

Pleasant Oaks Gem & Mineral Club of Dallas, TX

Chips and Chatter



Member: South Central Federation of Mineral Societies



Affiliated: American Federation of Mineralogical Societies



August 2021

Vol. 55, Issue 8

1st Place, 2019 SCFMS Mini-Bulletin
1st Place, 2020 SCFMS Mini-Bulletin
1st Place, 2017 AFMS Mini-Bulletin

AUGUST'S NEW BIRTHSTONE – SPINEL

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

The newest birthstone to the American birthstone list was added in 2016. Spinel is the newest addition and joins peridot and sardonyx as recognized birthstones for August. Spinel comes in a variety of colors ranging from clear to red, peach, pink, violet, blue, and green. Until recent times, many large, red spinels were recognized as some of the most important rubies in existence. No, that isn't a typographical error – spinel pieces, including several large spinels, were often confused with important rubies. Two such examples are the 170-carat Black Prince Ruby in the Imperial State Crown of England and the 398-carat that is on top of the Imperial Crown of Russia commissioned by Catherine the Great in 1763. It wasn't until 1783 that spinel was recognized as a separate mineral, unique from ruby. Spinel and ruby are similar in many respects. Spinel has a Mohs hardness of 7.5 to 8.0 while ruby has a Mohs hardness of 9.0. The chemical composition of spinel is magnesium aluminum oxide ($MgAl_2O_4$) which is similar to ruby's chemical composition, aluminum oxide (Al_2O_3). The specific gravity of a typical spinel is 3.58 – 3.61, but a spinel from a zinc-rich environment (as a trace element), can have a specific gravity as high as 4.40. Thus the specific gravity of spinel spans the specific gravity range of ruby which is 3.97 to 4.05. They are sometimes found next to each other in mines, and both derive their red color from trace amounts of chromium.



The largest known spinel is the Samarian Spinel and comes in at an amazing 500-carats. It was once in India. It is now part of the Iranian Crown Jewels. The gem has a hole through it. One story attributed to Shah Nasser al-Din Qajar was that the hole was used for a cord to hang the stone from the biblical golden calf which the Israelites made during the period that Moses was absent to receive the Ten Commandments. Although the Samarian Spinel may be the largest in existence, a 52 kg (114 lbs, 260,000 carats) red spinel crystal was found in October 2007 in a farmer's field in Mahenge, Tanzania. As word of the large crystal leaked out, many miners and others descended on the area to try to acquire the gem or at least a piece of the gem by fair or foul means. In near-riot conditions, the miner and a motorcycle driver escaped into the wilds. After hiding out for several days, they made their way to Arusha,

Tanzania. It was estimated that the yield of the spinel could be as low as 3%, which is still 7,800 carats. One piece was believed to be able to cut a 50-carat spinel.

Spinel has been found in many places throughout the world. These include Sri Lanka, Afghanistan, Tajikistan, Myanmar. More recent finds include Tanzania (several locations), Viet Nam, and Canada. The Canadian spinels, found in 2018, are a bright blue caused by the trace element cobalt. In addition to all the places where natural spinel can be found, synthetic spinel has been available since the 18th century. Synthetic spinel is commonly formed by the flame-fusion (Verneuil) process or the flux growth process. More recently, synthetic spinel plates have been formed by the sintering process. Sintering fuses particles together using pressure and heat, but without heating the materials to liquefaction. Sintering can happen naturally in the formation of minerals.

References:

- Spinel, <https://www.dalesjewelers.com/blog/2019/08/06/spinel-augusts-newest-birthstone-has-a-confusing-colorful-history/>
- Spinel, Wikipedia, <https://en.wikipedia.org/wiki/Spinel>
- Giant Red Spinel Crystal Discovered in East Africa, <https://www.prweb.com/releases/gemstones/spinel/prweb559185.htm>
- An Introduction to Synthetic Gem materials, <https://www.gia.edu/gem-synthetic>

Picture:

- Picture from Rob Lavinsky, [iRocks.com](https://www.iRocks.com) – CC-BY-SA-3.0, from Wikimedia Commons, <https://commons.wikimedia.org/wiki/>

President's Message

From the July/August SCFMS Newsletter

This year has flown, we are already into July and it does not seem to be slowing down. I sent out a call for reports the first week of July. They are due on the first of August so that means we only have a few more days to get our reports to SCFMS Secretary Liz Burford. She needs the reports so she can get them all together into a meeting packet for the upcoming SCFMS annual convention and meeting.

As you all know, our convention that was to be held earlier this year was canceled. We then were planning to have a Zoom meeting in July. A few weeks ago I received a call from Walter Beneze, Lubbock Gem & Mineral, called and advised that the Lubbock Society had volunteered to hold the SCFMS Annual meeting at their upcoming show. The show will be held September 25 & 26 2021 at the Lubbock Memorial Civic Center, 1501 Mac Davis Lane, Lubbock TX. The show will start at 10:00 am Saturday and Sunday. It will go until 6:00 pm Saturday and 5:00 pm Sunday. *[Editor's note: A poster for the show is available at http://www.scfms.net/2021_Show_Flyer.pdf]*

Roger, EXC. VP and I, along with our wives Liz (Roger) & Linda (Jerrold), attended the AFMS/Northwest Federation Convention and show in Big Piney, WY at the end of June. Linda & I flew to Salt Lake City and drove out to Big Piney. Roger & Liz drove. Both the show and convention were a success and very enjoyable. There were no motels in Big Piney so we stayed in Pinedale, about 20 miles

from the show. It was a different experience seeing different materials, being sold by the dealers, than we normally see at our SCFMS shows. On the last day, we attended the show, we were on our way from our motel to the show arena. We came over a hill and ran into a traffic jam, Wyoming-style. There was a herd of cattle coming down the highway toward us. There were about 200 head of cattle and about 15 or so cowboys and cowgirls herding them. We had to sit and wait until they were moved off the highway. We have lived in Texas for over 30 years and had to go to Wyoming to see a cattle drive!

I am looking forward to seeing all of you at the Convention in Lubbock in September. This will be the third time in the last few years that Lubbock has sponsored an SCFMS convention. If anyone wants to know how to host a Federation meeting just contact Lubbock Gem & Mineral Society. They have lots of experience. Also, there are some written suggestions on the subject that can be obtained from Directory Chair, Linda Simpson, SCFMS Executive Secretary, Kimberly Brannon, or Walter Beneze Lubbock Gem & Mineral. Their contact information is in the SCFMS Directory.

Have a safe summer and enjoy this edition of the SCFMS Newsletter.

Jerrold Simpson, 2021 President SCFMS



Bench Tips from Brad Smith

Reprinted by permission of the author, Brad Smith. Received as an email from Brad Smith

SEPARATING DISCS

Separating Discs (also called Cutoff Wheels) are inexpensive and do a great job cutting or shaping steel. You can use them to sharpen tool points, cut piano wire to length, make slots, and sharpen worn drills. Other uses include modifying pliers and making your own design stamps.

My preference is the one-inch diameter size. Be sure to hold the wheel firmly so nothing moves to break the disc, and definitely wear your safety glasses. Those are little flakes of steel coming off the disk.



BTW - Separating Discs are rather poor at soft metals like copper, silver and gold. Soft metals clog up the cutting edges.

DEBURRING JUMP RINGS

When cutting jump rings from large gauge wire for chain making, you'll notice the saw leaves a small burr. An easy way to remove these is to tumble the rings with some fine-cut pyramids. It's best not to tumble for a long period with the pyramids because it will remove the polished finish from the wire.

No tumbler, no problem. You don't actually need a tumbler. I just put a handful of pyramids in a wide-mouth plastic jar and shake for a bit. You can find these pyramids in the tumble finishing section of most jewelry supply catalogs.

Work Smarter & Be More Productive With Brad's "How-To" Jewelry Books



Shows and Activities – Upcoming Show and Activity Dates

Please note that many shows are being canceled in response to health concerns associated with COVID-19

Check with the show contact to verify the show status

- Aug 14-15, Gonzales, LA, Baton Rouge G&MS; Larmar Dixon Expo Center – Trademart Bldg., www.brgemandmineral.org
- Aug 21-22, Bossier City, LA, ARKLATEX G&MS, Bossier Civic Center, dglasner2001@yahoo.com
- Sep 25-26, Lubbock, TX, Lubbock G&MS, Lubbock Memorial Civic Center, www.lubbockgemandmineral.org -hosting the SCFMS CONVENTION, Registration for convention Editor/Webmaster Breakfast and/or Awards Banquet (includes 2-day show entry at: https://www.lubbockgemandmineral.org/content.aspx?page_id=4002&club_id=360346&item_id=1455874)

Ref:

- July-August 2021 SCFMS Newsletter
- Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

VISIT AN AREA CLUB

[Arlington Gem & Mineral Club](#), meets the 1st Tuesday of each month at 7:30 pm, 1408 Gibbins, Arlington, TX
[Cowtown Gem, Mineral, & Glass Club](#), meets the 2nd Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth
[Dallas Bead Society](#), meets 1st Saturday of each month at 10:00 am at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX
[Dallas Gem & Mineral Society](#), meets the 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop)
[Dallas Paleontological Society](#), meets 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244
[Fort Worth Gem & Mineral Club](#), meets 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth
[Oak Cliff Gem & Min Soc.](#), meets the 4th Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas,
[Pleasant Oaks Gem & Mineral Club](#), meets the 1st Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland
[Wild West Bead Society](#), meets 3rd Tuesday of each month at 6:30, Wild Beads, 2833 Galleria Dr., Arlington, TX

Simpson's Safety Stuff

DON'T LICK THAT ROCK!

From the July/August SCFMS Newsletter



I have noticed some people pick a rock up off the ground and lick it. This action is to wet the piece to help identify the mineral or rock. That is a dangerous thing to do. It could actually kill you or make you



very ill. Some of the most dangerous minerals and rocks, a lot of us will never see or come into contact with. Some are very rare and are found behind glass in museums and pose no danger to the average person. Others like Galena, Asbestos, and Torbernite, are more common and may appear in the average person's life. Besides being dangerous to lick a rock, you can get dirt on your tongue that does not taste good. This may cause you to grab for a glass or bottle of water to wash your mouth out. WATER! You have WATER? Why not use that water to wet the rock with instead of licking it? Once you have handled the rock or specimen, you should wash your hands, especially before eating. The following is a shortlist of very dangerous minerals to handle or even breathe around:

- Galena is the principal ore of lead and forms glistening silver cubes with an almost perfect shape. Contact with this mineral may lead to lead dust exposure. We all have heard of babies getting lead poisoning by biting items painted with paint containing lead. Lead is also in the battery in your car.
- Asbestos is not a manmade product. Where other minerals act as toxins, accidentally poisoning victims, Asbestos conducts mechanical sabotage on the human lung. A few years ago there was a lot of news about asbestos being in the floors and ceilings of many commercial buildings. A lot of money has been spent removing the material from those buildings.
- Arsenopyrite is fool's gold but with a huge difference. It is arsenic iron sulfide, the same type of mineral as fool's gold (Pyrite) but with a heavy addition of arsenic. Just handling the mineral brings you into contact with unstable sulfuric arsenic salts.
- Torbernite is a prism-shaped green crystal that forms as secondary deposits in granitic rocks. These crystals are composed of uranium. The crystal blooms were used by prospectors as indicators of uranium deposits. Because the crystals form in granitic rocks, torbernite may be present in your granite countertops.

- Stibnite is antimony sulfide but looks like silver. Because it looks like silver, the huge, shining crystals of this unstable compound were fashioned into eating utensils. Several people were killed before it was discovered the utensils were the cause of the deaths. Stibnite samples should be handled with care. One should wash their hands after handling samples of this dangerous mineral.
- Orpiment is made of arsenic and sulfur. These lethal crystals are found growing in mineral formations under the surface and often near hydrothermal vents. Just holding the crystals in your hand can release the neurotoxic powder. This was once used in ocher artist paints.
- Cinnabar (mercury sulfide) is the most toxic mineral on earth to handle. The name means dragon's blood and is the main ore of mercury. Cinnabar has been used for food dishes, carving, and even medicine. Mercury is known for building up to toxic levels in seafood, especially billfish like swordfish.

Photos of these minerals, for identification purposes, were intentionally not included. Additional information on these minerals and photos can be found by Googling "10 most deadly rocks and minerals". When you go on a field trip to collect rocks and minerals, always carry a water bottle, full of water, to dampen the stone you collect to help in identification. A spray bottle works well. If I am going to be out for several hours, I sometimes use a camelback water pack. I always carry at least two gallons of water, in addition to drinking water, in my vehicle. The extra water is stored in clean containers and is drinkable in case of an emergency. If you go to a mine site where some of these minerals may be present, do not pick up things you do not recognize without asking the trip leader. You might want to carry rubber gloves also. Always wash your hands with soap and water prior to handling food while on a collecting trip.

There are other dangerous rocks and minerals not listed here. The best way to learn more about these is to read your favorite rock and mineral field guide and to ask an expert. Most Gem & Mineral Societies have geologists as members. The SCFMS has several geologists and other knowledgeable members that can help identify dangerous rocks and minerals. Happy hunting and remember

"DON'T LICK THAT ROCK OR MINERAL".

Jerrold Simpson

PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

The July IGEM show has come and gone. It was a good show, but we could have used more people from the club doing demonstrations and sales. The next IGEM will be October 8 -10 at Market Hall. Plan for set-up on Wednesday, October 6. Several people expressed an interest in joining POGMC – we hope to see them at the August 5 meeting. This is the real reason to participate in the IGEM show – to show and interest people in our hobby and club.

CLUB OFFICERS FOR 2021

President: Ling Shurtz
1st VP, Programs: Carolyn Grady
2nd VP, Field Trips: Open
Secretary: Cheryl Ogletree
Treasurer and Editor Don Shurtz
E-mail: don.shurtz@gmail.com,
L.SHURTZ@gmail.com

MEETING MINUTES

July 1, 2021

The July meeting was a very successful BBQ potluck dinner. There was no business transacted at the meeting, just food, talk, and fun. No minutes were taken nor required for the July 2021 meeting.

PRESENTATION REVIEW

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

The July meeting was our annual 4th of July celebration with a BBQ potluck dinner. We had a lot of fun and talked a lot about rockhounding and similar matters, but there was no formal presentation.

AUGUST MEETING

AUGUST 5 starting at 7:30 PM

There will be a series of hands-on activities including an introduction to cabochon making and mineral identification.

VISITORS ARE ALWAYS WELCOME

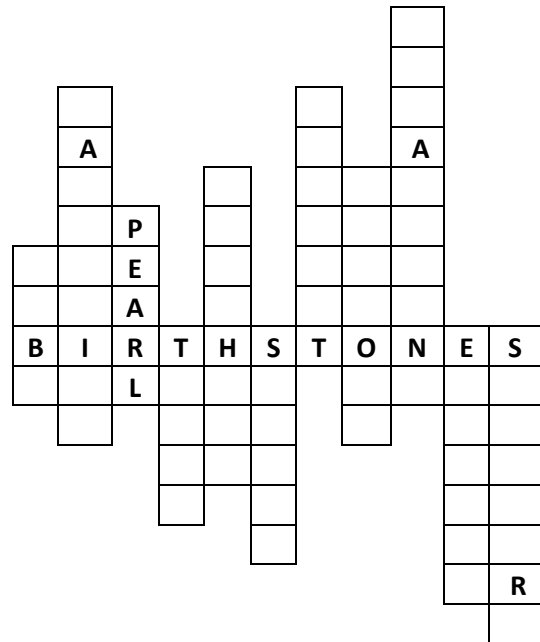
Copyright Information: This issue of the Chips and Chatter is copyright © by Don Shurtz. Unless otherwise noted, permission is granted for noncommercial reproduction of articles provided they remain basically intact and credit is given to the author and original source. Where noted, the author retains the copyright and must be contacted for permission to reproduce the article. All articles may also be used as reference provided citation is given.

Word Fill Game - Birthstones

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

In the next column, fill in the appropriate birthstones to fill in all of the blanks. A list of birthstones for each month is provided below, but not all birthstones are necessary to complete the puzzle.

JANUARY	GARNET
FEBRUARY	AMETHYST
MARCH	AQUAMARINE, BLOODSTONE
APRIL	DIAMOND
MAY	EMERALD
JUNE	PEARL, MOONSTONE, ALEXANDRITE
JULY	RUBY
AUGUST	PERIDOT, SPINEL, SARDONYX
SEPTEMBER	SAPPHIRE
OCTOBER	TOURMALINE, OPAL
NOVEMBER	TOPAZ, CITRINE
DECEMBER	TURQUOISE, ZIRCON, TANZANITE

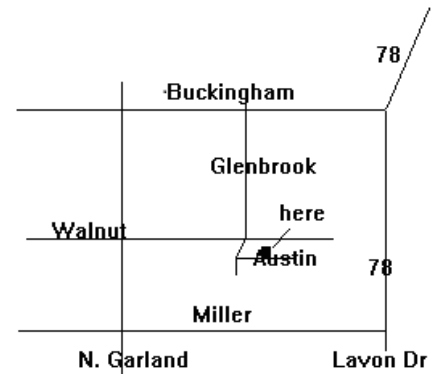


PLEASANT OAKS GEM and MINERAL CLUB of Dallas



Meetings
 First Thursday of each month, 7:30 PM
 Garland Women’s Activities Building
 713 Austin St., Garland, TX
 (Northeast corner of Austin & Glenbrook)

Membership
 Single Adult: \$16.50,
 Junior: \$5.00, Family: \$27.50
 (Plus badge fee for new members)



PURPOSE: The Pleasant Oaks Gem and Mineral Club of Dallas is organized for charitable and educational purposes to promote interest in the various earth sciences, particularly those hobbies dealing with the art of cutting and polishing gemstones, the science of gems, minerals and metal crafts, as well as their related fields. Pleasant Oaks Gem and Mineral Club of Dallas is a Section 501(c)(3) not-for-profit organization

CHIPS AND CHATTER
 Pleasant Oaks Gem & Mineral Club
 PO Box 831934
 Richardson, TX 75083-1934

To

VISITORS ARE ALWAYS WELCOME

**Our next meeting will be Thursday, August 5 starting at 7:30 PM
 Hands-On Projects: Intro to cabbing, Intro to Mineral Identification**

Features

August’s New Birthstone - Spinel..... 1
 Bench Tips from Brad Smith..... 3
 Word Game – Birthstones 5

Notices

Shows and Activities 3
 Visit an Area Club 3
 Copyright Notice 5

Federation News

President’s Message (*SCFMS President*)..... 2
 Simpson’s Safety Stuff – Don’t Lick that Rock... 4

Monthly Columns

Club and Meeting Information 1, 5, 6
 Minutes 5
 President’s Message 5