a very deep color, on matrix with Quartz. A Bou Azzer classic and with a different touch from the specimens usually seen there.







Fluorite. La Barre mine, Saint-Jacques-d'Ambur, Pontgibaud, Saint-Ours, Riom, Puy-de-Dôme Department, France (12/2019). Specimen size: 4.2 x 3.1 x 1.7 cm. Main crystal: 1.1 x 1.1 cm. Group of very sharp Fluorite crystals between transparent and translucent, with good luster and an intense yellow color with a fine geometric zoning on the violet edges. Of great quality among those known from this mine, it comes from one very limited find. This specimen came from the Alain Martaud collection.



Mimetite with Beudantite. Filón Sur cut, Tharsis mines, Alosno, Huelva, Andalusia, Spain (9-10 / 2011). Specimen size: 5.1 x 3.4 x 1.6 cm. Main crystal: 0.3 x 0.2 cm. Thick tabular crystals of Mimetite, very sharp and of excellent quality, in groups or isolated, with very sharp crystal forms, translucent, with a bright luster and an intense color between orange and yellow. They are found on a limonite matrix with botryoidal growths of Beudantite microcrystals. Both species had been analyzed and so a copy of the analyses could be sent to whoever acquired the specimen. This type of specimen was found in the external part of the cut and already represents a classic of Spanish mineralogy and especially of the lberian pyrite belt.





Millerite with Jamborite, Galena and Chalcopyrite. Eugenia mine, Bellmunt del Priorat, Tarragona, Catalonia, Spain. Specimen size: 2.5 x 2 x 1.6 cm. Bundles of lustrous acicular Millerite crystals, of a brass-gold color and with partial coatings of light green Jamborite, on matrix, with Galena and Chalcopyrite. A Catalan classic, with the addition of showing the Galena on the back, which is very rare in these specimens, and also that the specimen is not acid-treated. These little treasures may go unnoticed, but they are there.



Representatives of Spain next to the stairs of the Theater, the nerve center of the Sainte-Marie-aux-Mines show.



Fluoro-richterite with Calcite. Wilberforce area, Haliburton County, Ontario, Canada. Specimen size: 13.2 x 8.6 x 3.1 cm. Main crystal: 2.9 x 0.8 cm. Fluoro-richterite crystals, many of them doubly terminated, very sharp, with good terminations, a silky luster and a dark greyish green, almost black color. The crystals have grown embedded in a matrix of white Calcite. A Canadian classic relatively abundant decades ago but currently in short supply. An interesting sodium-calcium amphibole.



Fluorite. La Viesca mine, La Collada mining district, Huergo, Siero, Oviedo region, Asturias, Spain. Specimen size: 12.7 x 9.8 x 7.6 cm. Main crystal: 4.7 x 3.5 cm. Fluorite crystals of cubic habit beveled by the faces of the dodecahedron, polycrystalline and staggered. The crystals, transparent and lustrous, have a fine geometric color zoning with dominant violet tones on the outside and azure blue in the nucleus. What to say about Asturian Fluorites? Simply magnificent.



Azurite. Kerrouchen, Khénifra Province, Beni Mellal-Khenifra Region, Morocco (2007). Specimen size:  $5.6 \times 4.7 \times 2.6$  cm. Main crystal:  $5 \times 1.2$  cm. Very aerial group, on matrix, of elongated Azurite crystals, some of them doubly terminated, with distinct polycrystalline growths, a bright luster and very vivid color. And so Morocco is yielding Azurites of a quality, and above all color, that are not far from the "electric blue" of Milpillas.



Andradite with Pvrite and Microcline. Imilchil zone, Anti-Atlas, Er Rachidia Province, Drâa-Tafilalet Region, Morocco (2021). Specimen size: 4.9 x 4.7 x 3.4 cm. Main crystal: 2 x 1.8 cm. Group of dodecahedral Andradite crystals with lustrous trapezohedral faces, some of them with coatings of Pyrite microcrystals, and with Microcline. These specimens have been a novelty in this edition of the show, specifically, being the only ones that contain Pyrite in addition to Andradite and Microcline. Imilchil always holds pleasant surprises in the mineralogical world.



Fluorite with Quartz. Tres de la Collada vug, La Viesca mine, La Collada mining district, Huergo, Siero, Oviedo region, Asturias, Spain (01/2004). Specimen size: 12.4 x 9.8 x 4.7 cm. Main crystal: 4.8 x 4 cm. Crust of Fluorite crystals with a cubic habit clearly bevelled by the dodecahedron , transparent, with good luster and a very deep violet

color with bluish tones. The specimen came from the Raúl Sanabria Orellana collection.







The valley where Sainte Marie is located, in the heart of Alsace, makes the sky turn ugly from one moment to the next and a storm looms not far away. Contrasts in time, contrasts in people and contrasts in minerals.

Fluorite. Moscona mine, El Llano, Solís, Corvera de Asturias, Avilés Region, Asturias, Spain. Specimen size:  $26.2 \times 20.4 \times 4.2$  cm. Main crystal:  $1.4 \times 1.4$  cm. Large group of very sharp Fluorite crystals, transparent, with good luster and an intense yellow color and with a very evident geometric zoning highlighted by oriented Pyrite inclusions.





Cubanite. Henderson mine No. 2, Chibougamau, Nord-du-Québec, Québec, Canada (1986). Specimen size: 1 x 0.7 x 0.6 cm. A twin of thick tabular Cubanite crystals with very sharp crystal forms, lustrous, and of a good size for the species. A Canadian classic, very rare on the market. Indeed, as the description states, it is quite unusual to find specimens of Cubanite on the market, a copper and iron sulphide with its type locality in Barracanao, Cuba. It can be confused with Chalcopyrite, although Cubanite has greater magnetism. A very remarkable specimen and a pleasant surprise to find.



Lévyne. Moonen Bay, Duirinish, Isle of Skye, Inner Hebrides, Scotland, UK. Specimen size:  $3.5 \times 2.9 \times 2.5$  cm. Main crystal:  $0.4 \times 0.1$  cm. Very sharp lamellar crystals of Lévyne, a zeolite that is rare in wellshaped crystals, as in this case. The Lévyne has crystallized in the vacuoles of a rock matrix. There are two end-members, calcium or sodium, depending on the proportion of one or the other element.



Pyrargyrite with Calcite. Příbram, Central Bohemian Region, Bohemia, Czech Republic. Specimen size: 5.7 x 4.6 x 2.7 cm. Main crystal: 0.6 x 0.2 cm. Former Folch collection duplicates. Centered groups of prismatic Pyrargyrite crystals with distinct parallel growths, very sharp crystal forms and excellent terminations. Translucent, on matrix, with rhombohedral Calcite crystals. In the mining district of Příbram, silver was mined first, later lead-zinc deposits and finally uranium ores. Mining ceased in 1991. A total of 308 mineral species have been described from this mining district, 11 of which are type localities. There is a mining museum in the nearby town of Březové Hory.



Heulandite. Sgurr nam Boc, Glen Brittle, Isle of Skye, Inner Hebrides, Scotland, UK. Specimen size: 3.7 x 2.9 x 3 cm. Main crystal: 1 x 0.3 cm. Group of tabular Heulandite crystals with very sharp crystal forms, transparent, lustrous and colorless. The specimen comes from a locality from which specimens are difficult to obtain. Another specimen of the Zeolite Group, like the previous Lévyne.





Bornite pseudomorphs after Chalcocite. Las Cruces mine (phase 6, levels 130-135,  $\downarrow$  175 meters), Gerena-Guillena-Salteras, Sierra Norte Region, Seville, Andalusia, Spain (01/2020). Specimen size: 2.5 x 1.8 x 2.6 cm. Main crystal: 1.6 x 1.6 cm. Bluish bornite as pseudomorphs after twinned Chalcocite crystals. This specimen comes from the last find before the definitive closure of open-pit mining at this mine and shows for the first time for this locality Bornite in collection-quality specimens. These specimens have been analyzed.



Sainte Marie is minerals and much more ... to give just one example.



## Conclusions:

And here so far what I considered to be the most interesting things in this show, enlivened with some of the photos that Fabre Minerals provided to give a more "real" atmosphere to the show, both for those who have been there at some time and for those who have never been but who hopefully will be able to go soon, with the pandemic lost on the horizon.

As has already been emphasized in the text on several occasions, this show and this particular virtual edition have done nothing more than elevate the country of Morocco as the king of novelties, many of them important and of a certain class.

Regarding this virtual edition, the second for Sainte Marie, we recognize substantial changes from the first one, which was also the first virtual edition of the entire circuit (Sainte Marie-Munich-Barcelona-Tucson), both in the number of pieces offered as well as in the quality of the specimens and, above all, in something that has really advanced the sale of minerals via the web, with many videos of the pieces. It seems that we are no longer satisfied only with good photos but we tend to demand videos of the pieces. Seeing a photo or a video does not differ much to me in particular, as long as the photo emphasizes what is really interesting, and that Jordi has clearly accomplished. However, I understand that many other people prefer to see a video, because of the three dimensions and to get a better idea of what a piece is really like. So welcome the improvements, and congratulations to Fabre Minerals for the continuous effort to better their service.

I hope and wish you had a good time reading these lines, and am hoping to see you in person at the next edition of the Sainte-Marie-aux-Mines show in Alsace, its rightful place!

Finally, I would like to thank Antonio P. López for his careful revision of the text and to Alfredo for translate from the spanish version.