



MWF News

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of Mineralogical and Geological Societies

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PRESIDENT'S MESSAGE

Susan Stanforth, MWF President

ENTHUSIASM – is it catching? I'm hoping all MWF members will avoid COVID-19 but gladly welcome an infection of enthusiasm and excitement for rock club activities.

So, let's do a pep talk. The MWF community (yes, that's YOU) could be reaching out and getting involved in many many competitions that your Federation has to offer.



See the notice below about this year's Bulletin Editor's Contest, and the article on this page about the MWF Website Contest! Believe me,

(Continued on page 3)

LAST CALL FOR ENTRIES!

Entries to the MWF Bulletin Editors' Contest must be emailed or postmarked by Jan. 31st. See Deadline Calendar, p. 3, for more information.

WEBSITE CONTEST DEADLINE EXTENDED

Brad Zylman, MWF Website Contest Chair

Please enter the MWF 2021 Website contest!

Extended Deadline February 24, 2021

This contest is open to all MWF clubs in good standing. Participating in the contest helps each club improve its website through bench-marking and competition. Each club can only enter once. Due to unforeseen problems, **if you have already entered this year's contest, please re-submit your entry.**

At this writing, the contest forms on the MWF website page are outdated, but entrants can find updated contest forms on the AFMS 2021 Website Contest page, http://www.amfed.org/web/website_contest.htm. In addition to the entry form, there are a score sheet and score sheet guidelines that explain what the contest judges are looking for in a website.

The top two MWF website contestants will be entered into the AFMS national contest in March. Please have your club's webmaster contact me at brad.zylman@mrm.com with any questions.

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REBELS OF THE MINERAL WORLD

Daniel Hogan,
Three Rivers Gem & Mineral Society (IN)
From the November, 2020 Strata Data

When someone joins a rock club, it can be for many different reasons.

- Some people may have a passion for geology and mineralogy. So, they have an understanding of how minerals are created and can see and appreciate the beauty of how nature can create something so wonderful. They enjoy the adventure of searching out these specimens and finding rare and beautiful things.

- Others may have a passion for paleontology, finding joy in looking for fossils and finding evidence of life that existed millions of years ago. They are excited by discovering that little snapshot in their hand that tells such an intriguing story of the history of life on our planet.

- Metaphysical characteristics draw people, too. Such people draw comfort and happiness when they possess something that means so much to them. They have so much fun getting together and sharing what they have found. This aspect has a substantial following and should never be discounted.

Then there are the lapidary artists - the rebels of the mineral world. They just can't leave well enough alone. That's because what most will see as a perfect specimen, they see as a possibility.

Originally, people saw beautifully eroded and polished rocks along a shoreline. The rocks had been beautifully tumbled by the waters and given somewhat of a polish. Then someone took those rocks and polished them even more, revealing an even more beautiful luster.

The rocks appeared so beautiful that people started trading them and, after time, began to use them as currency. These stones were then crafted into necklaces, bracelets and other adornments to make it easier to carry the "money." The more elaborate the jewelry, the wealthier that person was perceived to be.

Stones of rarity were then cut and polished. Later on, artists started faceting them, revealing new wondrous designs and beauty that could only come from stones of the finest quality. These were placed in a

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setting of precious metal to create crowns, royal rings, hairpins, eggs, sculptures, and so many other things to be displayed to show an individual's wealth.

To begin with, the rock doesn't look like much. Even a diamond looks like a chunk of salt. That all changes after that first cut, when the artist can look inside and see the pure unadulterated beauty that is revealed.

Lapidary artists know and understand the qualities of their rocks. The properties like hardness, crystal structure, brittleness, and fracture all come into play to get the most out of the stone. We cut it into pieces and study each slab, trying to find that perfect gemstone. What is the shape to be? How big? What is the orientation going to be?

Once those questions are answered, the lapidary artist proceeds. Like stones tumbled in a river, we are eroding away the stone to reveal something wondrous. The difference is that we are speeding up the erosion process. We control how the stone is being shaped. We can take the polish to levels that do not occur in nature.

We can sculpt the stone, facet the stone, carve the stone, etch the stone, and engrave the stone. We can laminate, composite, tumble, nap, polish, and even sandblast it. For we are artists. That is what we do, making nature's beauty into something to wear, something to display and something to cherish. It is a passion for the beauty of nature as much as any other aspect of your rock club.

Maybe you see more in your rocks than what appears? Then you may have that passion too.

PRESIDENT'S MESSAGE, CONTINUED

(Continued from page 1)

whatever contest interests you, the chairs are more than happy to encourage you to enter.

PROGRAM COMPETITION is one of the most exciting contests. Ask your “grands” to help you with video recording and PowerPoint. If a six-year-old can do it, so can you.

Speaking of technology, I've noticed how nervous people are about joining Zoom meetings. Seriously, I wouldn't lie to you, it's SO easy. And it's just so heart-warming to see our rock buddies again, practically in person.

Going old school, check out our MWF program library for “how-to-do” DVDs. The list of programs is in the MWF Directory (gold pages) and on the website. I found beginning intarsia, wire-wrapping lessons and even “Cindy's Cuttlebone Casting.” This library is “powered” by Robert Powers (get it?). You can send him an email at akronmineralnews@aol.com or call him at 440-237-6170. You will never meet a kinder, more helpful guy than Bob.

And don't forget to contact me with any concerns or suggestions. I will get back to you within 24 hours, I promise. Write sstanforth123@yahoo.com, call 815-229-4009, or text 815-980-7498.

DEADLINE CALENDAR

Entries for the **MWF Bulletin Editors' Competition** are due **January 31, 2021**. For more information, contact Bulletin Editors' Chair Sharon Marburger at mamamar7880@outlook.com.

Entries for the **MWF Website Contest** are due **February 24, 2021**. See the article on page 1 in this issue; for more information, contact the Website Contest Chair, Brad Zylman, at brad.zylman@mrm.com.

Entries for the **National Youth Poster Contest** sponsored by the North Lakes Academy Rockhounds (Minnesota) are due **May 1, 2021**. See the article on page 4 of this issue; for more information, contact Michelle Cauley at mcauley@northlakesacademy.org.

IN MEMORIAM TONY KAPTA

Donna Moore, MWF Secretary
Regina Kapta

If you have been to an MWF meeting or convention in the past several years, you probably met Tony Kapta. He was the credentials chairman who checked everyone in at meetings and made sure we had enough qualified people in attendance to have a quorum, so that the business conducted at our meetings was legal according to the MWF By-Laws.

Tony passed away on January 7, 2021, at his home in Decatur, Illinois. He had been in poor health for some time. He is survived by his wife, Regina Kapta (chair of the MWF Public Image and Courtesy Committee), three brothers and a sister.



*Photo by
Regina Kapta.*

Tony was a precision machinist and worked in the family machine shop, eventually assuming ownership until he retired due to disability. His special talent was successfully designing and crafting solutions to make things work. He had many passionate interests and was self-taught in physics, chemistry, geology and philosophy. Tony was an avid hunter and fisherman for most of his life.

He was an enthusiastic rockhound and 15-year member of the Central Illinois Gem and Mineral Club. He served as CIGMC President for the past nine years, and organized the club's annual Gem & Mineral Show in Decatur. Tony was a member of the Lincoln Orbit Earth Science Society rock club, a board member of the Geodeland Earth Science Clubs, Inc. rock group, and past president of the MWF (2013-14).

Cards and letters may be sent to Regina Kapta at 1483 E. Wood Street, Decatur, Illinois 62521.



NATIONAL YOUTH POSTER CONTEST INVITES ENTRIES FROM JUNIOR ROCK AND MINERAL FANS

Michelle Cauley, President,
North Lakes Academy Rockhounds (MN)
& Jim Brace-Thompson, AFMS Junior Programs Chair

Calling all artists! The North Lakes Academy Rockhounds of the MWF is hosting a **National Youth Poster Contest**.

It is open to any kids in 1st through 8th grade across all seven AFMS regional federations and beyond. The theme is "Rockin' Around the USA."

Participating kids should pick a rock or mineral found in the USA that they are passionate about, create a poster about it, and provide a brief explanation of why they like that particular rock so much.

OR they can pick a location in the USA where they LOVE to go rockhounding and craft a poster around that while providing a brief write-up about where it is, what they have found, and why others should go there.

Posters will be judged by grade level, with ribbons and prizes awarded for 1st through 5th place in each grade. Overall Champions will also be selected and will receive a prize.

Here are the rules:

1. All entries must be presented on 12" x 18" paper.
2. Include name, address, and school grade of participant on BACK of the poster.
3. A title should be on the FRONT of the poster.
4. Artwork can be done by pen, ink, crayons, magic markers, paint, print, photography or any other artist's medium, but no three dimensional posters will be accepted.
5. Posters cannot be returned.
6. Posters postmarked after the deadline will not be accepted. (Please allow a week for mailing.)

7. All entries become property of the North Lakes Academy Rockhounds and AFMS.

Judges will award points as follows: 30 points for originality and artwork; 10 points for title (including theme organization, design, spelling, grammar); and 20 points for background information, facts, and details provided.

Posters and accompanying background info should be sent to **Michelle Cauley, c/o North Lakes Academy Rockhounds, 4576 232nd Street North, Forest Lake, Minnesota 55025**. Entries must be postmarked by **May 1, 2021**.

Direct any questions to Michelle by email at mcauley@northlakesacademy.org, and see further contest information on the AFMS website at <http://www.amfed.org/kids.htm>.

Please help spread the word to your local clubs, to junior activity leaders, and to the kids themselves!

FORMER PRESIDENT TURNS POET

OLD MWF MEMBER

By James T. Edwards,
MWF Past President (1984-85)

It's been a while since I looked for rocks
I did get up to visit the Soo Locks
I live in North Carolina now
Moved way down here don't know how
Weather's good specially in spring and fall
Haven't missed working at all
I appreciate the MWF News
Especially since I don't pay dues
I still have my collection
Of agates, copper and mineral specimens
I've been in NC now 25 years
Not much here on the coast I fear
But lots of shells, sharks' teeth and such
I haven't really looked that much
Sorry for the problems the Virus caused for shows
Maybe this year – who knows
With the vaccine coming on line
Hopefully everything will be fine
I miss all my MWF friends
I hope this little ditty will make amends

THE SCIENCE, LORE AND LEGEND OF GARNET — ALL SEVENTEEN TYPES

Olivia Long, Junior Member
 Indian Mounds Rock & Mineral Club (MI)
 From the club's January 2021 Arrowhead News

Since it is January, I wanted to share with you all one of my favorite topics, the January birthstone, the versatile garnet! Garnet is the name for a group of silicate minerals that share a common crystal structure.

There are six common species of garnet. **Almandine** is iron aluminum silicate, and is a deep red in color, though sometimes it has a violet tint. **Pyrope** is magnesium aluminum silicate. This garnet is typically red with a brownish tint. **Spessartite** is magnesium aluminum silicate, and is normally a mandarin orange to an orange-red in color.

The **Grossularite** is a group of a few kinds of garnets and is a calcium aluminum silicate. This group's colors can vary, from the opaque jade green hydrogrossular, to the cinnamon hessonite, to clear and colorless leuco, to the second most valuable garnet, the bright emerald green tsavorite. The next species is **Uvarovite**. This garnet is calcium chromium silicate,

and is typically emerald green, though is rarely found in gemstone quality.

The last of the six species is the group **Andradite**. This group is calcium iron silicate and contains the opaque black melanite, the yellow to lemon yellow topazolite, and finally, the amazing emerald green demantoid garnet. This particular garnet is the most valuable of the garnets due to its incredible luster and dispersion. Though there are only six groups of garnet silicates, there are in fact seventeen types of garnets.

The name garnet comes from the Latin word "granatus," which translates to "seed," because of the similarities between the red garnet to the pomegranate seed. So next time you have a garnet nearby, and are eating a pomegranate, take a look at them both side by side, and you'll see the same similarities that the ancients saw. The garnet has also been a symbol of bringing back parted lovers because of the legend of Hades and Persephone.

(Continued on page 6)



From the Indian Mounds Rock & Mineral Club (MI)
 Arrowhead News, October 2020

Indian Mounds Rock & Mineral Club juniors who take part in the AFMS Future Rockhounds of America program received their badges and certificates at a recent meeting. *Front row:* **River** and **Hope** received Pebble Pup badges for Fossils; **Brinley** became an official Future Rockhounds of America member. *Back Row:* **Te'a** received badges in the categories of Fossils and Reaching Across Generations; **Cade** got a badge for the Earth in Space category; and **Abby**, **Ana**, and **Elena** all received Fossils badges.

THE SCIENCE, LORE, AND LEGEND OF GARNET, CONTINUED

(Continued from page 5)

Persephone was a Greek goddess and was the daughter of Demeter, the goddess of agriculture, and Zeus, the king of all the gods. One day while Persephone was singing on the bank of a river, the god of the underworld, Hades, saw her and decided he wanted her as his wife and queen. So, he brought her to the underworld and did so. When Demeter heard this, she was furious and asked Zeus to bring their daughter back. Zeus sent for her by the messenger god Hermes.

Meanwhile in the underworld, Hades knew Zeus would take Persephone away, so he gave her a pomegranate. For if someone eats of the fruit of the underworld they have to stay there. Persephone consented to her husband's wish and ate four pomegranate seeds. Zeus found out about this when Persephone was returned, and told her she had to stay with her husband for four months of the year.



Photo by Robert Lavinsky of irocks.com, who wrote that this "is an exquisite pair of highly modified Demantoid Garnets that mirror each other and grow around a small core of tiny Demantoids." Photo via Wikimedia Commons.

Now, because of that legend, the pomegranate, or rather, garnet, has been used as tokens between friends on journeys so they will meet again. Garnets are also thought to be helpful for renewing love between spouses and broken friends.

Garnets have been used in jewelry for thousands of years. Garnet necklaces have been found in tombs from as early as 3000 BCE, which also proves the durability of the stone. Because of its deep red color, garnet was thought to cure ailments of the body

and mind, especially that of depression and diseases of the blood. Garnet is also said to stir the heart to great deeds, and brings good fortune to the good and pure of heart, whereas it brings misfortune and disaster to those who wear it while doing evil. It was also said to guard against poison, and lose its sparkle and luster if in the presence of it.

The gem was held in very high esteem in the warrior classes because of the widespread belief that they provided the wearer protection from harm of all kinds. Because of this, kings and warriors would decorate their swords and armor with garnets. Arrows were tipped with, and later bullets were made from, garnets by natives of India, because they believed the garnet would seek out the heart of their prey and inflict particularly bloody wounds on the victim.



Photo by Olivia Long of her own garnet collection.

Because of its hardness (6.5-7.5 Moh's scale), the commonplace use of castaway garnet is in sandpaper. Garnet is used for filtration granules and abrasive powders because of its durability as well, but they are mostly used in high pressure water jets to cutting steel. My favorite use of them is in jewelry.

The almandine garnet is my personal favorite, for its deep red color captured my eyes and heart. I have collected them since I was about ten and love learning about its special legends and myths.

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WINTER'S MYSTERY MINERAL — ITS BEAUTY AND HAZARDS

Michele Yamanaka, Editor
Three Rivers Gem & Mineral Society (IN)
From the January, 2021 Strata Data

There is an amazingly beautiful winter mineral that most people do not recognize. It can be found in other seasons, but it is most easily seen in winter. A winter mineral? YES!!

What exactly is a mineral? To be a mineral, a substance must

- be inorganic (not plant or animal);
- occur naturally;
- be a solid;
- have a consistent, distinctive set of physical characteristics (usually a distinct crystalline form);
- have a composition expressed by a chemical formula.

Let's see if you can guess the identity of the winter mineral.

- It is not made of any plant or animal.
- It appears in nature without human help.
- It is solid.
- Our winter mineral has a distinct crystalline form - it is in the hexagonal crystal system. Individual crystals are very small, but may stick together with others in a hexagonal pattern due to the internal arrangement of atoms. Like all minerals, the ideal shape may vary based on environment, temperature, pressure and time.
- Its chemical composition is H₂O.

“WHAT!?! That is water.” No, it is ICE. It is true that water has the same composition, but it does not have a crystal shape. Only in solid form is H₂O a true mineral.

“So, I am making minerals when I make ice cubes?” NO. Only ice that forms naturally is a mineral. So, the ice cubes in drinks or the “snow” particles made

by machine for skiers are not minerals.

Perhaps you have had to shovel ice off your sidewalk, or have driven on ice (scary!). Is that ice a mineral? You certainly cannot see any crystals in it. Probably not. By the time the slippery stuff you shovel or drive on has formed, the ice crystals will have melted and you just have amorphous (non-crystalline) frozen water.

Let's go back to the amazingly beautiful ice/snow crystal. Snowflakes can be a single ice/snow crystal, but usually they are made of many crystals aligned in a hexagonal pattern. One researcher (Yes, there is a whole branch of science devoted to the study of snowflakes and how they form!) was able to count 200 ice crystals in one snowflake (<https://scied.ucar.edu/learning-zone/storms/snowflakes>).

It is necessary to have a good camera and a macro lens in order to photograph snowflakes before they melt. To learn more about photographing snowflakes and see some lovely examples, go to earthsky.org/earth/how-to-take-photos-of-snowflakes.

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AFMS CONVENTION SCHEDULED FOR JUNE

Cheryl Neary, AFMS 2nd Vice President

It is official! The combined AFMS-Rocky Mountain Federation (RMFMS) convention will be held in Big Piney, Wyoming, **June 17th-20th**.

More information about the joint convention should be out in the next few weeks.

There has been discussion of field trips for petrified wood in the Blue Forest, fish fossils, and other trips (in case you cannot make the field trip being run by Doug True, Chair of the AFMS Inter-Regional Field Trip).

*March Issue Submission Deadline
Is February 3rd!*

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WINTER'S MYSTERY MINERAL — ITS BEAUTY AND HAZARDS, CONTINUED

(Continued from page 7)

How does the mineral “ice/snow” form? An extremely cold drop of water freezes around a particle in the sky. It forms a hexagonal plate or prism. This is the basic ice crystal. As it then falls toward the ground, additional water vapor freezes onto the base crystal and more crystals grow out from the six corners of the hexagon.

The shape of the crystal, whether needle-like, plate-like or anything else, is determined by the temperature and humidity of the air around it as it falls. It will be buffeted by the air many times on its downward journey and each bump may expose the collection of ice crystals to new temperatures and

humidity, causing a variety of crystal shapes (still following the hexagonal pattern) to aggregate. By the time the ice crystal aggregate falls on your glove, it may be a complex and stunning snowflake.

If you would like to watch snowflakes form in a lab environment, go to <http://www.snowcrystals.com/videos/videos.html>.

Of course, not all snow crystals or snowflakes are perfect. This is true of any mineral. But winter gives you the best opportunity to enjoy this spectacular mineral. Instead of “taking time to smell the roses,” take some time this winter to “see the snow crystals.”

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Photo by Wilson Bentley, via Wikimedia Commons.