Wyoming State Mineral & Gem Society, Inc.

Award-Winning WSMGS Website: wsmgs.org

### Volume 2023, Issue # 4



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The WSMGS conducts meetings quarterly and as special events require.

# **Ring in 2024** With New Ideas

By llene Olson Jade State News Editor

A new year is the perfect time for Wyoming rock clubs to take stock of how things are going, to bring in new members and new ideas, and to set goals for the coming year.

For instance:

• Plan programs about rock-related subjects that are of interest to a wide programs. The list is limited only by variety of people.

• Bring in experts in geology, lapidary, faceting, rock hunting or other rock- junior rockhounds (rock pups). related specialties and hobbies. They may be members of your community, or acquaintances from other areas.

• Add some fun to your meeting plans: Play bingo or other games with donated, rock-related prizes; have silent auctions; schedule show-and-tell



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your imagination.

• Promote meetings and activities for

• Schedule rock-hunting and/or educational field trips for your club members.

• Find ways to serve your community that will ignite interest in rocks and invigorate your club.

Whatever you do, have a great year!

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# **Message from the President**



**By Jim Gray** President, WSMGS Vice President, RMFMS

Twenty-twenty-three shaped up to be a good year for Wyoming rock clubs! Turnout for all the rock shows in the state was good:

Cheyenne, Sublette County, Casper, Powell, and Gillette.

The annual Wyoming State Mineralogical and Gem Societies (WMGS) meeting and show took place at Casper this year, hosted by the Natrona County Rock Hounds, who were also celebrating their 75th annual show. We had great attendance.

This was also the location for the annual convention of the Rocky Mountain Federation of Mineralogical Societies, with delegates attending from across the 13 states represented in this region.

At the WSMGS annual meeting, all of the current officers were re-elected: Jim Gray as President; Linda Richendifer as Vice President; Leane Gray as Secretary; Mac Goss as Treasurer; Roger McMannis as Historian; and re-appointed as Jade State News Editor is Ilene Olson, with Nella Flurkey as Assistant.

The officers serve two-year terms, and I hope other people will consider becoming more involved with the WSMGS and consider volunteering to serve in these roles, or offering to assist in the expansion of the existing clubs and creating new ones.

As for the RMFMS convention, the results of the annual elections of officers for the RMFMS are as follows: President – Robert Regner; Vice President – Jim Gray; Secretary – Liz Thomas; Treasurer – Gene Maggard; and Historian – Cinda Kunkler.

I am honored to have been selected to serve as Vice President of the RMFMS and hope to represent the region and Wyoming well. Their 2024 convention will be in Oklahoma City in October.

Billings, Montana, hosted the annual conventions of the American Federation of Mineralogical Societies (AFMS) and the Northwest Federation of Mineralogical Societies (NWFMS). It was a wonderful show and was well attended.

Gem and mineral shows for 2024 in Wyoming are already in the planning stages!

**Cheyenne:** May 11th and 12th (Mother's Day weekend) with setup occurring on the 10th at the Archer Complex

**Powell:** May 30, 31 & June 1. Park County Fairgrounds. Set up is on Wednesday, May 29. This is the WSMGS annual show.

**Sublette County:** June 14th through the 16th (Father's Day weekend) with vendor setup occurring on the 13th at the Sublette County Fairgrounds.

Natrona County: July 13 and 14, Ramkota Motel.

**Northeast WY Rockhounds** are making plans with Cam-Plex.

Please welcome our newest Rock Club into the WSMGS, Converse County Rockhounds, in Douglas, WY.

Please get all the membership forms filled out and returned to the appropriate Officers for the WSMGS and the RMFMS.

On a final note for my first Message from the President, I would like to ask all of the clubs to send me obituary information for members who pass when that happens. I think it is important to honor those who have been a part of our lives and clubs, and by creating an obituary section of the Jade State News our greater community can draw together in respect and remembrance.

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Thank you for helping make this happen!

Until next time, Jim



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# Casper Teen Wins Multiple Awards with Jade and Jewelry Entries

### By Jim Gray WSGMS President

Heaven Goss, a 16-year-old member of the Natrona County Rock Hounds in Casper, was rewarded for her efforts in 4-H Visual Arts and 4-H Natural Sciences categories at the Central Wyoming Fair, held in Casper in July.

In the Visual Arts category, Heaven won a reserve champion ribbon for her handmade jade jewelry and a reserve champion ribbon for her Sweetwater agate jewelry.

Additionally, she won a reserve champion ribbon and belt buckle for her entry of another jade jewelry piece.

Heaven has collected rocks with her father and the Natrona County Rock Hounds since she could walk.

She said she was "really excited with how well my jewelry did at fair."

Heaven also won a reserve champion ribbon for an educational display entered in the Natural Resources category titled "The Genesis of Wyoming Jade."

All four entries were invited to be entered into the Wyoming State Fair, which took place in Douglas from August 14-20. Heaven won purple ribbons for each of her four entries at the State Fair as well.

What are her plans for next year?

"I have decided I will do more and better jewelry next year and not do a pig entry", Heaven said. She said she looks forward to expanding her jewelry-making skills, which she expects to result in fancier jewelry.



Heaven Goss' 4-H entry, "The Genesis of Wyoming Jade," won reserve champion at the 2023 Central Wyoming Fair.



Heaven Goss pictured with her grand champion ribbon from the Central Wyoming Fair and a picture of the belt buckle she received in November. JSN photos by Mac Goss

Her father, Mac Goss of Casper, said, "I am super, super proud of her!" Mac Goss is president of the Natrona County Rock Hounds.

H e a v e n Goss received this belt buckle in November for her awardwinning jade jewelry entry.



# **Involve Youth in Clubs and Activities**

It seems that nearly every child picks up rocks as they explore their world. They bring them home, put them in special boxes or displays, and show them to any family member or friend who seems interested.

Yet, many rock clubs today are struggling as their club members age, move away or find themselves too busy to participate. The answer: Involve the youth! They already know how exciting rocks, minerals and fossils are, and they want to learn more.

Here are some ways to encourage junior rockhounds' interests and talents, and involve them in your clubs.

## Start a Junior Rockhound Program

In 1984, AFMS President Bill Cox added a Junior Clubs committee, coining the name "Future Rockhounds of America."

This continues today, for any AFMS affiliated club offering any type of Juniors activity, even just having Juniors participate in their regular club meetings.

Future Rockhounds of America is all of these:

- Rock Pals Rock Exchange
- Contests, Scholarships, Awards
- Activity Resources for Leaders
- Activities for age 4 17

"Rock club is a highlight of my kids' month!" one mother said. "It is so refreshing to find an extracurricular for my nature-loving children! They love the hands-on geology lessons and meeting friends with similar interests.

"Rock club has grown their love for science and nature and helped connect them more to the world around them."

There is only one requirement for FRA membership: Kids need to be members of an active club with an AFMS affiliation, either by way of a regional federation (in our case, RMFMS) or directly with AFMS.

If you already have an organized Juniors Club, be sure and let AFMS Juniors Committee know: email youth@ amfed.org today!

To learn about starting a junior rockhound program, visit https://www.juniors.amfed.org/starting-a-youthprogram, view https://drive.google.com/file/d/1XXdvNqZ q11ECWApNFWZZ1mnUKZW01me9/view, or email youth@amfed.org.

Source: American Federation of Mineralogical Societies (AFMS).

### 'Calling all Junior Journalists, Writers, Poets, Photographers, and Artists...'

... to submit their work to *Crack the News*, a national newsletter "for kids by kids who love rocks, minerals and fossils."

"Do you want to see your work in print?" the newsletter asks. "We are looking for articles, poems, photographs, and art for the new Juniors Newsletter. The newsletter needs your rockhounding articles, photos, artwork, poetry, and other contributions. There is no deadline for submissions.

"It could be an article about one of your favorite rocks, minerals, or fossils. Perhaps an article with photos of one of your favorite collecting spots.

"Maybe you would like to show off your lapidary jewelry you made. Or, you may have created poetry or artwork about rocks, minerals, or fossils.

"The only requirements are that you must be under 18 years of age and your contribution must be original and related to rockhounding, geology, paleontology, or the lapidary arts," the newsletter states.

Junior rockhounds may submit their work by having their parents complete a submission form and returning it with their work. Written work should be submitted as a word.doc or pdf file, and photography and artwork should be submitted as a .jpg or pdf file.

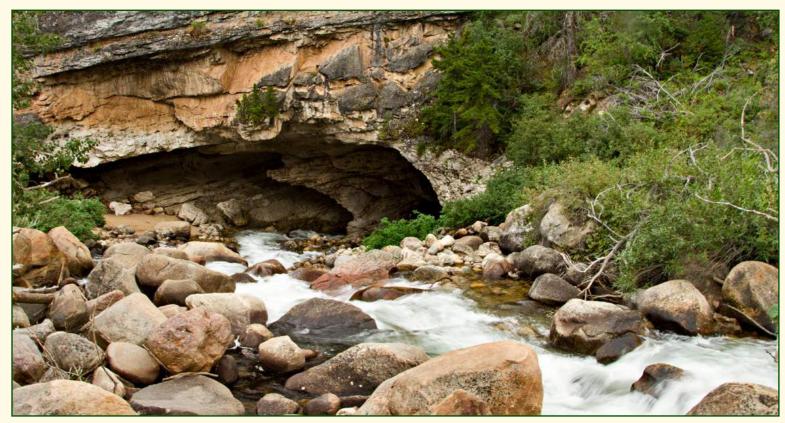
To read Crack the News, visit www.juniors.amfed. org/juniors-newsletter, or https://drive.google.com/file/ d/1b1LRo5U7nl\_lbyoztqjU7itjJuGwJ\_aG/view.

To submit an entry, fill out this form: <u>https://</u> <u>drive.google.com/file/d/1KiCMzmZT82fxuiIT-</u> <u>Ut4gqz9W4zUeXy4/view</u>

*Source: American Federation of Mineralogical Societies (AFMS).* 

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### The Geology of Sinks Canyon State Park A publication of the Wyoming State Geological Survey



The Popo Agie River (pronounced puh-POE-zha) disappears when it flows into a huge cave in Sinks Canyon State Park, re-emerging a quarter-mile downhill at the Rise. The canyon gets its name from this dramatic feature, known as the Sinks. During spring runoff, the river completely fills the cave, and excess water runs around it in an above-ground channel. JSN photo by llene Olson

### INTRODUCTION

Sinks Canyon State Park is nestled on the eastern slope of the Wind River Range near the city of Lander. The park hosts a variety of interesting geologic features, from rock formations 500 to 280 million years old that formed from ancient seas and coastal sand dunes to young glacial deposits. The highlight, however, is "the Sinks," where the Middle Fork of the Popo Agie River disappears into a cavern only to reappear about a half mile down the canyon at "the Rise."

### **GEOLOGIC HISTORY**

#### **Ancient Seas**

Ancient seas covered this area for millions of years and formed many of the rock units exposed in the canyon. The oldest marine bedrock is the about 500-million-year-old Gallatin Formation—a mostly gray to tan limestone with conglomerates of limestone pebbles, plus a soft gray to greenish shale. The Gallatin is visible in the western part of the park low on the valley walls, where it is mostly hidden beneath glacial deposits. Above the Gallatin Formation is the 440-million-year-old Bighorn Dolomite, another marine unit. It is about 160 feet thick, can be white, gray, or pink, and weathers to chalky white. The dolomite forms the lower cliffs in the western portion of the park, and has fossils of corals and other sea creatures.

Higher up the canyon walls is the hard-to-see, 20-footthick Devonian Darby Formation (about 390 million years old). The slope-forming Darby consists of tan crystalline dolomite with lenses of white sandstones. One of the most prominent rock units in the park is the Madison Limestone (345 million years old), which forms the 400-foot cliffs that tower above the heart of Sinks Canyon. The lower part of the Madison is a bluish-gray to gray limestone with cherty layers. The upper part of the Madison is a gray, tan, and yellowish-tan dolomite and limestone, which contains many caves and fractures. Several beds of the Madison

### Sinks Canyon State Park

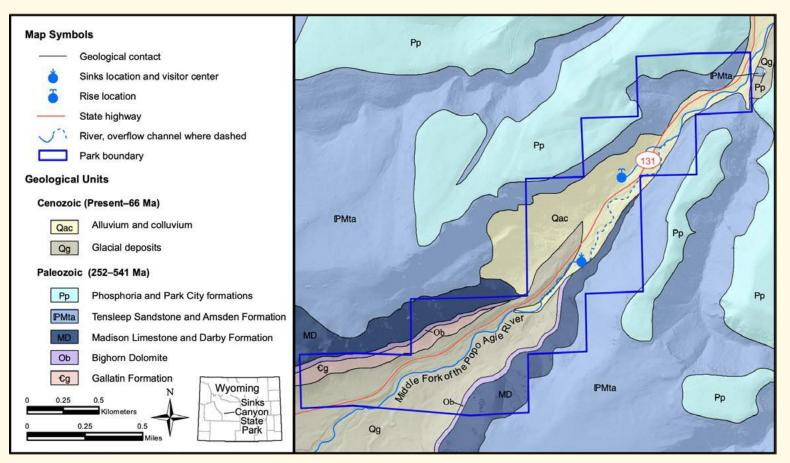
contain fossils, such as brachiopods, that reflect deposition in an ocean environment. Above the Madison Limestone is the Amsden Formation (370 million years old), which forms a reddish slope about 150 feet thick. In the western part of the park, it is above the Madison cliffs and is visible farther down the valley, where it makes up the red slope seen below the Tensleep Sandstone cliffs. The Tensleep Sandstone forms whitish cliffs across the road from the visitor center. This 300-million-year-old sandstone formed in a near coastal environment, where huge ancient dunes were preserved, now visible as sloping lines in the rock called cross-beds.

#### **Mountain Building**

The rocks exposed in Sinks Canyon were uplifted and deformed during the Laramide orogeny (orogeny means "mountain" and "origin"), which occurred around 75 million years ago. This mountain-building event uplifted the Wind River Range above the surrounding basins such that rocks in the interior of the range are now up to 45,000 feet higher than equivalent rocks buried deep in the Green River Basin to the west. The layers of sedimentary rock visible in the park have mostly been eroded from the high peaks of the Wind River Range, which has a core of metamorphic and igneous rocks up to 2.7 billion years old. Along the eastern flank of the range, in locations like Sinks Canyon, the east-dipping sedimentary rocks are still preserved and provide evidence for the folding and tilting that accompanied Laramide mountain building.

#### Glaciers

In the last two million years, glaciers formed in the high peaks of the Wind River Range. The glaciers flowed slowly from the mountains into lower-elevation canyons, scouring the land surface and collecting large amounts of sediment. The sediment inside and on top of the ice flowed down the valley as the glacier moved, and large, hummocky mounds of glacial debris called terminal moraines were deposited at



Simplified geologic map of Sinks Canyon State Park and its surroundings. Geologic unit ages are in millions of years (Ma). Courtesy of WSGS. (Continued on Page 7)

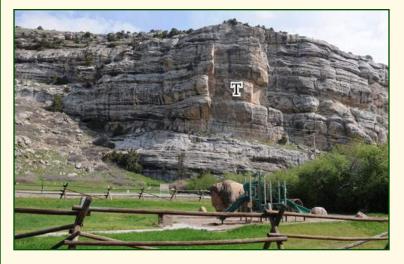
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### Sinks Canyon State Park

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In the western part of the park, the Madison/Darby Limestone (M/D) tops the cliff (top photo). Traveling on the highway toward Lander, the Madison Limestone descends the canyon to the Sinks. From the visitor center, the Tensleep Sandstone (T) is at the top of the cliff (middle photo). At the Sawmill Campground, the Tensleep comprises the cliffs across the highway (bottom photo). Photos courtesy of WSGS

the lowest end of the glacier. These moraines are composed of unsorted, rubbly deposits of boulders, sand, silt, and clay known as glacial till. The Canyon Loop Trail, across the river from the Popo Agie Campground, traverses glacial till. A terminal moraine from the second-to-last, or "Bull Lake," glaciation is near the Sawmill Campground. At the Sinks lies the terminal moraine of the "Pinedale" glaciation, the most recent widespread glacial episode in the Rocky Mountains. In and around Sinks Canyon, moraines of the Bull Lake glaciation have been dated to 163,000–93,000 years old, and moraines the Pinedale glaciation have been dated to 22,000–19,000 years old.

### HYDROGEOLOGY

The most dramatic feature of Sinks Canyon State Park is the place where the Middle Fork of the Popo Agie River vanishes underground. It enters a cavern in the Madison Limestone at the Sinks and reappears at the Rise. The river's course from the Sinks to the Rise remains a bit of a mystery. How does it travel through the rock? Limestone units, like the Madison, often dissolve to form caves. Is there a single cave that connects the Sinks and the Rise? To study the river's underground pathway in the park, scientists added an ecologically safe dye to the river above the Sinks. The dye resurfaced at the Rise, confirming the connection, but the dye took 2–8 hours to move underground from the Sinks to the Rise—a straight-line distance of less than a half mile. Thus, the water in the cavern takes far longer to flow underground than it would take to flow on the surface.



The Middle Fork of the Popo Agie River emerges at the Rise and flows northeast into the Wind River Basin. Photo courtesy of WSGS (Continued on Page 8)

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### Sinks Canyon State Park

This difference in time suggests a twisting underground path through caves and fractures. In addition, the volume of water coming out of the Rise is greater than the water entering the Sinks, indicating that other sources of water join this underground system. Outside the Sinks, the Middle Fork of the Popo Agie River is a spectacular agent of erosion and deposition. In some areas, rapid waters have carried away glacial clays, silts, and sands to leave behind only cobbles and boulders, as seen by the enormous rocks in and along the riverbed.

The more powerfully the river is flowing, the larger the boulders it can carry. By the time it reaches the lower river valley of the park, the river has dropped the large boulders and cobbles and is transporting mainly sands and silts. During the spring snowmelt, the Middle Fork of the Popo Agie River can run very high. Sometimes the river is so full, the Sinks cannot accept all of the water and excess water flows into a nearby surface overflow channel.



Above the Sinks, rapid waters of the Middle Fork of the Popo Agie River have exposed huge boulders in the riverbed. JSN photo by llene Olson



After re-emerging at the Rise, the Middle Fork of the Popo Agie continues its journey as a much calmer river. JSN photo by llene Olson



For more information, visit: <u>wyoparks.state.wy.us/index.php/places-to-go/sinks-canyon</u> Wyoming State Geological Survey • P.O. Box 1347 Laramie, WY 82073-1347 <u>www.wsgs.wyo.gov</u> • phone: (307) 766-2286 • email: <u>wsgs-info@wyo.gov</u>

# It's not too late to comment on BLM's management plan

If you haven't commented on the BLM management plan for the Rock Springs disrict, there is still time. The deadline for comments has been moved to January 17.

As written, the plan would significantly limit public access to land in the Rock Springs District and prohibit rock and mineral collection by hobbyists.

It also will have other significant economic consequences and public impacts for the Rock Springs district. If this is allowed to stand, opponents say it will likely be repeated in future management plans for the BLM's other districts in Wyoming.

Cat Urbigkit, a columnist for the Cowboy State Daily who lives in the Rock Springs area, has written several columns about the resource management plan:

https://cowboystatedaily.com/2023/09/12/cat-urbigkitlegislators-to-blm-rock-springs-plan-is-a-communitykiller https://cowboystatedaily.com/2023/08/29/blmproposal-prefers-people-not-be-able-to-use-public-lands

https://cowboystatedaily.com/2023/10/10/cat-urbigkitit-doesnt-matter-what-the-blm-says-what-counts-iswhats-in-writing

https://cowboystatedaily.com/2023/10/12/cat-urbigkiti-live-in-the-rock-springs-district-of-the-blm-heres-whati-see

https://cowboystatedaily.com/2023/09/28/cat-urbigkitblm-is-tired-of-misinformation-about-rock-springs-planbut-the-plan-itself-is-misinformation

These informative columns, and they will help you provide substantive comments to the BLM. Let your voices be heard!

### Ways to provide feedback on the BLM plan

### Comment on the webpage

• Visit <u>https://eplanning.blm.gov/</u> <u>eplanning-ui/project/13853/570</u> Click "Participate Now." Enter in your favorite option and give your reasons. If you are a senior and want to access you favorite areas, let them know. Put down your feelings, and mention how long you have been accessing public lands. Detail your concerns with the plan.

Written comments related to the Rock Springs RMP Revision may be submitted by any of the following methods:

### By email

• Send an email to <u>blm\_wy</u> rockspringsrmp@blm.gov

### By mail

• Write to: RSFO RMP Draft EIS Comments, Attn: Carlos Coontz 280 HWY 191 N Rock Springs, WY. 82901

Personal letters work best, but some clubs are writing form e-mails or letters that you can send in. Though somewhat less effective than personal letters, form letters are far better than no response at all. Send e-mails or letters to our Senators and Representative in Washington asking that they ensure the BLM follows the Federal Land Policy and <u>Management Act</u> and other federal law.

Share this information with your friends or acquaintances who enjoy hunting, fishing, camping, off-roading, hiking or any other activity on BLM land. Encourage them to comment as well.

### **Lapidary Feature**

# **How To Polish Stones With A Dremel**

(Step-By-Step Guide)

By Don Gerig Rockseeker.com April 28, 2021

You don't need a workshop filled with lapidary equipment to polish stones. As long as you've got your trusty Dremel or any other rotary tool, you can get your stone smoothed out and shining.

So, without further ado, let's hop right in and we'll show you how it's done.

Before you begin, you'll need to have the right tools and protective gear for the task.

As far as tools, you'll need the following:

### **Materials Needed:**

- A Dremel or other rotary tool
- Diamond grinding wheels and burrs
- Sanding drums or discs up to 1000 grit
- Felt polishing wheel
- Rock polishing compound
- Water



A corded, variable-speed Dremel is best for polishing stones. Source: Rockseeker. com

### Choosing Your Dremel

### My Top Pick For Lapidary

Any Dremel or rotary you have on hand is capable of polishing a stone with the right accessories.

Here are a couple of recommendations if you're purchasing one.

• First, ensure you have variable speeds. Working stone is a low RPM affair, and a high-low switch or single-speed motor will make things harder.

• You should also look for a model compatible with a flex shaft. Dremel makes a branded one for their tools and they work better than a standard configuration. You can remove the risk of electric shock by placing the Dremel away from your water source while cutting. The handpiece is also more maneuverable than the rotary tool itself.

Battery-powered Dremels are a favorite, but extensive work can take more than one charge. If you've never worked rocks, you're going to find out that extensive work is much smaller than you think.

### Protecting Yourself While Polishing

Grinding stones is a bit hazardous, even when you're working by hand. Your Dremel is going to throw off a lot of dust, and most of it is bad for your lungs.

In some cases, such as agate, you'll be creating ultra-fine particles of silica that can lead to silicosis over time. Others can lead to more immediate



Use a high-quality N95 type or better mask for protection against harmful dust. Source: Rockseeker.

consequences, like the arsenic in Bumblebee Jasper. In any case, it's best to avoid dust as much as possible.

• Wherever you're working needs good ventilation. Outside is best, but it's not possible for everyone.

• You should also use a mask, even if you're working outdoors. Don't use a regular dust mask, they're meant for sawdust and large particles. You'll need at least an N95 rated mask, and you're best off with a half-face respirator with the appropriate filters.

• To keep the dust levels low, you should work stones wet. You can use a drip system or dunk the stone in water repeatedly. If you have access to a flex shaft for your Dremel, you can work them directly in the water.

• If you're using a corded Dremel, be careful. Even if you're far from the outlet, it's a good idea to create a drip loop to avoid water running down the cord. All you have to do is make sure there's a looped segment lower than the outlet.

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### How to Polish Stones with a Dremel

• Safety glasses are a must. Stones can chip unexpectedly and the resulting stone can damage your eyes. Use an ANSI-rated pair.

If something gets around your glasses, don't touch your eye. Stone splinters will cause a lot more damage.

Take a hint from Ishi and pry open your lids before thumping yourself in the back of the head. It's undignified and a bit painful but it works. If it doesn't, get yourself to the local ER.

This isn't a particularly dangerous task, the hazards are easily avoided with some basic protective gear. As long as you've got a mask and goggles you're good to go!

If you have your tools and personal protective equipment (PPE) together, then you're ready to get started.

### How to Polish Stones With a Dremel

#### **Step 1: Clean Your Rocks**

If you haven't already, you should get your rocks cleaned.

Since we're going to sand, and possibly grind, the stone it's not important to get them shining. The dust from the stone is more hazardous than any dirt the Dremel might send airborne.

A bucket with warm soapy water and a wire brush will do the trick. For soft stones, a stiff nylon brush may be better. On the other hand, you'll be grinding any surface scratches a wire brush will create.

Pay special attention to deeper crevices. The dirt build-up can hide fractures that need to be ground out.

Once they're clean, it's time for the fun to begin.

### Step 2: Grind to Shape

Diamond grinding wheels and burrs will let you shape the stone.

Keeping the stone wet, grind the stone into a rough shape. You can hold smaller stones in your hand if you're careful with the Dremel, larger stones may need to be held in a vise.

Grinding will rapidly remove water from the stone's surface. You'll need to wet the piece frequently or it will begin throwing off a lot of dust. It can be tempting to just grind through, but you'll get a rougher finish and make a mess.

For those just trying to get a "tumbled" look, this step will take less



You will need a variety of grinding tools. Source: Rockseeker.com

time. Use ball burrs to open crevices and remove fractures, and use the grinding wheels for bringing down material. The last bit is important: you may lose some stone, but a heavily fractured piece will fall apart in your hands when you get to sanding.

usually better, but you'll be fine as long as the bit isn't slinging mud. If a stone is getting too hot to handle, it's a good sign to lower RPMs.

Use a light touch. Diamond bits burn quickly when you're pressing them down. A light touch and low RPMs will make them last much longer. But, even with best practices, diamond burrs are disposable. Sooner or later the grit wears off or the diamonds burn, it's just part of the process.

Some people cut cabochons with a Dremel. It's a little bit outside of the scope of this article, but all you need is a set of diamond-cutting wheels. Most cabochons will go through a more intensive shaping and polishing process, but the basics are the same as polishing a specimen.

If you're not carving a particular shape, the most important thing is that the stone has any unstable portions removed through grinding. After that, it's just a matter of aesthetics.

Once you're happy with the shape of your stone, you're ready to move on.

#### Step 3: Sanding

Sanding the stone is a matter of patience.

You should begin with a lower grit, something in the range of 400 is a good start as long as you ground the stone to your liking. Anything lower will remove a lot of material, a 200 grit drum does well for final touches but sharp corners and removing fractured lower than 200 grit isn't advisable. Go back to the diamond if 200 grit won't make the adjustment.

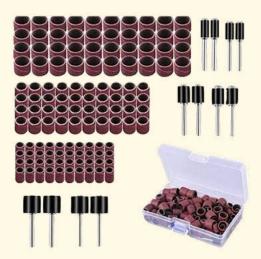
Then it's a matter of smoothing the surface of the entire stone evenly. It While grinding, you should use can take a lot of time depending on the a low speed on your tool. Lower is size of the stone, but you need to work (Continued on Page 12)

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### **Jade State News**

### How to Polish Stones with a Dremel



Sanding drums come in different grits and sizes. Source: Rockseeker.com

methodically.

Letting the stone dry and rubbing off the dust with a microfiber cloth is a good way to figure out if it's time to move up in grit.

For a complete newbie, I recommend covering the entire stone in Sharpie or another black marker. The ultra-thin layer of ink will be removed easily, and you'll know that you've sanded that portion of the stone.

Lower grits will leave a distinctive scratchy pattern. This comes out with the next grit, and it's a reliable indicator of how far along you are.

Keep the stone wet while sanding.

starting to come off.

Work progressively to higher grits. Most sanding drums and discs are spaced apart by 200 grits, which is ideal. Run from 400-1000 or 1200 depending on what you have on hand.

#### **Optional: Hand Sanding**

For a better finish, you can also hand sand the stone once you're beyond 1000 grit and before polishing. We recommend it for cabochons, but it's not required for polished specimen pieces.

Begin hand sanding at 1500 or 2000 grit. You can find sandpaper up to 5000 grit online, but most hardware stores top out at 3000.

Hand sanding can be tedious, but just move to the highest grit you have. At this point, you'll usually be going up by 500-1000 grit between jumps. Expect to spend at least a few minutes with each grit.

Going over 2500 isn't required in most cases, but it's an option for perfectionists.

Step 4: Final Polishing

down, you can create the final polish.

You should remove sanding dust with-a-dremel/

Dip the stone as soon as you see dust before proceeding. It can lead to small scratches on the surface of your stone as the grit gets moved around. A microfiber cloth is good for removing the fine dust on the rock after sanding.

> For most stones, the recommended polishing compound is cerium oxide. It most often comes in the form of a powder. You'll need to create a paste to apply it to your wheel.

> Just mix it with a bit of water to apply it. If you don't have a felt polishing wheel for your Dremel, you can also apply this paste to a piece of cloth for polishing. Hand polishing is... trying, however, and it won't achieve better results.

> Use the Dremel at a slow speed, you shouldn't be flinging paste all over. Apply it to the stone and move the wheel over the surface. You'll also want to move the wheel in small circles as it goes, rather than trying to run it straight across.

> Once you're done buffing, you'll have a piece you can be proud of!

*Reprinted with permission.* See With the stone properly sanded the story and illustrations at https:// rockseeker.com/how-to-polish-stones-

Back to Page 1





Is your club doing fun things? Do you have a story you'd like to share? Know someone who would make a great Rockhound Spotlight?

Send stories and photos to jsn@wsmgs.org

# **2024 Rock Show Flyers**



Park County Fairgrounds Children 12 and under admitted free of charge! Adulf ፍጸ

### Theme: Minerals of Wyoming

### Vendors

Rocks, Slabs, Minerals, Knives, Arrowheads, Jewelry, Cabochons, Fossils, Beads and More! Rockldentification Kids' Activities Raffle Prizes



Medicine Bow Dendritic Agate

### Demonstrations

Lapidary, Knapping, **UV Fluorescent Rocks**, Wire Wrapping and More! **Educational Displays** Silent Auction Door Prizes Food Trucks

Powell, Wyoming, is 75 miles east of Yellowstone National Park. Come join us and have fun!







Minulyte from Cedar Mountain

Hosted by the Shoshone Rock Club of Powell and the Cody 59ers Rock Club Contacts: gilbertc@tctwest.net • lapidarygary2@gmail.com • wyojones@wyojones.com

Page 13

### 2024 Rock Show Flyers

(Continued from Page 13)



The Sublette County Rock Hounds present

# **GEM & MINERAL SHOW** June 14 – 16, 2024

9am – 5pm Friday & Saturday

9am – 3pm Sunday

### Sublette County Fairgrounds Event Center, 10937 Hwy 189 Big Piney - Marbleton, Wyoming

**VENDORS**: rough rock, slabs, cabs, specimens, fossils, jade, opal, jewelry, beads, jewelry making supplies & MORE

**DEMONSTRATORS**: Knapping, wire wrapping, <u>silversmithing</u>, <u>cabbing</u>, sphere making, fossil preparation

**EXHIBITS**: specimens, education, rock identification

ACTIVITIES: Mr. Bones dinosaur puppeteer, find a rock, fluorescent rock hunting, wheel of fortune, & more!

FIELD TRIPS: fossil fish fee dig, petrified wood, & more

### FOOD CONCESSIONS ON-SITE

Contact Jim Gray jimgray@wyoming.com or Mike Schaffer maschaffer61@gmail.com.com



# Club News



### Cody 59ers Rock Club \_

Cody, Wyoming

The Cody 59ers had their Christmas Party Potluck at the Boot and Bottle Riding Club in December. Over 40 members attended, the Club provided fried chicken and baked ham, and members brought plenty of sides and desserts to fill the buffet tables.

Members Sue Haisch and Iris Harbert organized a fun gift exchange. Audrey Smith had excellent participation in the Ugly Sweater Contest, and she provided the prizes for the winners chosen by applause. Members played a "plasticwrap ball" game and competed for small prizes, rocks, and candy. There were also door prizes and a wrapped-rock exchange so everyone who participated took home a newto-them rock.

The Club's new vice president, David Gillard, helped to emcee the party. The best part was that President Greg Jones was able to attend after his recent hip surgery to say the blessing and wish everyone a Merry Christmas!



Above: Iris Harbert, Sue Haisch and Ardyce Minch examine a unique Christmas gift. Below: MarkAnderson holds up his gift of chocolate. Photos by Nella Flurkey, Scott Bates, and Bill Tabacinski



Ugly sweater contestants proudly sport their festive wear.



(Club News continued on Page 16)

### Volume 2023, Issue #4

### Jade State News

### December 2023

### **Club News**

### (Continued from Page 15)

## Cody Rock Club

The Cody 59ers joined the Cody Downtown Merchants in passing out treats to hundreds of children on Halloween. The only difference was, the treats club members gave to the trick-or-treaters were polished rocks and small geodes!

Children, and even a few adults, were delighted to choose a rock. Club members donated the rocks and also several bags of candy for the event. The club also bought candy. Just like last year, the rocks ran out long before the candy did! About 15 club members participated, along with "Blue" of Jurassic Park fame.





Left: Cody 59ers club members Sue Haisch, Iris Harbert and Cathy Haslett hand out rocks and candy. Above: "Blue" the velociraptor, a.k.a. Nella Flurkey, helps a young trick-or-treater. Photos by Elaine Tabacinski

### Sublette County Rockhounds Marbleton, Wyoming

The Sublette County Rock Hounds in Marbleton held their 2nd annual fall show in conjunction with the quilters of Sublette County at the SW Sublette Senior Citizen Center on September 29 & 30, 2023. Club members participated as vendors, with several more assisting with set-up and clean-up. "This is an opportunity for our club members to sell the items they have made", said club President Jim Gray. Items for sale at this show were not limited to only rock or rock-related items, he said.

"We have lots of very talented members!" Gray reported.



Sublette County Rock Hounds' fall show set up and ready to open. Photo by Leane Gray (Club News continued on Page 17)

December 2023

### **Club News**

### (Continued from Page 15)

### **Sublette County Rockhounds**

(continued)

### **SCRH Christmas Party**

The annual Christmas Party of the Sublette CountyRock Hounds occurred on November 11 at the SW Sublette Pioneers Senior Center in Marbleton. Sixty-three members attended and contributed to a delicious potluck meal, rock-related gift exchange, ugly sweater contest, silent auction, and door prize drawings. This year's event also included a guest presentation about stromatolites by member Eddy Cole of Thermopolis.







Above: Presenter Eddy Cole answers questions about stromatolites with members Emily Paravicini and Josh Hebert, picture taken by Leane Gray. Photo by Leane Gray

Far left: Brad Balue helps with potluck setup. Photo by Kristi Glaze

Left: Brad Balue helps with potluck setup. Photo by Kristi Glaze



Ugly sweater contestants line up for judging during the Sublette County Rock Hounds Christmas party. Photo by Leane Gray

(Club News continued on Page 18)

December 2023

### **Club News**

### (Continued from Page 14)

### Shoshone Rock Club —

**Powell, Wyoming** 

### By llene Olson

**JSN News Editor** 

The Shoshone Rock Club continues to work with the Cody 59ers to plan for the 2024 Big Horn Basin Rock and Mineral Show. The show will take place Thursday through Saturday, May 30-31 and June 1, at the Park County Fairgrounds in Powell. This show will also serve as the annual show and convention for the Wyoming State Mineral and Gem Society.

In November, Shoshone Rock Club members enjoyed a presentation about the fascinating properties and uses of fluorite. Linda Thomas gave the presentation during the club's November meeting.

Club member Linda Thomas said fluorite is a powerful crystal, and the only one that is double-terminated, often forming an octahedron on each end. Fluorite crystals can form four-sided points on both ends.

Fluorite is quite soft, with a MOHS hardness of 4. That, and the fact that it forms octahedrons, distinguish fluorite from quartz crystals. Fluorite comes in many colors, and it fluoresces under a black light, typically showing a vivid blue.

Acid-grade fluorite is used to manufacture hydrochloric acid, while ceramic-grade fluorite is used to make glass and ceramic ware. It also is used to manufacture Teflon. Its metallurgical properties make it useful in producing iron, steel and other minerals. It also is used in flux for soldering.

Fluorite is found in large quantities in Mongolia, Mexico, China and South Africa. Some fluorite is found in Wyoming, but generally not of high quality.

Club members enjoyed Thomas' report and a chance to see some of her fluorite collection.

In October, the Shoshone Rock Club had a silent auction, with Greg Jones on hand to help members with rock identification, while Gary Olson helped people learn how to grind and polish rocks with a flat lap grinder.

In December, club members gathered for a Christmas party at the Gestault Studios. The potluck meal was a taco bar, with the club providing the meat and members bringing



Shoshone Rock Club member Linda Thomas holds a colorful fluorite crystal with an octahedron point on top. JSN photo by llene Olson

other ingredients and desserts.

The meal was so enjoyable that there wasn't a lot of time afterward to exchange gifts, so new club member Denise served as Santa for the group and distributed the rockrelated gifts among the members. We each went home with a new treasure. It was an enjoyable gathering, and everyone had a good time.

We wish each of you happy New Year!



# **WSMGS Rock Clubs**

### Riverton Mineral & Gem Society

P.O. Box 1904 Riverton, WY 82501

rivertonmgs@wsmgs.org www.RivertonMGS.com

Meets 2nd Mon. 7 p.m. (Jan.-May, Aug.-Nov.) Senior Center, 303 E. Lincoln, Riverton

President:	Stan Grove
Vice-President:	Molly Fauth
Treasurer:	Al Zelnak
Secretary:	Holly Skinner
JSN	Open
Historian	Open
Field Trips	Ted Knowles

### Cheyenne Mineral & Gem Society

P.O. Box 21412 Cheyenne, WY 82003

cheyennemgs@wsmgs.org

Meet 2nd Wed. 7 p.m. (August-May) IBEW Union Building 810 Fremont Street-Cheyenne

President:	Open
Vice President	Open
Treasurer:	Jan Shively
Field Trip	Mark Shively

### Natrona County Rockhounds

P.O. Box 123, Casper, WY 82644

natronarockhounds@wsmgs.org

Meets 1st Monday 7 p.m. (April-Dec) Shop Open 6-8 p.m. Tue & Fri at Clubhouse, 5211 Rambler, Mills

President:	Martin	"Mac" Goss
Vice-Presi	dent:	.Renee Eddi
Treasurer:		Ken Platte
Secretary:		Kim Platte

### **Cody 59ers Rock Club**

P.O. Box 1251 Cody WY 82414

cody59ers@wsmgs.org www.Cody59ers.com

Meets 4th Thursday (Sept-May) 6:30 p.m.
Park County Library, Grizzly Room
President: Greg Jones
Vice-President: Stephanie Melbraaten
Treasurer: Aubrey Smith
SecretaryNella Flurkey
Historian: Stan Strike
Field Trips Greg Jones



### Sublette County Rock Hounds Club

P.O. Box 1351 Big Piney, WY 83113

subletterockhounds@wsmgs.org

Meets 1 p.m. 3rd Saturday (March-Dec) The Bench Grill 415 Winkleman, Marbleton

President:	Jim Gray
Vice-President:	Mike Schaffer
Treasurer:	Leane Gray
Secretary:	
Field Trips	Roger McMannis

### **Shoshone Rock Club**

P.O. Box 256, Powell, WY 82435

shoshonerockclub@wsmgs.org

Meets 2nd Tuesday 7 p.m. Powell Library Meeting Room 317 E. Third St., Powell

President:	Gary Olson
Vice-President:	Elyse Lynn
Treasurer:	Lara Myers
Secretary:	Charis Cervantes
JSN:	Ilene Olson
Historian:	Linda Jennings
Field Trips:	Dorine Strom

### **Rex Young Rock Club**

112 East 3rd Lingle, WY 82223

rexyoungrockclub@wsmgs.org

Meets 2nd Wednesday 7:00 p.m. Senior Center 216 E. 19th Ave., Torrington

President:	Kim Nielsen
Vice-President:	Ed Verplancke
Treasurer:	Helen Vogel
Secretary:	Joyce Trowbridge
JSN:	Joyce Trowbridge
Historian:	Joyce Trowbridge

### Northeast Wyoming Rockhounds

2107C N. Hwy 14-16 Gillette WY 82716

newyrockhounds@wsmgs.org

Meets odd # months Check email for dates

President:	Dennis Brown
Vice-Presi	dent: Juli Roller-McDougall
Treasurer:	Open
Secretary:	Open

## WSMGS Electronic Board Meeting October 2023

### WSMGS ELECTRONIC BOARD MEETING October 2023

#### I. Electronic Meeting Instructions to Board Members:

As a WSMGS Board Member, I ask you to read this Electronic Meeting email and VOTE on all Action Items by selecting "Reply All" after typing your name and indicating a "Agree or Disagree" vote for each numbered Action Item. The Deadline for your responses by "Reply All" email will be Monday, October 22, 2023. If you have questions about any item call, text, or email me at 307-260-6442 or pres@ wsmgs.org Board members are encouraged to submit old or new business items that have not been included in this meeting and a special attachment will be sent out for the entire WSMGS Board's consideration.

#### II. President's Report by Jim Gray:

A. NE Wyoming Rock Hounds will be re-joining WSMGS and RMFMS and new club is forming in Douglas, there is a new club forming in Sheridan also.

B. WSMGS 2024 Annual Show will be hosted by Shoshone Rock Club at the Park County Fairgrounds. The Show will be May 30, 31 and June 1st,2024.

C. State clubs in the past have helped the club doing the state show by donating tumbled rock, rock for silent auction, cash donation to help with advertising, etc. So, if your club wants to help Powell/Cody let them know so they can plan.

D. If any Club has any questions, concerns, or needs please let me know and I will do my best to help.

E. We have a new reporter to help Ilene with the Jade State News, it is Nella Flurkey.

F. I would like to continue Obituary page to the Jade State News. Send this information to pres@wsmgs.org

G. The WSMGS would like to encourage clubs to nominate non-club members individuals/couples from your region who have been active in promoting the Earth Sciences to be recognized by receiving recognition in the Jade State News as Wyoming Rock Stars! Check out former winner write-ups on the WSMGS website: wsmgs. org-Menu-WSMGS Topic Library-WSMGS Awards. Rock Star Nominations: please submit these nominations with a descriptive paragraph and photo to pres@wsmgs.org. There is not an award associated with the nominations; it is a recognition.

H. I will be getting the WSMGS annual membership dues report and the Annual Election of club Officers and Email Contacts Report, out shortly.

I. RMFMS Report, Dues and club insurance form 2023-24.

#### III. Vice President's Report by Linda Richendifer:

A. Please submit any changes in the WSMGS membership directory to Linda. This directory is not to be copied or shared outside the club membership.

#### IV. Secretary's Report By Leane Gray:

A. Prior Electronic WSMGS Board Meeting Minutes are printed in the Jade State News, which are available online: wsmgs.org under the heading Newsletters.

#### V. Treasurer's Report by Mac Goss:

A. WSMGS Club Report Reminders

a) January 1st to May 15th- Form 990N must be electronically submitted to the IRS (The Registered agent for each club should receive this form from the IRS in advance of the deadline). Clubs may contact the IRS directly by email: la2.alt.www4.irs.gov/pub/rup\_login\_1

B. Deadline for Annual Report to WY Sec. of State Varies by WSMGS Club -- Deadline for renewal of "Non Profit Corporation Annual Report" varies by club and is due the 1st day of the month in which the club was first recognized by the Wyoming Secretary of State as a Non Profit Corporation.

(The Registered Agent for your club should receive this form in advance of the club's deadline

#### WSMGS Clubs' Incorporation Dates:

• Cheyenne Mineral & Gem Society —December 2, 1969

(Continued on Page 21)

### WSMGS Electronic Board Meeting

### (Continued from Page 18)

- Cody 59ers Rock Club February 1, 2012
- Natrona County Rock Hounds April 15, 1954
- Rex Young Rock Club Not Incorporated
- Northeast Wyoming November 8, 2018
- Riverton Mineral & Gem Society August 17, 2012
- Shoshone Rock Club February 8, 1962
- Sublette County Rock Hounds March 21, 2018
- WSMGS Board Incorporated November 23, 1964

C. The current Treasurer's Report can be found on Page 19.

#### VI. Historian Report by Roger McMannis:

#### VI. Jade State Newsletter by Ilene Olson:

A. Clubs are encouraged to submit news items, articles, abbreviated minutes, and photos for publication in the Jade State News.

a. Submission dates to Jade News Editor [jsn@wsmgs. org] are the 1st of February, May, August, and November.

#### VII. WSMGS Website

A. The WSMGS needs Action Photos from each of your clubs. Please include the photographer's name for proper photo credit and a short caption summary as to activity. Send photos to: pres@wsmgs.org

#### **VIII. Old Business:**

A. WSMGS Club Shows, 2024

Cheyenne, May Sublette, June 14-16 Natrona, July Shoshone, August NE Wyoming, October

### IX. New Business: \*\*\* VOTE Action Item #1-

Pay Jade State News Editor \$75.00 for supplies etc for the Jade State News Letter.

Vote Yes: Passed – JSN Editor Ilene Olson abstained from voting, VP did not respond, all others voted in favor. Vote No: No objections were voiced.

\*\*\* **VOTE Action Item #2**- Would like to increase Jade State News Editor quarterly payment for supplies and computer software subscription to \$100.00 beginning January 2024.

Vote Yes: Passed – JSN Editor Ilene Olson abstained from voting, VP did not respond, all others voted in favor. Vote No: No objections were voiced.

\*\*\* **VOTE Action Item #3**- Give gift card for Marlene Sibley, Webmaster for \$50.00

Vote Yes: Passed – VP did not respond, all others voted in favor.

Vote No: No objections were voiced.

X. MEETING ADJOURNED — Sunday, October 22, 2023.



(Continued on Page 22)

### **WSMGS Electronic Board Meeting**

### (Continued from Page 20)

### C. The current Treasurer's Report is as follows:

DATE	T sets these the constant time is described as	EXPENSE, PAYMENT	<u>Cleared</u> <u>Bank?</u>	REVENUE, DEPOSIT		RUNNING BALANCE	BANK	BALANCE
169	7/6/2023 VOID				x		\$	4,706.52
170	7/6/2023 JZD Masonry, Jimmy Baca – State RO	Y plaque	\$	100.00	x		\$	4,606.52
Debit Card	7/11/2023 Pit Stop, fuel to transport WSMGS trai	ler to Caspe	r \$	73.09	x		\$	4,533.43
Debit Card	7/12/2023 Loaf n Jug, fuel to transport WSMGS t	railer to Cas	pe \$	84.05	х		\$	4,449.38
Debit Card	7/12/2023 Staples, copies for WSMGS annual me	eeting	\$	31.49	х		\$	4,417.89
171	7/13/2023 Linda Richendifer - Travel expenses, a	annual mtg	\$	200.00	х		\$	4,217.89
172	7/13/2023 Ilene Olson - Travel Expenses, annua	meeting	\$	200.00	x		\$	4,017.89
173	7/13/2023 Jim Gray – Travel expenses, annual m	eeting	\$	200.00	х		\$	3,817.89
174	7/13/2023 Mac Goss – Travel expenses, annual	meeting	\$	200.00	x		\$	3,617.89
175	7/13/2023 Leane Gray – Travel expenses, annua	I meeting	\$	200.00	x		\$	3,417.89
176	7/13/2023 Ilene Olson – JSN editor supplies		\$	75.00	х		\$	3,342.89
177	7/21/2023 UW Trademark Licensing, Bucking Ho	rse renewal	\$	250.00	х		\$	3,092.89
Deposit	7/28/2023 Deposit – Sales at annual show fund	raiser table			x	\$ 442.	00 \$	3,534.89
Debit Card	8/9/2023 8 <sup>th</sup> street Ivy - gift to Marlene Sibley (	2 gift cards)	\$	100.00	x		\$	3,434.89
178	8/10/2023 Wyoming 4-H Foundation, sponsor sta	ate fair geo	\$	50.00	x		\$	3,384.89
179	8/10/2023 Crook County Museum, donation towa	ard geo disp	lay \$	100.00			\$	3,284.89
Deposit	8/24/2023 Deposit – donation Jim Gray				х	\$ 5.	00 \$	3,289.89
Debit Card	9/8/2023 Wyoming Secretary of State, annual f	iling	\$	27.00	x		\$	3,262.89

#### WSMGS-20202-2023 MEMBERSHIP REPORT

CLUB NAME	ADULTS	JUNIORS	PEBBLE PUPS	LIFE HONORARY	TOTAL
CHEYENNE MGS	66	0	0	14	80
	50	0	0	17	67
CODY 59ERS RC	153	19	11	19	202
	43	8	1	12	64
NATRONA CO RC	73	0	4	6	83
CASPER	77	1	0	8	86
NE WY RH GILLETTE	14	0	0	0	14
GILLETTE					
REX YOUNG RC	11	0	0	0	11
TORRINGTON	18	0	0	0	18
RIVERTON MGS	204	7	0	9	220
	196	7	4	9	216
SHOSHONE RC	70	0	0	9	79
POWEL	43	0	0	9	52
SUBLETTE CO RH	181	21	27	5	234
	180	22	17	5	224
TOTALS	772	47	42	62	923
	621	38	22	60	741



# Code of Ethics

#### American Federation of Mineralogical Societies

I will respect both private and public property and will do no collecting on privately-owned land without permission from the owner.

I will keep informed on all laws, regulations or rules governing collecting on public lands and will observe them.

I will, to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind such as fences, signs, buildings, etc.

I will leave all gates as found.

I will build fires only in designated or safe places and will be certain they are completely extinguished before leaving the area.

I will discard no burning material — matches, cigarettes, etc.

I will fill excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks, or other water supplies.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field-trip leaders and those in designated authority in all collecting areas.

I will report to my Club or Federation Officers, Bureau of Land Management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule," will use Good Outdoor Manners and will at all times conduct myself in a manner which will add to the stature Public Image of Rockhounds everywhere. and

### **Purposes and Policies**

### **Rocky Mountain Federation of Mineralogical Societies**

Excerpts from 2023 Directory (Revised)

• To bring about a closer association of the Earth Science Groups in the Rocky Mountain Region.

• To increase and disseminate knowledge about minerals and other geologic materials.

• To encourage mineral study, collecting, and fashioning as a HOBBY.

• To sponsor local organizations interested in similar purposes.

• To encourage all clubs to publish bulletins and newsletters.

• To continue building up and promoting the use of Federation Library of slide programs, videos, CDs and DVDs to each member club.

• To distribute information and suggestions on the preparation and arrangement of specimens and materials for exhibit and display.

• To provide information and assistance to clubs holding Gem and Mineral Shows.

• To encourage clubs to support the American Federation of Mineralogical Societies Scholarship Foundation Fund.

• To promote the concept that all members of all clubs are members of the RMFMS and the AFMS, and to encourage individual members and clubs to take responsibility for asking questions or making known that help is needed.

• To encourage more contacts between those working at the Federation level, between clubs, and between club members.

To keep the members informed of problems and activities regarding the use of Public Lands.

• To continue to support Federation-sponsored programs.

The Rocky Mountain Federation is composed of a membership of approximately 9,000 members in the following states: Arizona, Arkansas, Colorado, Kansas, Nebraska, New Mexico, Nevada, North Dakota, Oklahoma, South Dakota, Texas, Utah and Wyoming.

The work of the Federation is directed by the Executive Committee, composed of: President, Secretary, Treasurer, Historian, State Directors and the two immediate Past-Presidents.



# **Rock Shops in Wyoming**

### Casper

Rick's Rocks 511 South Melrose Street Casper, WY 82601 (307) 265-7625 Facebook: caspermonumentsandricksrocks Storefront: Mon – Fri 9-5, closed 12-1 Engraved memorials and river rocks

### Wonder!

1825 Cy Avenue Casper, WY 82601 (307) 268-8732 Facebook: Wonder! Storefront – regular hours Metaphysical products and books

### Cheyenne

### **Bohemian Metals**

314 West 17th Street Cheyenne, Wyoming 82001 (307) 778-8782 Facebook: Bohemian Metals Store Front: Tue – Sat 10-6 Jewelry, minerals, fossils, crystals, beads, rough rock, slabs, and teaching studio

### **Evanston**

Antares Fossils & Minerals 431 Front Street Evanston, Wyoming 82930 (307) 789-8737 Facebook: Antares-Fossils-Minerals Storefront – regular hours

### Gillette

**Rocks to Riches** 1758 US – 14 Gillette, WY 82716 (307) 670-8011

### **Kemmerer**

In Stone Fossils 413 Coral Street Kemmerer, WY 83101 (307) 723-1141 www.instonefossils.com Facebook: In Stone Fossils Storefront – Mon – Sat 8-5

### **Wyoming Fossils**

921 Pine Avenue Kemmerer, WY 83101 (254) 223-3204 www.wyomingfossils.com Facebook: Wyoming Fossils Storefront – regular hours

### **Ulrich's Fossil Gallery**

4400 Co Rd 300 Kemmerer, WY 83101 (307) 877-6466 https://ulrichsfossilgallery.com/ Facebook: Ulrich's Fossil Gallery Storefront – Regular hours

### Kinnear

### **R&G Rock and Doll Shop**

Linda Richendifer 10709 US Hwy 26 Kinnear, WY 82516 (307) 856-1532 Storefront – by appointment only Porcelain dolls, rocks, jewelry, rockrelated items

### **Marbleton / Big Piney**

J L Gray Rock Shop 614 E. 3rd Street Marbleton, Wyoming 83113 (307) 260-6443 Facebook: Friends Who Like J L Gray Rock Shop & J L Gray Rock Shop Storefront – March to Dec 15, Mon – Fri 9 – 4 Some weekends & by appointment Rough rock, slabs, cabs, specimens, fossils, jewelry, beads, books, rockrelated gifts, equipment dealer, lapidary supplies, classes

### **Powell**

### **Stone Age Industries**

Bill and Linna Beebe 654 Lane 5 Powell, WY 82435 (307) 754-4681; (888) 331-7625 www.stoneageindustries.com Facebook: StoneAgeIndustries Store by appointment & online shopping Equipment, rocks, gems, grit, polish, lapidary supplies

### **Riverton**

### **Rock Solid Lapidary**

Melvin and Alice Gustin 518 E. Main Street Riverton, WY 82501 (307) 856-1388 https://rocksolidlapidary.com Facebook: rocksolidlapidary Storefront – regular hours Rocks, beads, rock-related gifts, classes

### **Star Valley**

### Star Valley Rock Shop

Fairview, WY 83119 (307) 886-4334 Storefront – Mon – Sat 10 – 5 www.quartzeclipse.com

### Thermopolis

### Ava's Silver & Rock Shop 631 Shoshone Street Thermopolis, WY 82443 (307) 864-3800 Facebook: Ava's Silver & Rock Shop Storefront – Regular hours, closed

### Torrington

Wed

**Torrington Rock Shop** 4102 US Hwy 26 / 85 Torrington, WY 82240 (307) 532-5938 www.torringtonwyrockshop.com Facebook: TorringtonRockShop