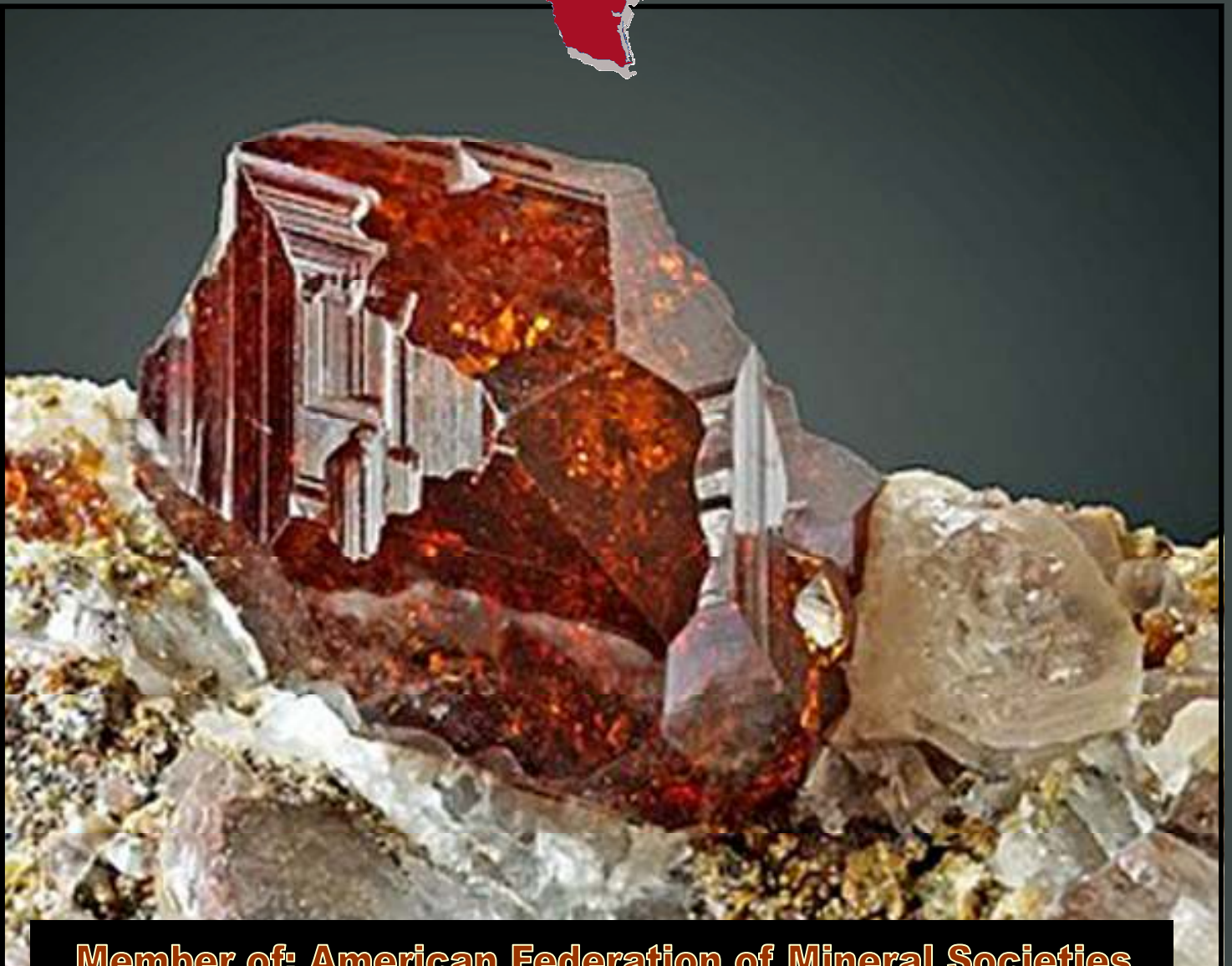


JANUARY-FEBRUARY, 2022

NEWSLETTER OF THE

SOUTH CENTRAL FEDERATION

Of Mineral Societies



Member of: American Federation of Mineral Societies

ON THE COVER

GARNET

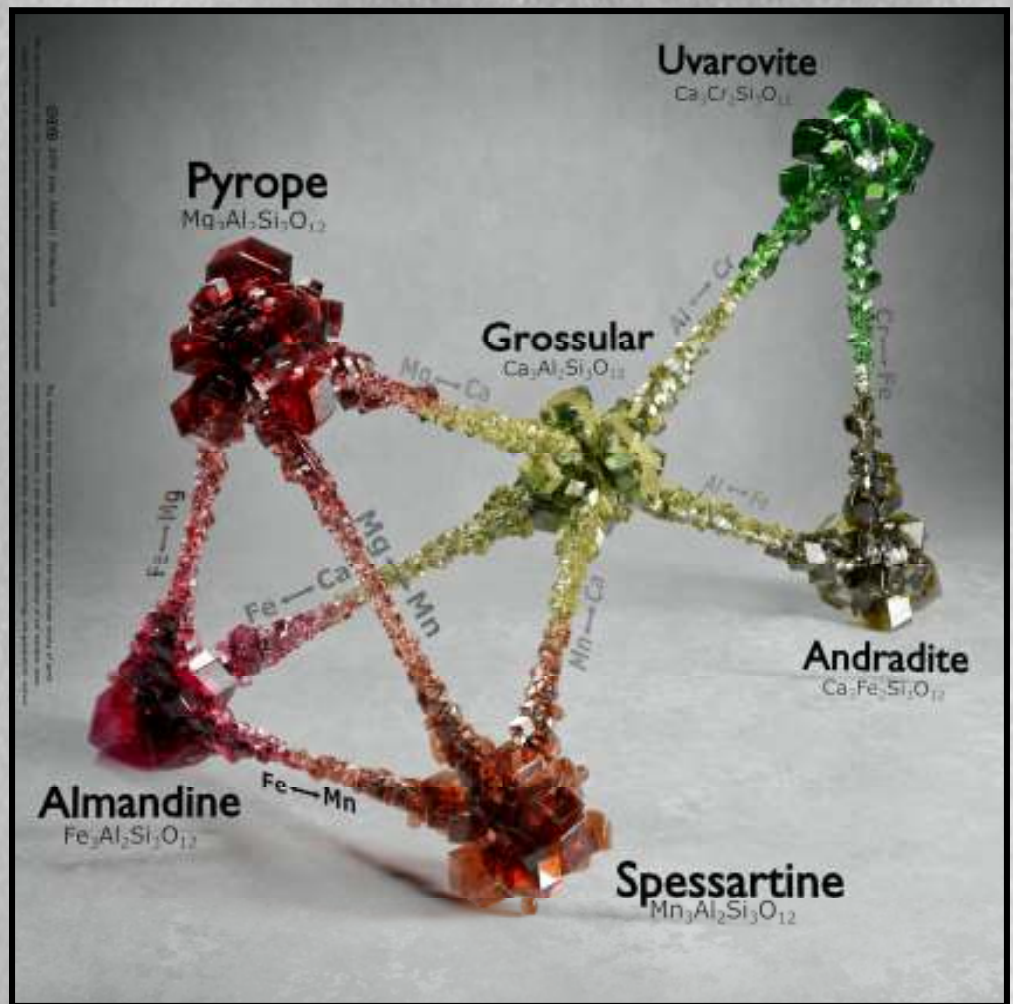
<https://en.wikipedia.org/wiki/Garnet>

Photo at right: End member compositions of the garnet mineral group

This illustration does not represent the whole color and crystal shape variety of garnet minerals present in nature. It also does not show the abundance of end members versus mixtures. For professional studies refer to comprehensive mineralogy and geochemistry sources.

2019 Lina Jakaite / Strike-dip.com

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SOUTH CENTRAL FEDERATION OF MINERAL SOCIETIES, INC.

2020 SCFMS OFFICERS

President: Jerrold Simpson

Executive V-P: Roger Burford

Secretary: Liz Burford

Treasurer: Henry Rojas

Web Master: Don Shurtz

**Exec. Secretary:
Kimberly Brannon**

**AFMS Endowment Fund Raffle:
(temporary) Jerrold Simpson**

**SCFMS Endowment Fund Com.
Treasurer: Empty**

**Nominating Committee –
Ron Carmen**

Past President: Roger Burford

For more information or to send information to the SCFMS or an officer, please email:

scfmsinformation@gmail.com



NEWSLETTER EDITOR/BEAC:

Susan Burch
scfmseditor@yahoo.com



PURPOSE

*To promote popular interest and education in the various earth sciences, in particular those hobbies dealing with the art of lapidaries and the science of minerals, fossils, as well as their associated fields.

*To cooperate with educational and scientific institutions or other groups engaged in increasing knowledge in the earth sciences.

*To cooperate with or become members of similar Federations in the United States and elsewhere.

*To assist in the formation of earth sciences societies in localities where public interest justifies their formation.

E-MAIL ADDRESS CORRECTION AND CHANGES

It is each members responsibility to send your email address corrections to the SCFMS Editor:

Susan Burch,
scfmseditor@yahoo.com

NEWSLETTER PUBLISHED BIMONTHLY

DUPLICATION

In most instances material in this newsletter may be duplicated for non-commercial purposes providing full credit is given. There are exceptions, please do not assume permissions. For Commercial use, the individual author(s) must be contacted for their approval.

A NOTE FROM —THE EDITOR—

THE FINAL DEADLINE, ETC.



For each newsletter the deadline is the 20th of the month prior to scheduled publication. February-April-June-August-October-December all provide the deadline for the following bi-monthly issue. Although, the Editor may chose to adjust the deadline due to circumstances.

As a reminder! Shop hints and tips that are used in this newsletter have not been evaluated for safety or reliability by myself. Please use caution and safety when trying out any new idea. Please, if you have something urgent give me a call, but send newsletter content via email.

ANNUAL SHOW 2022

Hosted by the Gem and Mineral Society of Louisiana in New Orleans.

October 14-16, 2022

ANNUAL MEETING

October 15, 2022; 1 pm

SCFMS WEB-SITE:
WWW.SCFMS.NET

The SCFMS is a member of the American Federation of Mineral Societies. amfed.org



FROM ROGER'S DESK

Hello from the bayou also known as the Boot. I write this at the beginning of January as I again take the office as your President and want to encourage all of our members to help out our Federation and clubs by volunteering to take on one of the open positions we have and provide your input on ways we can improve and grow our clubs again after all of our COVID issues. Membership in our clubs has decreased greatly due to the lack of ability to meet in person for so many of us. I encourage you to stay in contact with other members of your club by phone or email. Remember those members who you have not seen for a long time and make sure they know that your club still exists even if you cannot meet in person, you can always have a Zoom meeting and for those who do not use computers make sure they have the information to join in by phone so they do not feel neglected.



Roger Burford
SCFMS President

Liz and I are getting ready to head to Quartzsite, Arizona for a few weeks and see what new finds there are and I encourage everyone to make that trip at least once, it is not as fancy as going to Denver or that other show in Arizona but if you are looking for the best prices Quartzite is the place to go and not just for rocks, you can find anything under the sun there.

Have a happy New Year, 2022 “will” be better than the last two!



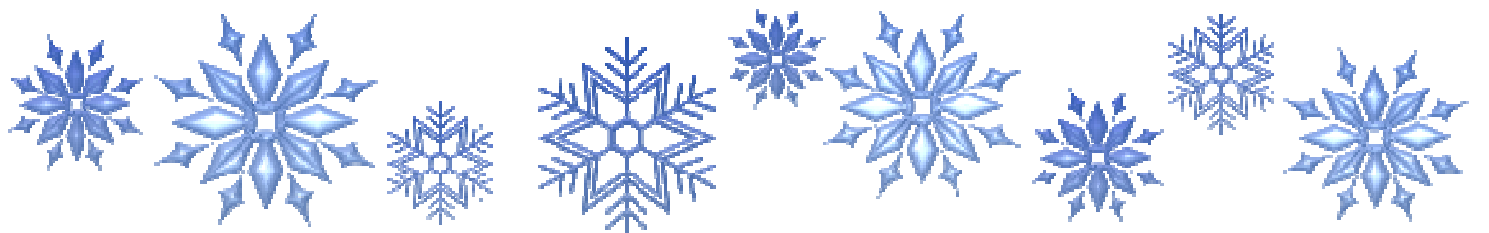
Jerrold Simpson
Past President
SCFMS

WHAT I LEARNED— VOLUNTEERS

As Past President of the SCFMS, I thank everyone for their support. As all of you who volunteers know, serving in such a position is a learning experience. I learned several things during my service as Vice-President then President of the Federation, which is one reason to volunteer. It is not always easy to volunteer for any position because of the time it takes from your regular life. I find it easier to make it a part of my regular life.

One of the hardest jobs of an organization President is to get folks to volunteer. It is generally easier to get volunteers in your local societies because you have frequent contact with each other. It is different with the Federation. Contact with follow volunteers is normally by email, phone call, text and personal contact once a year. As President, you call on people you know to fill positions and normally these are people that are already volunteering. If you will review the present list of officers, you will note that many of them have been involved in the same position for several years.

The Federation needs volunteers to continue serving the member societies. It is my hope that the Federation members continue supporting Roger Buford, President and Don Shurtz, Vice President in the coming year. Try something new & different, volunteer for a federation position, or a local Society position. Who knows, you could learn something new.





First, I'd like to thank you for your patience as we waited for mail in ballots, tallied the votes and had the results confirmed by Ron Carman, who kindly served

as our neutral auditor.

Our candidates agreed, since there were three tickets, to acknowledge the ticket with the highest number of votes as the winner. Before I announce which ticket had the highest vote, I'd like to recognize the valuable contribution each of you has made to the Federation and I hope you'll continue to remain involved. We have open positions which will always need as many willing hands as we can gather. As one of the Club Presidents suggested, our Bylaws Committee could explore the possibility of having offices of VP1 and VP2, expanding the responsibilities of the VP office and (in my opinion) bringing more stability to the core directors of our organization.

The race was impossible to call, right up to the moment the final mailed ballot was received. The winning ticket was only declared so by a margin of ONE VOTE. If any vote had been declared invalid, it could have resulted in a tie and a runoff. I did my best to ensure every unsigned or irregular vote included the email or text exchange to validate its authenticity. Ron confirmed our results. As of January 1, 2022, our new SCFMS Officers are Roger Burford, President, and Don Shurtz, SCFMS Vice President.

Our results were as follows:

Of 45 available votes, we received 32 total votes from SCFMS Officers and Directors, reaching quorum.

Ticket One: Jerrold Simpson and Don Shurtz, 12 votes
 Ticket Two: Roger Burford and Don Shurtz, 13 votes
 Ticket Three: Jerrold Simpson and Roger Burford, 7 votes

Congratulations to our new (or returning) officers!

Merry Christmas, everyone, and much health and happiness for 2022.

Kimberly Brannon, SCFMS Executive Secretary

DEADLINE Looming



The SCFMS 2022 Author and Editor's Contest deadline is fast approaching. Entries must be post marked by January 15, 2022. If you feel your entry will not arrive by the January 15th deadline, please send me an email as to when you sent it so I can be on the look out.

I will be sending an email confirmation that I received your entry in the mail, if you do not receive one, please make sure to let me know you are sending/have sent in entries. Also, anyone who chooses to email their digital files instead of included the CD/flash drive with your mailed entries, must receive an email confirmation that I received the digital files by email to be valid.

After last years results being so slim, I'm looking forward to receiving this years crop of newsletters, articles and poems. The contest info from the last newsletter issue is included on the next page.

Although I don't have an update, I'm sure the website contest is well underway and I will share any information as it becomes available.

Susan Burch
 SCFMS Editor/BEAC



2022 SCFMS Author and Editor's Contest Information

Where has the year gone? It's already time to go through the newsletters and articles you published in 2021 and gather the best of the best. It has always been important to me that everyone who volunteers in any capacity for their club should be honored. As the BEAC for the South Central Federation of Mineral Societies, my part has been to help acknowledge those who feed the main artery in any club, the newsletter editor and authors.

For the past several years the BEAC for the AFMS has been Mark Nelson, who has done an amazing job in my opinion. Here is a shortened breakdown of deadlines he has submitted for the 2022 AFMS contest for bulletins and items published from January-December of 2021. These deadlines will effect our region.

At the 2021 AFMS convention we learned that the new date for the 2022 AFMS Convention will be October 6, 2022, in New Orleans, Louisiana. As a result, our schedules will allow for a full year of bulletins, articles and such. For your information for your editors, the requirements for the 2022 AFMS Bulletin Editors Contest are unchanged from what is posted on the AFMS web site. The AFMS categories are:

1. New Editors
2. Mini Bulletins
3. Small Bulletins
4. Large Bulletins
5. Original Junior Articles for under 12
6. Original Junior Articles for 12 & up
7. Original Adult Articles
8. Original Adult Articles Advanced
9. Original Adult Poetry
10. Original Junior Poetry
11. Written Features (all ages)
12. Drawn Features (all ages)
13. Special Publications

Please remember to provide both a printed copy of your AFMS entries to the AFMS judges as well as a PDF to my office when you submit your entries for judging. Here is schedule information for the 2022 AFMS Bulletin Editor's Contest:

Regional BEACs accept entries published from January through December, 2021.

Regional contests run from 1/1/2022 to 3/5/2022

Regional entries due to AFMS judges on 3/15/2022

Judged entries back to AFMS BEAC by 5/15/2022

AFMS BEAC checks PDF copies, spelling of names and prepares plaques, pins and certificates

AFMS show in New Orleans, LA on 10/6/2022

If you will no longer be your Federation's BEAC in 2021, please forward this to your successor and to your Federation President. Please contact me if you have any questions! If you are a new BEAC or Judge, I'm here to help you through the process. Don't guess – let's talk! If you email me and you don't receive an answer from me in a day or two, call or text me at (909) 996-1784!

Very truly yours, Mark Nelson

That means for the first time in several years, the entries will reflect a full year of publications and the deadline does not pinch quite so much as having to submit your entries in December or even November.

In 2021, we had very few entries due to 2020 being the start of Covid-19 restrictions. Many clubs did not publish a newsletter or even have monthly meetings or their annual show. As we have found a new way of surviving our world, more clubs have added activities. This new world we are in and the new ways we have learned to further our hobby gives me hope we will have a better turnout for this years' contest. The deadline for the SCFMS Author and Editor's Contest is January 15, 2022.

The contest is not just about getting a plaque or certificate. Many times it will give you a feel of how you are doing and how you can improve your bulletin or article. The guidelines for entry are found on the SCFMS.net page and also on amfed.org. Utilize the score sheet to see if your bulletin has all the points the judges will be looking for. Even if it doesn't, enter anyway! In 2006, I had volunteered to be editor for my local club at the time. Not having been an editor before caused me to doubt my work, so I did not enter the contest until 2008 with the bulletins and articles from 2007. The first year and each subsequent, I took the suggestions the judges provided and improved my future newsletters. This resulted in winning quality newsletters, but I got so much more out of it. Honestly, I wish I had entered earlier.

It may seem overwhelming but it's really not. Whether your newsletter is published as a printed copy or strictly an emailed copy, you are eligible to enter. Read the guidelines for the contest and what the judges are looking for on the score sheets. If you've kept an eye out all year, you might just remember the articles or issues of your bulletin that stand out to you. Otherwise, take a little time and read through each issue again. Of course, you should chose those that you think are the best if someone has entered several items, but also enter something for everyone who's contributed. Give them a chance to get acknowledgement for the help they have provided and for yourself too.

For each entry, print three paper copies of the item (the whole page the item is on from the bulletin or for bulletins, the entire issue) and three copies of the score sheet for that item. For bulletins, chose which category you are in by how many pages the majority of your newsletters contain or if you are a new editor, that has it's own category. Then chose your two best newsletters and enter both. Each set of entries will also need a printed list of articles/bulletins you are entering which contains the name of the author; title of the bulletin, article, etc.; month published; and the club's name. Along with the printed copies, you will need a digital copy of the list, the items and score sheets. Please, have a separate file for the item and the score sheet, and place the items from each category in it's own folder. This year, I will accept emailed digital entries, but they must be in the format stated and have everything required for a flash drive or CD digital copy.

Any questions you may have will gladly be answered by myself, Mark Nelson or even one of your fellow newsletter editors. We are all here for each other to further our hobby and help the members of your club get the best out of it. If you've never entered the contest before, please consider doing so, you will be glad you did.

Susan Burch, SCFMS BEAC/Editor

AFMS LAND USE POLICY

1. Adherence to the AFMS Code of Ethics assures compliance with most statutes and regulations governing collecting on public lands and encourages respect for private property rights and the environment. Clubs are urged to read the AFMS Code of Ethics in at least one meeting every year, to publish the Code frequently in the club newsletter, and to compel compliance on club field trips.
2. Individuals and clubs are urged to write their elected representatives and land use management agency supervisors regarding issues of rule making, legislation and enforcement affecting field collecting of minerals and fossils.
3. Individuals and clubs are urged to join and support activities of the American Lands Access Association (ALAA), a sister organization with responsibility for advancing the interests of earth science amateurs with legislatures and land use management agencies.
4. The AFMS will receive a report from ALAA at its annual meeting.
5. The AFMS endorses the principle of multiple use of public lands as a guarantee of continuing recreational opportunities.
6. Wilderness and monument designations are inconsistent with the principle of multiple use. In view of the vast amount of public land already designated as wilderness and monuments, future such designations should be minimal, taking into account the increased demand for recreational opportunities, including rockhounding, created by a growing population.
7. In furtherance of the principle of multiple use, the AFMS believes that laws, regulations and rules established by relevant governmental authorities should be designed to allow freest possible access to all public lands, coupled with minimal restrictions on the recreational collection of minerals, fossils, gemstone materials and other naturally occurring materials.
8. A right to collect minerals and fossils on public lands should be protected by statute.
9. The AFMS urges its members to work with any or all government authorities to achieve a good working relationship in order to improve the public image of recreational collectors.



AFMS CODE OF ETHICS

I will respect both private and public property and will do no collecting on privately owned land without the owner's permission. 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— fences, signs, buildings. I will leave all gates as found. I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area. I will discard no burning material—matches, cigarettes, etc. I will fill all excavation holes, which may be dangerous to livestock. I will not contaminate wells, creeks or other water supply. 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 and public image of rockhounds everywhere.

SIMPSON'S SAFETY STUFF

I wrote a poem about a piece Linda and I found in McMullen county several years ago. (We still have it by the way). I mentioned it was a "hundred pounder". It wasn't quite that large but felt like it. I did roll it over a small hill, into the road. I lifted one edge up on the bumper of the car and then rolled it into the trunk. We were driving a small car and the rock was large enough to make the car noticeable lower. The piece was too heavy for me to lift off the ground by myself.

This brings me to one point of this article. Do not try to pick up a piece that is too large for one person to handle when you are by yourself. It is pretty obvious as to why you should not do this. A person can pull a muscle, have the rock fall back and break an arm, leg or foot or any combination of these. You may not be alone at the collecting site; however the others may be too far away to help you load the item. Normally the collecting sites are a long way from emergency help and you would be stranded and suffering needlessly.

Be sure you have the proper tools. I once observed several adult men attempting to remove Llanite from a roadside outcrop. This site is a few miles north of Llano, TX. They had picks, shovels, pry bars and hammers. The elderly rock hound with the brand new, 6' steel pry bar broke it and went stumbling backwards. Fortunately he did not fall on the rocks or into the highway. The point? Know your limits and the limits of your equipment. Use caution where you are collecting. The spot mentioned is on a two lane highway and depending on the time of day, traffic can be heavy. The site is also just over the crest of a hill in the south bound lane. Most of the good, easy Llanite to collect is already gone.

Do not overload your vehicle. Linda and I used to own a Toyota Corolla. Our first collecting trip to west central Texas included the site mentioned in the above paragraph. At this time we were about in the middle of our trip. We collected several medium sized pieces and a bucket of small pieces. We stopped at several fossil sites on the way back to Corpus. By the time we arrived home, the rear wheel openings were so far down that you could not see the top of the tires. All you could see was the rims at the top! A little overloaded? Yes and we were very lucky to have gotten home without an accident or blow out which could have caused an accident. Needless to say our gas mileage was not so good on

the way home. We have an SUV now so it is harder to overload even though we have tried a time or two.

Texas is full of collecting sites that have a lot of perils. You can prepare for those perils however if you give it a little thought. Wear those snake boots or leg covers. I have seen several large rattle snakes while collecting. Wear that long sleeve shirt. Those cacti and mesquite saplings have thorns as do other plants. Wear long pants, preferable heavy jeans for the same reason as above and in case you need to kneel down or fall down. Also the long sleeve shirts and jeans will protect you from the sun. Wear a large brim hat or a hat that will cover your ears and protect your face. Baseball caps have a 2 SPF rating so give it up for a couple of hours while collecting. Wear that sun block. Yeah I know it is not manly or macho/macha (women included) to wear funny looking caps and cover up but you can pay for it later when they are cutting those melanomas off your face, arms and back. I have been lucky so far and have not had one on my face. However a friend who did have one cut off his face, looked at my arm and said you better have that cut off. He was right and I take precautions and see the skin doctor every three months.

Does it sound like everything I write in these safety articles is from personal experience? A large number of them are. For an educated person, I have done some really stupid and unsafe things from time to time. We pretty much all have. Maybe these articles can help someone avoid being injured or doing things in an unsafe way. I hope so.

If you have any items that might need to be included in this column, please let me know. I will include them and give you credit for the information. My contact information is jsimpsonclaims@live.com. Better yet, you can write it and contribute to the newsletter.

If you forget everything else in the article, take plenty of non-perishable food and plenty of water when you rock hunt, wherever you rock hunt.





AN 8TH CONTINENT? Matthew Lybanon, Editor, MAGS Rockhound News

11-12/2021 About 3,500 feet under the south Pacific sits a piece of land adjacent to New Zealand 2 million square miles in size—about half as big as Australia. But scientists can't agree on whether this submerged land mass—a collection of submerged chunks of crust called Zealandia (or the Maori name Te Riu-a-Māui) that broke off an ancient supercontinent called Gondwana about 85 million years ago,—is a continent or not. A team of geologists declared it one in 2017, but not all researchers are convinced. Nick Mortimer, a geologist from New Zealand's GNS Science who led the 2017 group, explains that a continent should have clearly defined boundaries, occupy an area greater than 1 million square kilometers, be elevated above the surrounding ocean crust, and have a continental crust thicker than that oceanic crust. Zealandia meets all those stipulations. The problem, however, was that until recently, the oldest crust and rock ever sampled from Zealandia was just 500 million years old, whereas all the other continents contain crust that is 1 billion years old or more. But a recent study found that part of the submerged continent is twice as old as geologists previously thought, which could boost Mortimer's argument. Tiny mineral grains taken from granite rocks have led to a potential breakthrough in ancient continental reconstructions. The geologists behind the recent research (published in *Geology*) looked at 169 chunks of Zealandia granite, which were found under New Zealand's South and Stewart Islands. Granite forms when magma crystallizes deep within the Earth's crust. The granites were brought to the surface by uplift of the Zealandia continent in response to earthquake activity along a plate boundary over millions of years. By extracting microscopic crystals from the granite, the team was able to determine both the age of the crystals themselves and of the crust in which they formed. The results showed that crust was once part of another supercontinent known as Rodinia, which formed between 1.3 billion and

900 million years ago—far earlier than 500 million years ago. Dr Rose Turnbull (also of GNS Science, and one of the authors of the *Geology* article) says that a key finding in this study was the unique isotopic signature measured in microscopic grains of zircon ($ZrSiO_4$), a mineral that is found in all granites. The isotopic composition of zircon is used in geology to understand deep time and can be used to reveal what the Earth's crust looked like both at and deep below the surface. “To use a human analogy, all of today's eight continents have older ancestors such as Gondwana, Laurasia, and Pangea. “The new study has enabled scientists to place Zealandia in the ‘family tree’ of continents descended from Rodinia.” With this new information, Zealandia may yet turn out to be a ‘missing link’ between South China, Australia, and North America—and this opens up the position of South China and Zealandia within Rodinia to new international scrutiny, Dr Turnbull says. References: Ringwood, M.F., et al., 2021, Phanero-zoic record of mantle-dominated arc magmatic surges in the Zealandia Cordillera: *Geology*, v. 49, p. 1230– 1234, <https://doi.org/10.1130/G48916.1> Mortimer, N., et al., 2017, Zealandia: Earth's Hidden Continent: *GSA TO-DAY*, v. 27(3), p. 27-35, <https://doi.org/10.1130/GSAT-G321A.1>

Article via AFMS newsletter Dec 2021/Jan 2022; Photos: Above left, Google search on the Internet. Below, Waitaki Whitestone Geopark.



BIG SPRINGS PROSPECTORS CLUB NEWS

Prior Rockhound of the Year Recipients:

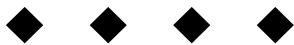
Dorothy Long was a member from 1984 until her passing in 2015. She was always willing to help the club in many ways and her winning personality always made her an asset to our membership. We are proud to nominate her as rockhound of the year for 2015.

Dotty Long has been a member of our club since 2007, is in charge of our snack bar at the Gem & Mineral Show for many years. She is always willing to tackle any task that is ask of her and is always such an asset to our club. We are proud to recognize her as Rockhound of the year for 2016.

Betty Roberts joined our club in 1998, moved away in 2009, then returned in 2016 and has been an asset to our club. She demonstrates making glass beads at our show each year as well as always sharing her knowledge with new members. She has demonstrated at area gem shows and is a good representative of our club. We are proud to honor her with Rockhound of the year 2017.

Marvin Lamb has been a member of our club since 1973, He ran the spinning wheel at our Gem Show for 30 years from 1985 until 2015 when failing health made it impossible to do the job, but he still loved to watch the kids. He did not work the rocks but loved the fellowship, attending area shows, field trips, and all club activities until his passing in 2018. We are proud to make the nomination of Rockhound of the year for 2018.

Morgan & Cody Lefever joined our club in 2019 and have been very active in all club activities since that time. Though new to the club, they both pitched in to help in any thing asked of them. They were eager to learn how to make cabs, identify rocks, and other lapidary skills. While they haven't been members long we feel they deserve the nomination of Rockhound of the year for 2019.



Thank you to Lola Lamb for compiling this information. Be sure to turn in your club's Rockhound of the Year! I would love to share that in the newsletter.
Susan Burch, SCFMS Newsletter Editor/BEAC

Rocks good enough to eat...

A preview of the breakfast, dinner and desert rock food tables scheduled to be displayed at the 26th Annual East Texas Gem and Mineral Society show, January 21-23, 2022.

See the show flyer on the next page.





THE EAST TEXAS GEM AND MINERAL SOCIETY

PRESENTS

The 26th Annual Gemstone and Jewelry Show

TYLER ROSE GARDEN CENTER

420 SOUTH ROSE PARK DRIVE
TYLER, TEXAS



Gemstones • Jewelry • Minerals • Fossils • Supplies

JANUARY 21 - 23, 2022

SHOW HOURS:

Friday: 9 am - 5 pm

Saturday: 10 am - 6 pm • Sunday: 10 am - 5 pm

ADMISSION:

Adults: \$5.00

Children and Students: \$1.00

Colorful Fluorescent Mineral Display

Silent Auction on
Friday, Saturday & Sunday

Hourly Door Prizes

Grand Prize Drawing

Wheel of Fortune

Game for the Children

Lapidary Demonstrations

Flint Knapping

Gemstones

Gold and Silver
Jewelry

Minerals

Fossils

Cut and Uncut Stones

Geodes

Wire Wrapping Demos

Lapidary Material

Raffle Prizes

The Rock Food Table • www.rockfoodtable.com

WWW.ETGMS.ORG

Be sure to send in your show flyers for inclusion in the newsletter! Susan

AFMS JUNIORS PROGRAM

Lora R. Hall, AFMS Juniors Program Chair

As the new AFMS Juniors Chair, I thought I would take this opportunity to introduce myself. I spent my early career as a Park Ranger for the National Park Service in natural and cultural education and retired as the Chief of Resource Management at a little-known swamp in Arkansas. From the Blue Ridge Parkway to Craters of the Moon, I worked at 7 different locations. The geological parks were my favorite; the swamps like Big Thicket, fell much lower on my list. I retired from the Park Service to be a Mom and homeschooler for two awesome sons, who are now in college. I also manage my husband's optometry office. Other than serving my local club, the Hellgate Mineral Society, I volunteer for Missoula County 4-H as a historic fire-arms instructor and geology project leader.

I am reaching out to you to let you know of some recent changes in the AFMS Future Rockhounds of America (FRA) Juniors Programs. The Juniors Programs Chair was previously held by Jim Brace-Thompson. I ask that folks be patient as I get up to speed as the Juniors Chair. Needless to say, it can be challenging to step into a position that was held by someone for two decades and I want to thank Jim Brace-Thompson for twenty years of dedicated service.

We have an exciting year in store including the launch of a brand-new interactive Juniors website! The website will highlight the wide variety of programs available within Future Rockhound of America including Rock Pals rock exchange, partnership ideas, and the new national youth volunteer award.

The biggest news is we now have a dedicated Juniors email address! Please send email corresponded to youth@amfed.org

I also want to share that we have put the AFMS/FRA Mascot and Oath Contests on hold as we navigate these changes. I know this was advertised for the first time in the Nov/Dec newsletters of a several Regional Federations. Any entries already submitted will be automatically entered when the contests resume but to date, I don't believe we have received a single entry. If you know of a junior who submitted an entry, please let me know so I can track it down.

If you have clubs/societies using the badge program, we have also made some changes to make it easier to

request badges. There is now no need to copy or scan the completed check list sign-off forms and mail them in. Just email your request and be sure to include:

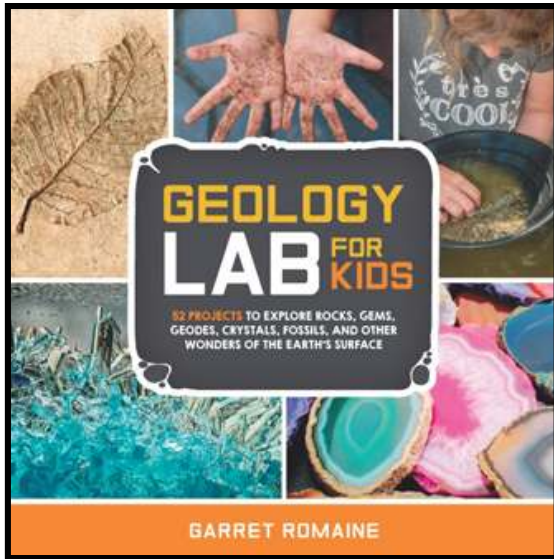
- juniors name(s) and the badge(s) they completed
- your club or society name
- your name and preferred mailing address
a phone number in case of have questions

Be sure to note if you need Rockhound patches or Rock Star pins!

Thank you for the opportunity to serve you and the youth of your Regional Federation, Club, or Society. Please feel free to reach out to me with questions or if I can help in any way.

Sincerely yours,
Lora R. Hall
AFMS Juniors Program Chair
youth@amfed.org





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<https://www.amazon.com/Garret-Romaine/e/B0037I87T8>

LAB 12 DIVINING DENSITY

Learn how to determine a mineral's density, sometimes called specific gravity, by measuring how heavy it is in relation to how much space it takes up. You can use your measurement as another way to identify a mineral, because almost every mineral has a slightly different density.



MATERIALS

- Small digital scale, up to 10.5 oz (300 g)
- Small mineral specimen, such as calcite or quartz
- Lab notebook and pen or pencil
- Small plastic container, such as a margarine tub
- Water
- Paper clip or piece of wire



Safety Tips - Don't cut yourself straightening or bending the paper clip.



PROTOCOL

STEP 1: Zero out your digital scale.

STEP 2: Weigh your specimen dry and record the weight in your laboratory notebook.

STEP 3: Fill your plastic tub about three-quarters full with water.

STEP 4: Place the tub and water on your scale and suspend the paper clip in it, then zero the scale.

STEP 5: Wrap the paper clip around your specimen.

STEP 6: Suspend your mineral in the water. Do not allow the specimen to touch the sides of the tub or the bottom of the tub. Record the new weight.

STEP 7: Divide the larger number by the smaller number. Compare your specific gravity measurement against a reference such as the minerals database at www.mindat.org for your mineral and see how close you got.



Creative Enrichment

1. How can you measure larger objects?



THE SCIENCE BEHIND THE FUN

Mineralogists use a “key” to identify minerals, sorting samples by color, luster, streak, hardness, and density, among other characteristics. Field geologists use the term *heft* to guess density. If you pick up a rock in your hand and drop your hand a little, then raise it back up, you can feel how heavy it is naturally. But in the lab, you can get an exact reading that will let you compare against other rocks and minerals that aren't the same size. Density is a good thing to know, because a pure sample should have a characteristic density.

Density is mass divided by volume. The key to understanding density is that you are measuring weight for a standard volume: 1 cubic centimeter. The problem is that unless you are working with a cube or a rectangle, it's hard to use math to learn the volume.

Another way to measure volume is to put the sample in a measuring glass and see how much higher the water level moves. This is called *displacement* and it takes a lot of practice to do it right. When you are using very small rocks, the difference in the water level is hard to see. This lab makes it easy to measure density, even for small specimens—but you can't measure a mineral that will dissolve.

According to legend, the Greek scholar Archimedes discovered the concept of displacement when he got into a full bathtub and watched the water overflow. He used that knowledge to determine density.

BENCH TIPS BY BRAD SMITH

RAISING A CABOCHON—When a cabochon sits too low in a bezel, the bezel can hide a lot of the stone. The solution is to either sand down the bezel height or boost up the stone. But if you choose to raise it up, the question is what is the best material to use ?

I was taught to use fine sawdust but now think that might be a problem when used in rings. I reason that rings will frequently get wet, which would cause the sawdust to swell in size and push the stone against the bezel. Then when the sawdust dries out, the stone would be a little loose.

In any case, I now prefer to insert a flat sheet to boost up my stones. It can be a scrap of metal or some plastic from product packaging or old credit cards. In either case, just cut a piece to loosely fit into the bezel and drop in the stone (with some dental floss) to check it's height.

TRANSPARENT CABS—When bezel setting a transparent cabochon in silver, I usually cut out the back of the bezel to allow background light to show off the colors and patterns in the stone. If this is not possible or appropriate, I worry that the silver bezel will tarnish under the stone and will ruin its brilliance. What to do?

My solution is one extra step before setting the stone. I place a piece of thin silver Mylar plastic under the stone to act as a mirror that will never tarnish. Mylar is readily available in craft and gift wrap stores, or in a pinch from a party balloon supplier. You may even want to experiment with using colored or patterned Mylar (i.e. diffraction pattern) under some stones.

Please, check out more Smart Solutions for Your Jewelry Making Problems

[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)



UPCOMING SHOWS 2022

January

Fredericksburg (Fredericksburg, TX) 12-14

East Texas (Tyler, TX) 21-23

February

Williamson County (Georgetown TX) **Usually 2nd weekend in Feb**

Clear Lake (Pasadena, TX) **26-27**

High Plains (Plainview TX) **Don't know yet. Can't find info or people**

March

Gulf Coast Gem & Mineral Society, Corpus Christi, TX 05-06, R.M. Borchard Fairgrounds, Robstown, TX

Big Spring Prospectors Club, Big Spring, TX
Usually 1st weekend in Mar., Howard Co. Fair Barn

Southwest Gem & Mineral Society, San Antonio, TX 12-13, venue to be announced, San Antonio, TX

NOTICE: Due to Covid-19, please, be sure to double check to see if a club is still holding their events before attending.

Linda Simpson



Thank You!

To those who helped make this issue possible...

**Roger Burford
Jerrold Simpson
Kimberly Brannon
Matthew Lybanon
Lola Lamb
Garret Romaine
Brad Smith
Linda Simpson**

**DEADLINE FOR THE
MARCH-APRIL, 2022 NEWSLETTER
WILL BE FEBRUARY 20, 2022**