

July 2019

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1st Place, 2019 SCFMS Mini-Bulletin

1st Place, 2017 AFMS Mini-Bulletin

Calcite

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Calcite is one of the most common minerals. Calcite is Calcium Carbonate, CaCO_3 . It forms in the trigonal crystal system and is the defining mineral for Mohs hardness 3. It is generally clear or white, but can also be gray, yellow, or green. Calcite is birefringent meaning the specimen will have different refractive indices depending on the polarization or direction of propagation of the light. Some calcite will also fluoresce when exposed to short wave and/or long-wave ultra-violet light. The fluorescent color can be red, blue, orange, yellow, and other colors. Calcite derives its name from the German word *Calcit* which in turn comes from the Latin word *Calx* which means lime.



Carved Calcite from China

Calcite is the most stable of the three calcium carbonate polymorphs, Calcite, Aragonite, and Vaterite. Although the three minerals have the same chemical formula, Aragonite forms in the orthorhombic crystal system and Vaterite forms in the hexagonal crystal system. Calcium carbonate also forms in massive forms, the most common being limestone and chalk.

Editor's Note: If you read the article Aragonite by Bob Jones in the latest (July 2019 Rock & Gem, you may note that Mr. Jones calls Calcite and Aragonite "paramorphs" explaining that they "both have exactly have the same chemical molecules in the same ratios". He further explains, "The difference in paramorphs is internal, with each presenting different crystal structures". Minerals.net defines a polymorph as "Two or more minerals that contain the same chemical composition but differ in their atomical arrangement and crystal structure" and defines

a paramorph as "A pseudomorph involving two minerals with an identical composition but different crystal structures. The original mineral forms, but conditions then cause it to be unstable, so it transforms into the other mineral with the same chemical structure while retaining the original crystal shape. It seems to me that either polymorph or paramorph may be correct, but that paramorph may be technically more correct. Editor

On first examination, Calcite is sometimes confused with Quartz. Two quick tests can easily show the difference between the two minerals. A scratch test with a nail or pocketknife will show the difference; the Calcite is softer and will be scratched by the iron nail or steel blade but quartz will not be scratched. Weak acids will dissolve calcite but not Quartz. A couple of drops of vinegar will bubble on Calcite but not on Quartz.

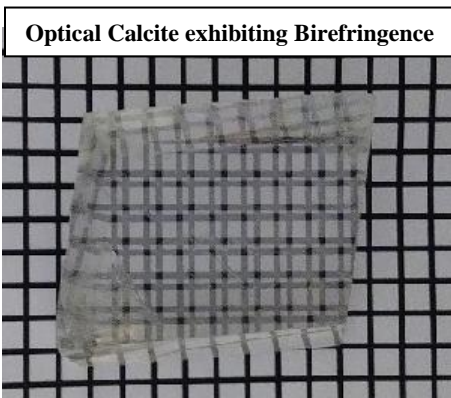
Calcite crystals are a favorite for many mineral collectors. They are relatively inexpensive compared to most mineral crystals. The rhombic crystals of optical Calcite, generally from Iceland Spar crystals are a favorite with many due to their strong birefringent.

Other popular forms (varieties) include dogtooth spar, calcite satin spar (not to be confused with satin spar which is gypsum) hog-tooth spar, angles-wing calcite, poker chip calcite, nail-head spar, and others. Another popular form of Calcite, but rarely collected, are stalagmites, stalactites, and flowstones found in caves; these are just too beautiful to be removed from their natural environment. In addition to mineral specimens, Calcite has other more practical uses. As noted earlier, Calcite is rather soft; it has a Mohs hardness of 3. It is not



Calcite from Reynolds County, Missouri

particularly useful for jewelry, but being soft, it can be easily carved. Ancient Egyptians carved many ornate items from Calcite; they were the first of many cultures



Optical Calcite exhibiting Birefringence

who carved Calcite. During World War II, optical calcite was essential for gun and bombsites. Calcite is used for soil conditioning and concrete repair. Recently, Calcite has been used in experiments trying

to create an invisibility cloak.

Reference:
 Minerals.net, <https://www.minerals.net/>
 Mindat, <https://www.mindat.org>
 Wikipedia, <https://en.wikipedia.org/wiki/>

Pictures by Don Shurtz



July Meeting

Who remembers our July meeting a few years back when you could not park within a half-mile of the Garland Women's Activities Building (GWAB)? I remember sitting in the in the Lobby of the GWAB wondering if anyone else was going to show up. A few members did show up, but most gave up. Our meeting was not on the 4th of July, but Garland choose that Thursday for their children's parade and other activities. I think we learned a lesson after that! With our meeting this year being on the 4th of July; Garland will have many activities; the majority of the activities will be at the Firewheel Town Center. However, instead of being caught up in traffic and possibly finding parking to be non-existent, we will meet at Spring Creek BBQ in Richardson. Spring Creek BBQ is located just north of Main / Belt Line on the US-75 frontage road (270 N Central Expressway). If you are traveling on US-75, take the Main / Belt Line exit. If you are traveling north, go through the Main St. Intersection and past the large Chase Bank building on the right. If you are traveling south, take the U-turn lane under the freeway, then move to the right as soon as possible. We will start going through the line at 7:00 PM, so don't be late. Spring Creek BBQ indicates that the 4th of July is their busiest day – if their parking lot is full, circle around via Greer and N. Interurban to the bank's parking lot.



So what should you expect? Lots of good food (ribs, briquette, sausage, and chicken), side dishes including beans (baked beans and green beans), corn-on-the-cob, macaroni and cheese, potato salad, and coleslaw, and condiments including pickles, onions, jalapeno peppers, and BBQ sauce. Instead of side dishes you can substitute a baked potato. You will probably receive a fresh roll as you come through the food service line, and you can watch for fresh, hot rolls by a roving server. In addition to the food, there will be plenty of talking, and we will wrap up the night with a door prize a pair tickets to the Perot Museum of Nature and Science, a \$40.00 value. See you there.



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Shows and Activities – Upcoming Show and Activity Dates

- Jul 5-7, Farmington, NM, San Juan County G&MS, San Juan Cy Fair Grounds McGee Park, <https://www.facebook.com/SJCGMS/>
- Jul 13-14, Tulsa, OK, Tulsa R&MS, Tulsa Fairgrounds - Exchange Center, www.tulsarockandmineralsociety.org
- Aug 10-11, Gonzales, LA, Baton Rouge G&MS, Lamar Dixon Expo Center, www.brgemandmineral.org
- Aug 17-18, Bossier City, LA, ARK-LA-TEX G&MS, Bossier Civic Center, larockclub.com
- Aug 24, San Antonio, TX, Southwest G&MS, Wonderland Americans Mall, jspeck2@att.net
- Aug 24-25, Jasper, TX, Pine Country G&MS, The [Jasper] Event Center, www.pinecountry-gms.org

Ref:

- May - June SCFMS News
- Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

Safety Matters – A Numbers Game

By Ellery Borow, AFMS Safety Chair



Perhaps you may have heard about the questions of vaccinations and having sufficient coverage to insure the safety of the “herd” effect. Being safe is sometimes a matter of numbers. What is the likelihood of a particular tree being struck by lightning? Or, the likelihood of a mailbox being taken out by a car careening out of control on slippery roads? Or, the likelihood of toast landing on the floor – butter side up? What are the odds? What are the numbers?

With much of the rockhound safety an important number is the number one. One person is usually the one working in the basement lapidary workshop. One person is usually the one working with the hazardous rock cleaning chemistries out in the garage. One person is sometimes the one going on the field trip to a new site.

How does the one protect him – or herself? Well, have you ever heard of the instance where the person pattering upstairs has a sudden thought, “Hmmm, sure is quiet down in our basement shop. It sounds a little too quiet. I think I’ll wander down and see how things are going for her.” In this case, the number is two. There is another person involved with the safety of the other. What if there wasn’t the other? Well, there is always reliance on being familiar with all workshop safety parameters, have a cell phone for emergency communications, have a med kit nearby, know and respect one’s limits and abilities, and so on. Still, having the number two is a great backup.

With chemistries on can, with remarkable ease, encounter a situation of breathing too many fumes. One way to be safe would be to understand that pilots, surgeons, astronauts, and rockhounds use checklists. Why would a thoroughly trained professional use a checklist? Because they are a thoroughly trained professional. Please give serious consideration to having and using checklists when working around hazardous chemistry.

One person can be safe on a field trip if one is prepared. But even with the best preparation, it is wise to have a number two. The number two in this case will be a person who has information about the destination, route (especially when there are several ways to enter the collection cite), anticipated time of return, cell phone number, and any other information that might be useful in an emergency, such as meds.

A herd is not necessary in most rockhound activities, although, the one should make doubly sure to do everything possible to be safe. It is often no merely a matter of numbers to be safe. It’s a matter of guidelines, understanding, patience, practice, common sense, thoughtfulness, care, attention, preparedness. Is that all? Well, almost. There is one more. There is also a need to respect you abilities and Limits.

By all numbers, your safety matters.

BENCH TIPS BY BRAD SMITH

EMERY BOARDS

The sanding boards for doing your nails are one of my favorite finishing tools. I use the ones with a thin foam core. They have enough resistance to sand just the high points off a flat surface and yet give a little when you're trying to smooth off a curved surface. Plus they're inexpensive and come in a variety of grits. Some grits are so fine they give an almost finished surface. Pick up a few at a beauty supply company or at your local drug store.



DENTAL FLOSS

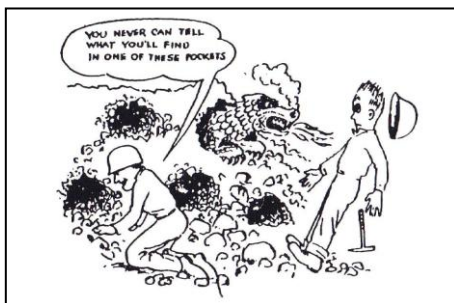
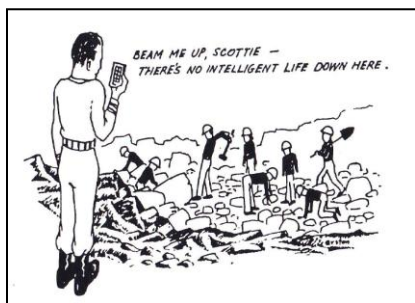
When testing the fit of a stone in the bezel, it's all too easy to get it stuck. If tapping the finding or opening up the bezel a bit with a knife blade doesn't dislodge it, you might have to drill a small hole in the bottom and push it out with a needle. To avoid all this frustration, use the old dental floss trick. Lay a piece of over the top of the bezel before you seat the stone. Then just pull on the string to remove the stone.

Be More Productive With Brad's "How To" Books

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



Rockhound Humor



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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

PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

July 4th meeting will be at Spring Creek B.B.Q on Central Expressway in Richardson. Be there on time 7:00pm. There are a total of six Gem and Mineral club shows in July and August. In addition, Plano Trade Day, which is the Buchanan Show, is the second weekend of each month at 1717 Spring Creek Parkway, Plano, TX (northeast corner of Spring Creek Parkway and Greenville Avenue)

CLUB OFFICERS FOR 2019

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

MEETING MINTUES

Minutes of the June 6th, 2019 meeting

The meeting was called to order at 7:30pm by Del Grady.

The Pledge of Allegiance was led by all of us.

New Business:

- Our new member Talban Kantala attended our meeting this evening.
- Ling and Don were not here tonight because they are up in Missouri with their daughter and new grandbaby.
- We discussed the minutes of the May meeting as printed in the Chips and Chatter and voted to accept the minutes.
- Del read the Treasury report. Cheryl made a motion to accept the Treasury's Report and Carolyn seconded it. We voted and it passed.
- Next month is July, we will have our meeting at Spring Creek Bar-B-Q on North Central

Expressway just north of the Main Street/Beltline Road exit, and we will start at 7pm.

There was no old business.

We had our refreshment break.

After our break we had our presentation, a DVD. It was the other half of the phases of activity of a volcano.

We had our raffle and then the meeting was adjourned at 8:30pm.

Respectfully submitted,
Lee Elms Secretary

MEETING

Our next meeting is July 4th, 2019. Due to expected activities in downtown Garland for the holiday, we will meet at Spring Creek BBQ in Richardson starting at 7:00. Please note the early start time and plan to arrive ON-TIME.

Our August 1st meeting will be at back at the Garland Activities Building starting at 7:30 – in other words, back to normal!

VISITORS ARE ALWAYS WELCOME

Show and Tell

Bring yourself, your appetite, and some stores to tell. Be prepared to a good time and good food. There will be a door prize (not a raffle – everyone will have the same odds of winning). The door prize is a pair of general admission tickets to the Perot Museum of Nature and Science.

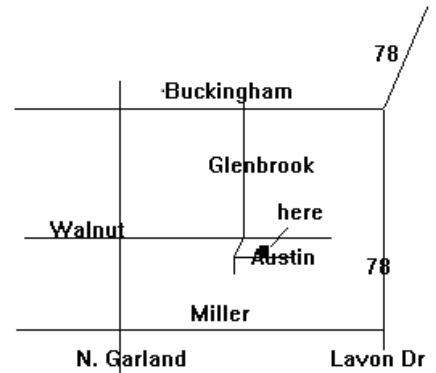
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PLEASANT OAKS GEM and MINERAL CLUB of Dallas



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

**Next Meeting: July 4th starting at 7:00 at Spring Creek BBQ in Richardson.
 Join us for food, talk, friends, and a great door prize.**

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