PNWFM

Inside this issue:

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President's Message
Toby Seim

Greetings All,

I hope everyone is of good health and actively planning your mineral adventures/activities as Spring approaches. With the Covid-19 pandemic slowly fading away, planned activities and mineral related projects will increase.

I have recently been conversing with Mark Ivan Jacobson (The National FM Board President) to align our future Friends of Mineralogy vision and with some key FM National organizational changes, there is some excitement buzzing. There is also a new Virginia Chapter whose president is very eager to make an impact. With our PNWFM Group being well established and the Virginia's Chapter bringing new fresh ideas to the plate, its an easy decision to work together and share our processes/ideas to further improve the advancement of minerals. - Special thanks to Jessica Robertson for bringing both Chapters together and coordinating.

We have discussed an idea to improve our PNWFM Logo. At this time I have a panel of artists lined up who are very talented and ready to start drafting something. What I need from you, our members, is some creative ideas to get the ball rolling. I believe this logo should come from the voice of our members which will mean more when selected. If you would like to help to provide input please submit your ideas to pnwgemcollectors@gmail.com for consideration.

Please plan to attend a General Meeting **Saturday, April 10th at 10:00AM**. This meeting will be in Zoom format where we will communicate general updates, symposium status and some exciting summer opportunities such as potential field trips and a Washington Pass Clean-up. Stay tuned for the official Zoom link to be communicated.

Thanks to you all for continuing to share a big interest in rocks & minerals and once this Covid-19 pandemic is obliterated, I'm excited to be able to personally give each of you a joyous high-five.

Cheers,

Toby Seim – President - PNWFM

Pacific Northwest Chapter of Friends of Mineralogy Releases Their 2020 Fall Symposium Talks Online

Aesthetic Minerals: Color and Crystallography was the theme of the Pacific Northwest Chapter of the Friends of Mineralogy symposium held on October 17, 2020. Due to travel restrictions related to the coronavirus, the PNWFM decided to hold its annual symposium virtually instead of cancelling it altogether. Through a combination of live streaming and pre-recorded presentations, the PNWFM was able to put together a highly successful Fall Symposium and is now sharing these presentations with everyone online.

The symposium introduction and first presentation by mineral photographer Michael Bainbridge are already online.

Introduction: http://Mineralfilms.com/PNWFM_2020-Intro

Michael Bainbridge, Aesthetics in Mineral Photography: http://Mineralfilms.com/PNWFM_2020-Part1

Follow the PNW chapter on their Facebook page (https://www.facebook.com/PNWFM) or check their website (PNWFM.org) to get the links. Here are the release dates and topics of the remaining symposium talks:

Friday, February 26, 2021

Ray Hill

The Good, the Bad, and the Beautiful: a story of transformation

Friday, March 5, 2021

Dr. Raquel Alonso-Perez - Harvard University

Emerald and Gemstone Formation during Continental Growth Episodes

Friday, March 12, 2021

Tama Higuchi

Minerals through the Lens of Art

Friday, March 19, 2021

Dr. George Rossman - CalTech

Natural Radiation - A Tale of Two Minerals

With special thanks to Symposium Chair Jessica Robertson, Bruce Kelley and Show Host Julian Gray.

We hope that you can tune in and catch each and every episode. We look forward to the PNWFM's 2021 Symposium: African Minerals!!

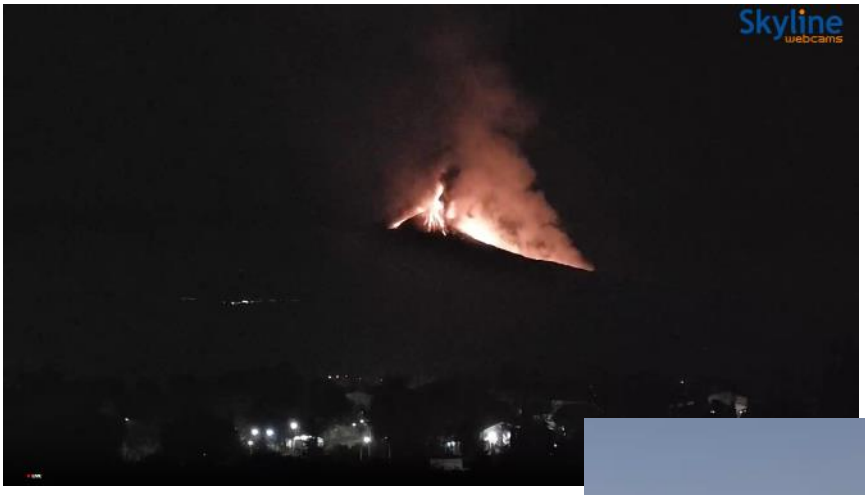
Passing the Love of Rocks On to Our Youth

By Karen Hinderman

As a teacher I'm in a position to pass on my love of rocks and minerals to my students. In fact, I do this as often as my students will tolerate it! One way I do this is by having rocks in my classroom for students to look at and play with. Generally speaking, I don't get too upset when rocks go missing. Amazingly, it doesn't happen often! When a student really shows interest, I bring in more rocks for them to look at and then let them take home a few. I've given many rocks and minerals to science teachers and taught several mini lessons in science teachers' classrooms. A few years ago I started teaching a Basic Science class to high school students with learning disabilities. Of course, we always have a geology unit that includes studying rocks and minerals. My enthusiasm about rocks and minerals is usually looked at as strange by most of my students, but there are always a few who show real interest.

In September, a teacher who has small children, asked about tumbling rocks. She and her husband were looking at buying one of those small tumblers for their 5 year old as a birthday present. Instead, we loaned them a tumbler, gave them rocks to tumble, and provided all the grit needed to properly tumble one load. The joy that her husband, son, and daughter received from this experience was tremendous. I just may have created future rock hounds and/or mineral enthusiast!

Find moments when you can pass on your love of rocks and/or minerals to our youth. It's very rewarding.

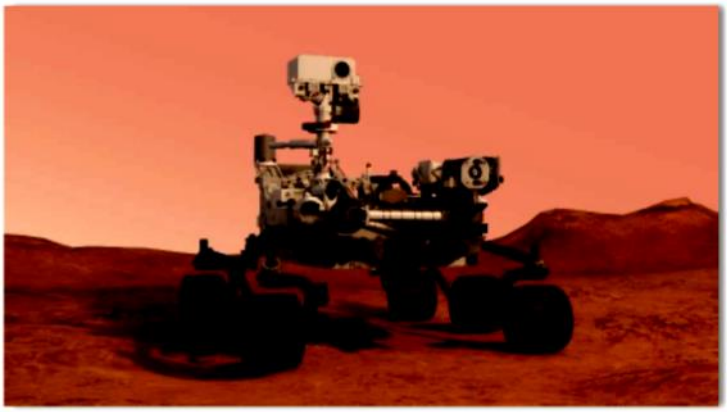


Recent Screen Shots of Etna (Sicily)
by Beth Heesacker from the Skyline live feed.

Collecting Martian Soil & Rocks

by Ken Rock, MSDC Editor

As most of us know, the NASA Perseverance rover landed safely on Mars on February 18 after a journey of nearly 300 million miles. The successful deployment of the rover via "sky crane" has got to be one of the most impressive demonstrations of robotics ever. Equally impressive, in my opinion, are plans for the Perseverance to drill into Marian soil and rocks using a number of drills to collect core samples and place them in tubes in a process called "sample caching."



Somewhere between 30 and 43 samples will be collected, placed in tubes, hermetically sealed, and stored in the belly of the rover. Strict cleanliness requirements have been established to avoid contaminating the samples with any materials originating on earth.

At a later time, the samples will be deposited on the Martian surface at one or more locations to be designated as a "sample cache depot." These tubes would be left on the Martian surface for retrieval by a subsequent Mars mission, probably no earlier than 2031. As you might expect, detailed maps using local landmarks and precise coordinates from orbital measurements will be provided so that any future mission to Mars and can pick up these samples for study back on earth.

At present, martian meteorites are the only direct samples from Mars. Currently, there are a total of 262 individual samples originating from at least 11 ejection events. The number of samples has almost doubled over the past six years, affording an opportunity to study these meteorites as suites of igneous rocks. Geochemical analyses, using techniques that also are used on terrestrial rocks, provide fundamental insights into geological processes that have occurred on Mars. Martian meteorites display a wide range in mineralogy and chemistry, but are predominantly basaltic in composition. However, the geology of Mars cannot be unraveled solely by analyzing these meteorites.

Rocks analyzed by rovers on the surface of Mars reveal a composition that is different from that of meteorites from Mars. The Mars 2020 mission plans to collect older samples directly from the Jezero crater on Mars's surface, for eventual return to Earth. The study of both meteorites and returned samples is essential to gain a full understanding of the interior composition, evolution, and geological characteristics of different locations on Mars. These facts highlight the importance of Mars missions, especially the return of samples from the red planet.

Terminology Refresher

Asteroid: A big (>1 meter) rock or aggregation of rocks orbiting the sun

Meteoroid: A small (<1 meter) rock orbiting the sun

Meteor: The visible light that occurs when a meteoroid passes through the Earth's atmosphere

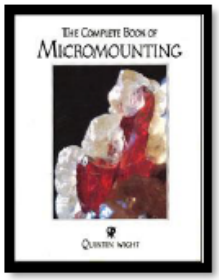
Meteorite: A rock found on Earth that was once a meteoroid.

You may view a 3-D model of the Perseverance here. You can download a more detailed version of the model, as well, from this NASA website. NASA also periodically updates its website with news and updates from Mars. (Check it out!)

Information about Martian meteorites is being used, with the author's permission, from an article, "What Martian Meteorites Reveal About the Interior and Surface of Mars," by A. Udry et al., published in JGR Planets, 20 November 2020. An abstract and summary is available here.

Worldwide Micromounting Societies

by Kathy Hrechka, assisted by Col. Quintin Wight



Canadians Col. Quintin and Willow Wight presented their Russian geology journey on October 28 for the MNCA meeting through Zoom. Kathy promoted Quintin's Complete Book of Micromounting, which was published in 1993. Quintin researched each micromineral association around the world, which are listed below. While we may have a unique niche studying tiny minerals, notice the large global presence of micromomineral collectors. Quintin also regularly submits articles and photos pertaining to micromounting for Rocks and Minerals magazine, Taylor & Francis Group, LLC.

AMI • Associazione Micro-mineralogica Italiana: Marco Ciriotti, Via Gioconda, 3 – I-26100 Cremona, **Italy.** micro.redazione@alpimedia.it, www.amiminerals.org.

Arthur M. Roe Memorial Micromount Symposium: Mark Ascher, 3446 N Calle Largo, Tucson AZ 85750.

L'Association Française de Microminéralogie: Robert Pecorini, 9 Allée des Chênes Verts, 13620 Carry-le-Rouet, France. <www.micromineral.org>

L'Association des Micromonteurs de Minéraux de Montigny-le-Tilleul: Michel Croisez <michel.croisez@skynet.be>.

Baltimore Mineral Society: Mike Seeds, 516 Bald Eagle Ct., Lancaster, PA 17603. <mike.seeds@fandm.edu>.

British Micromount Society: David Binns, 3 The Dene, Hastings, East Sussex. TN35 4PD United Kingdom. <dgbinns@btinternet.com>.

Canadian Micro Mineral Association: Frank Ruehlicke, Tel: (519) 880-2716. <ruehlicke@rogers.com>.

Gruppo Mineralogico Cremonese: Pier Del Monaco, <pier.delmonaco@libero.it>.

International Federation of Micromount Societies: Tim Rose, 6371 Rubicon Way, Livermore CA 94550.

Leidy Microscopical Society Micromount Show: Don McAlarnen<donmcalarnen@outlook.com>.

Microcentro Scandicci: Gruppo A.V.I.S. Mineralogia Paleontologia Scandicci, Piazza Vittorio 1, 50010 Badia a Settimo Scandicci F1 Italy. <www.gamps.it>

Micro-Mineral Collectors of New Zealand: Jocelyn Thornton, 99 Quebec St., Wellington 6023, New Zealand.

Micromineralogists of the National Capital Area: Kathy Hrechka, 7201 Ludwood Court, Alexandria, Virginia 22306. <kshrechka@msn.com>.

Micromineral Society of the Cleveland Museum of Natural History: Anne Cook, 684 Quillams Rd., Cleveland Heights, OH 44121.

Micromounters of New England: Bob Wilken, 79 Meadow Lane, Campton, NH 03223. microxl@mfire.com

Micromounters of New South Wales, Australia: Noel Kennon, annoelk@gmail.com

Mineralogical Society of Southern California (MSSC) (Formerly Southern California Micro-Mineralogists): Dr. Robert Housley, 255 S. Wilson Ave. #2, Pasadena CA 91106 rhousley@cco.caltech.edu.

Munich Micromounter Group: Dr. Manfred Seitz, Lohäcker str. 1, D-85551, Kirchheim, Germany.

New Jersey Mineralogical Society Russel N. Brarens, 515 Lincoln Blvd., Middlesex, NJ 08846-2442.

Northern California Mineralogical Association: Theresa Kokinos, theresa10@directcon.net

Northwest Micro Mineral Study Group: Dr. Don Howard, 356 SE 44th Ave., Portland, OR 97215-1007.

Rochester Mineralogical Symposium (Micromounters Playroom): Quintin Wight, qwight@sympatico.ca.

South African Micromount Society: Graham Reeks, PO Box 19, Welobie 1714 South Africa. uniwit@lantic.net

The Ed and Martha Cunningham ACV Winter Gathering of Micromounters: Dowling Park, Florida. Robert Stevens, 2124 Co Rd 002, Auburn, AL, 36879.

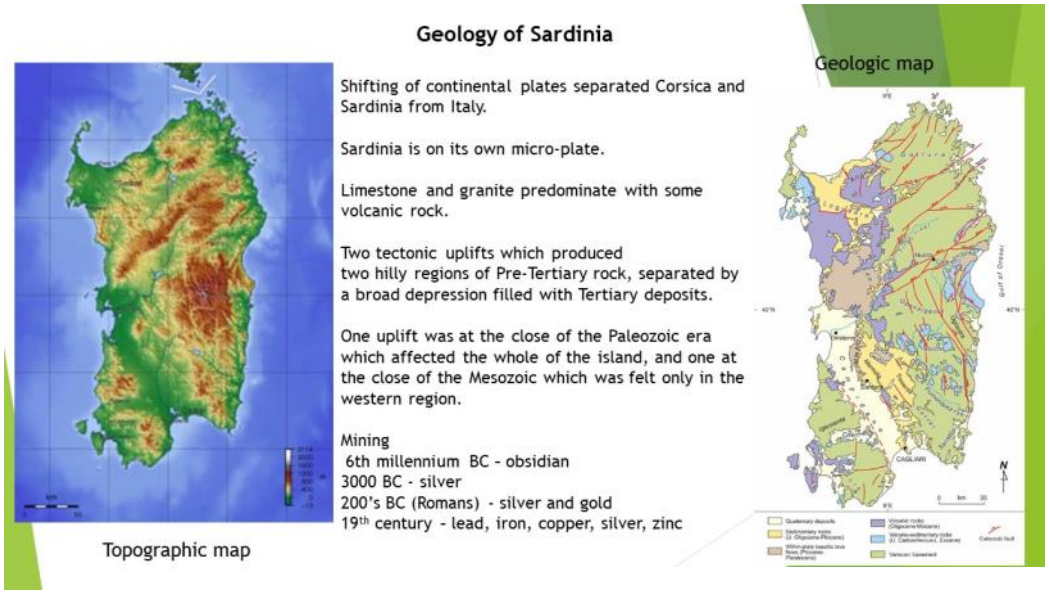
Quintinite $Mg_4Al_{12}CO_3 \cdot 3H_2O$ Mont Saint Hilaire is the co-type locality 1997 - The Canadian Mineralogist.

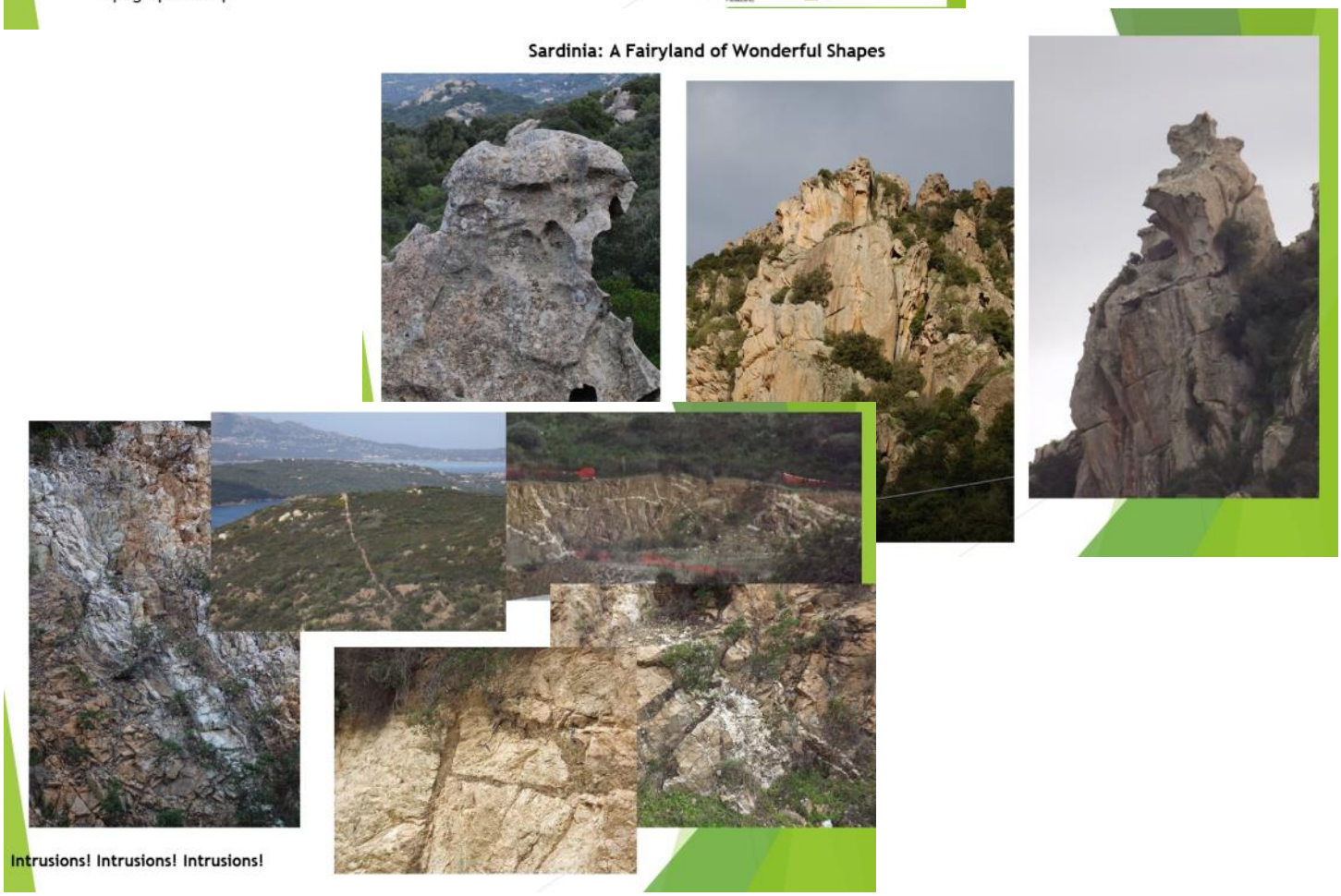
Dakota Matrix photo

Sardinian Minerals from the Lundgren Collection

By Beth Heesacker

I recently gave a presentation to the Micromineralogist's of the National Capital Area (MNCA) on part of the collection I purchased last year previously owned by Allen and Barbara Lundgren. Below are some of the PowerPoint slides from the presentation.





Build with Natural Rock

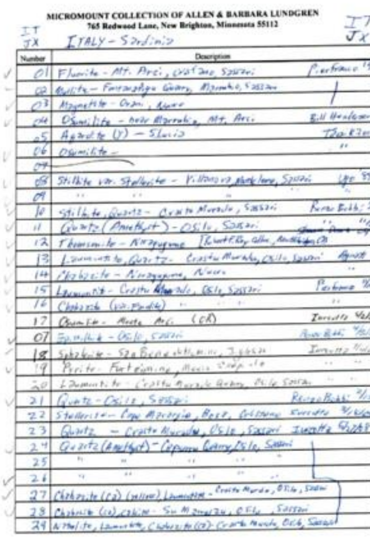
Lundgren's Catalogue – all handwritten, two three-inch binders and one one-inch binder

World-wide collection

Lived in Minnesota

Allen has passed, Barbara (in her 90's, is still alive)

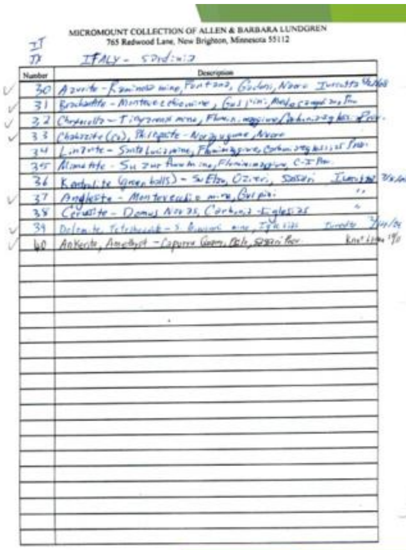
Sold minerals briefly in the early 80's - Alabar Minerals



MICROMOUNT COLLECTION OF ALLEN & BARBARA LUNDGREN
765 Redwood Lane, New Brighton, Minnesota 55112

IT JX ITALY – Sardinia IT JX

Number	Description	
01	Fluorite – Mt. Arci, [illegible], Sassari	[illegible]
02	[illegible] – [illegible] Quarry, [illegible], Sassari	
03	Magnetite – [illegible], Nuoro	
04	Osumilite – near [illegible], Mt. Arci	Bill Henderson
05	Agardite (Y) – Sluvia	[illegible]
06	Osumilite –	"
07		
08	Stilbite var. Stellerite – Villanova, [illegible], Sassari	[illegible] '89
09	" "	
10	Stilbite, Quartz – Crasta Muralo, Sassari	[illegible]
11	Quartz (Amethyst) – Osilo, Sassari	[illegible]
12	Thomsonite – [illegible] [illegible]	
13	Laumontite, Quartz – Crastu Muradu, Osilo, Sassari	[illegible]
14	Chabazite – [illegible], Nuoro	"
15	Laumontite – Crastu Muradu, Osilo, Sassari	[illegible]
16	Chabazite (var. [illegible]) " "	"
17	[illegible] – Monte Arci (CR)	[illegible]
07	[illegible] – Osilo, Sassari	[illegible]
18	[illegible] – [illegible]	[illegible]
19	Pyrite – [illegible]	" "
20	[illegible] – Crastu Muradu Quarry, Osilo, Sassari	" "
21	Quartz – Osilo, Sassari	[illegible]
22	Stellerite – Capo Marargiu, Bosa, [illegible]	[illegible]
23	Quartz – Crasta Muradu, Osilo, Sassari	[illegible]
24	Quartz (Amethyst) – Capurru Quarry, Osilo, Sassari	
25	" " " "	
26	" " " "	
27	Chabazite (Ca) (yellow), Laumontite – Crasta Muradu, Osilo, Sassari	
28	Chabazite (Ca), calcite – [illegible], Osilo, Sassari	
29	[illegible], Laumontite, Chabazite (Ca) – Crasta Muradu, Osilo, Sassari	



MICROMOUNT COLLECTION OF ALLEN & BARBARA LUNDGREN
765 Redwood Lane, New Brighton, Minnesota 55112

IT JX ITALY – Sardinia

Number	Description	
30	Azurite – [illegible] mine, [illegible], Nuoro	[illegible]
31	Brochantite – [illegible] mine, [illegible]	
32	Chrysocolla – [illegible] mine, [illegible]	
33	Chabazite (Ca), Phillipsite – [illegible], Nuoro	
34	Linarite – Santa Lucia mine, [illegible]	
35	[illegible] – [illegible]	
36	[illegible] (green balls) – [illegible], Ozieri, Sassari	[illegible]
37	Anglesite – Montevecchio mine, [illegible]	"
38	Cerussite – Domus Novas, Carbonia-Iglesias	"
39	Dolomite, Tetrahedrite – [illegible] mine, [illegible]	[illegible]
40	Ankerite, Amethyst – Capurru Quarry, Osilo, Sassari Prov.	[illegible]

ANKERITE

Capurru Quarry,
Sassari Province,
Sardinia, Italy

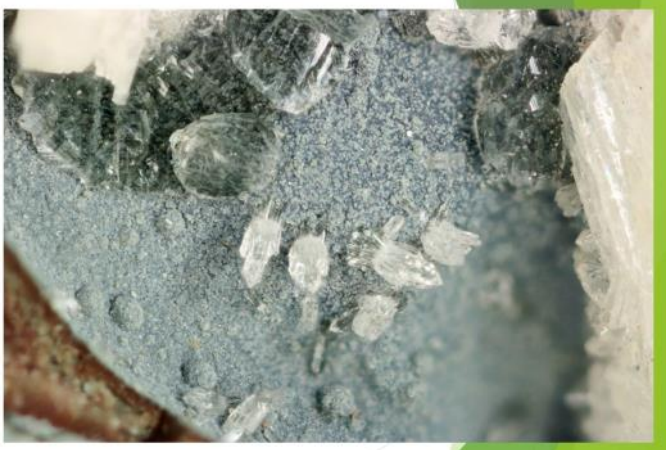
IT JX 40a fov 3 mm

LAUMONTITE

Crastu Muradu Quarry,
Sassari Province,
Sardinia, Italy

CHABAZITE,
LAUMONTITE

Crastu Muradu Quarry,
Sassari Province,
Sardinia, Italy



FLUORITE

Mt. Arci, Oristano
Province,
Sardinia, Italy

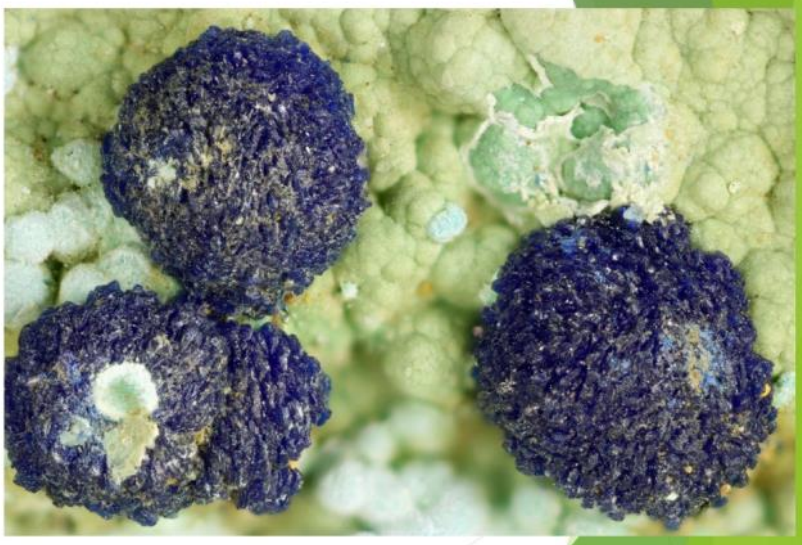
MULLITE

Mt. Arci, Oristano
Province, Sardinia, Italy

IT JA 38 fov 4.5 mm

AZURITE

Funtana Raminosa Mine,
Nuoro Province,
Sardinia, Italy



IT JX 30 fov 4.5 mm

CHABAZITE,
PHILLIPSITE

Noragugume, Nuoro
Province,
Sardinia, Italy

IT JX 33 fov 4.5 mm

ANALCIME

Monastir, Cagliari
Province, Sardinia, Italy

IT JA 23 fov 4.5mm

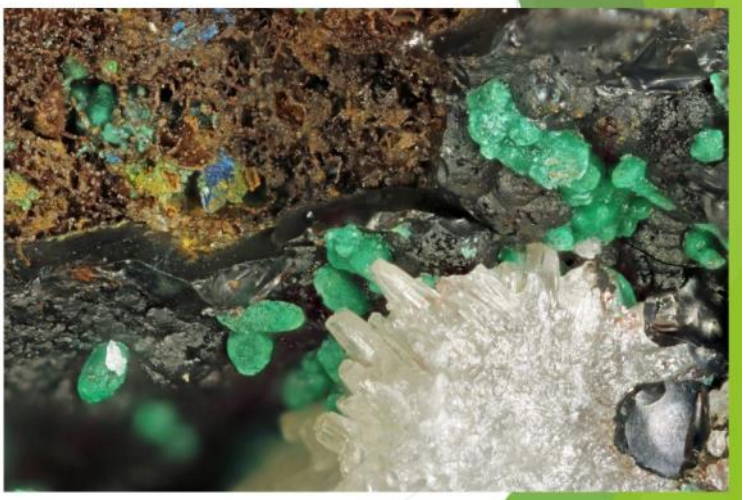
FERRIERITE

Monastir, Cagliari
Province, Sardinia, Italy

IT JA 33 fov 4.5 mm

MALACHITE
CERUSSITE

Orroli, South Sardinia
Province, Sardinia, Italy



IT JA 21a fov 4.5mm

BROCHANTITE

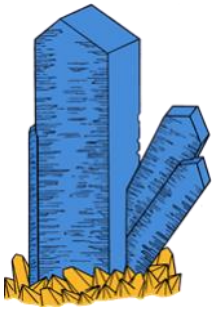
Montevecchio Mine, South
Sardinia Provence,
Sardinia, Italy

Editor's Plea

Please, we need your articles and mineral photos to make this the newsletter what it should be.

Please email articles and photos to heesacker@coho.net

The next deadline will be June 2nd.



Interested in a wonderful resource for teaching children about minerals?

Check out the books and other resources at Diamond Dan Publications.

http://www.diamonddanpublications.net/

PACIFIC NORTHWEST CHAPTER FRIENDS OF MINERALOGY

www.PNWFM.org
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MINERAL MEETING CALENDAR

2021:

Seattle Mineral Market
May 22-23, 2021
The Hangar 30 building at Magnuson Park
Seattle, WA

MSSC Conference - Cancelled

NW Micro Mineral Study Group - TBD

NCMA Symposium - TBD

PNWFM Symposium - Zoom - African Minerals

Stay Safe and Healthy!