



Celestine

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Celestine, also known as celestite, is best known as a pale blue crystal composed of Strontium Sulfate,



SrSO_4 . Its name comes from the Latin *caelestis* meaning celestial, which is derived from the Latin *caelum* meaning sky or heaven; its name, then, refers to the color of the sky. Although known for the pale blue crystals, the color can also be white, pink, reddish, grayish, pale green, pale brown, black, or colorless. Celestine sometimes contains trace amounts of calcium and barium, which is not surprising as they are neighbors in the same column of the Periodic Table. Although beautiful in color, it is soft having a Mohs hardness of 3.0 to 3.5. This is really too soft for jewelry but ideal for carving. Celestine is found in crystals, massive form, and fibrous forms. Celestine also forms the skeletons of the radiolarians protozoan *Acantharea*. Other radiolarian skeletons are made from quartz (silica).

Celestine is sometimes found inside geodes. The largest geode in the world was filled with

Celestine. The geode is 35 ft in diameter at its widest point and is 30 feet deep. It was found by Gustav Heineman in 1897 when he was trying to dig a well for his winery. The geode is located on South Bass Island in Lake Erie on Put-In-Bay, Ohio in the limestone underlying his winery. Exploring the vug, he found that is covered with large, well-developed tabular crystals that were identified as strontium sulfate. Initially the vug was mined for the Celestine; the strontium was extracted and used as the coloring agent for red

fireworks. The mining was low rate and only removed crystals from the floor. When Prohibition was enacted in 1920, the seventeen wineries in Put-In-Bay were forced to close wine making operations. Norman Heineman, Gustav's son, had the idea to open the cave to visitors selling tickets to the cave along with unfermented grape juice. After prohibition ended in 1933, the winery again started producing wine but continued the cave tours. Over the years, there have been improvements to the cave tours by removing more of the crystals from the floor to expand the size of the viewing area. Their website, <http://www.heinemanswinery.com/crystalcave.asp>, indicates the cave and winery are open for tours seven days a week from 11 AM to 5 PM. See their website for pricing.

Celestine is found worldwide, but rarely in large quantities. I would suggest looking at Min.dat for their map of locations. Of local interest, fine specimens have been found in Bull Creek, Austin, TX. Celestine has been found in other location near Austin. Celestine is often associated with salt domes. Celestine occasionally forms as one of the cap-rocks for salt domes. One such location is the Bushy Creek salt dome, Bushy Creek, TX (about 100 miles SE of Dallas). If anyone reading this article has any information about where Celestine can be rock-hounded in Texas, particularly near Austin, I would be interested in that data.

Reference:

- Celestine (Mineral), Wikipedia, <https://en.wikipedia.org/wiki>
- Celestine, Mineral.net, <https://www.minerals.net/mineral/celestine.aspx>
- Celestine, Min.dat, <https://www.mindat.org/min-927.html>
- Heineman's Winery, <http://www.heinemanswinery.com/crystalcave.asp>
- PutInBay, Crystal Cave, <https://putinbay.com/piib-activites/crystal-cave/>

Photograph: by Don Shurtz of Celestine specimen found near Austin and displayed at the Perot Museum of Nature and Science

YELLOWSTONE SUPERVOLCANO

Matthew Lybanon, Editor MAGS

Via MAGS Rockhound News August 2020

The term "super-volcano" implies a volcanic center that has erupted more than 1,000 cubic km of material. So much magma is erupted that a circular-shaped collapse feature, called a caldera, forms above the evacuated magma storage region. The best-known super-volcano in the U. S. is the Yellowstone super-volcano. The Yellowstone super-volcano has erupted at least 10 times over the past 16 million years. In a recent study, researchers found that volcanic deposits previously attributed to a series of small eruptions actually resulted from two huge ones. The oldest eruption, the McMullen Creek super-eruption, occurred about 9 million years ago. The second, the Grey's Landing super-eruption, occurred 8.72 million years ago and was the single largest eruption of the Yellowstone hotspot ever detected. Six recorded super-eruptions occurred during the Miocene epoch, 23

million –5.3 million years ago. These eruptions occurred, on average, every 500,000 years. However, the two super-eruptions that occurred since then are separated by 1.5 million years. Because the park has only experienced two similar events in over the past three



Photo courtesy Wikimedia Commons

million years, experts are concerned the hotpot is enduring 'a very significant decline.' The new findings suggest we may have up to 900,000 years before another eruption occurs on scale.

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

Another Special Thanks

Another Special “Thank You” goes out to **Debbie Kitchens, the daughter of Bob and Jerrye Parker**. On behalf of Bob and the Parker extended family, Debbie has donated a large sack of hardback books, paperback books, magazines and pamphlets to Pleasant Oaks Gem and Mineral Club. Included are 4 hardback college level textbooks, 3 general reference rock and mineral books, 28 hobby relate paperback books, 11 pamphlets, and 7 magazines including Volumes I to IV of “Mineral Digest”.

Thanks again, Debbie! Bob and Jerrye were two of the founding members of Pleasant Oaks, and Debbie was the first Junior Member of Pleasant Oaks.

Thank You, Debbie

Bench Tips from Brad Smith

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

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

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



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

- OCT 9–11 Dallas, TX, International Gem and Jewelry Show, Market Hall (main hall), <https://www.intergem.com/>
- OCT 10, SCFMS Convention Meeting via ZOOM
- OCT 23-25, Austin, TX, Austin G&MS, Palmer Events Center, www.agms-tx.org
- OCT 31-NOV 1, Oklahoma City, OK, Oklahoma M&GS, State Fair Park, Modern Living Bldg, douglas.pollitt@yahoo.com
- NOV 6-8, Humble, TX, Houston G&MS, Humble Civic Center, hgms.org
- NOV 7-8, Amarillo, TX, Golden Spread G&MS, Amarillo Civic Center, www.amarillotreasure.com/

Ref:

- July-August 2020 SCFMS News
- Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

SCFMS ANNUAL MEETING UPDATE

Liz Burford, SCFMS Secretary, From the July-August SCFMS Newsletter



Hello to All! I hope everyone is surviving these crazy days okay.

We are beginning our preparations for the SCFMS Meeting online, October 10; it is scheduled to take place via Zoom Meetings. I am beginning to put together the convention packet. Many of you have complained in the past that you have not received the packets via email or you have not received requests for forms, reports, etc. If you are one of those people, PLEASE email me at scfmssecretary@gmail.com with your name, club you represent, and position you hold.

Roger has sent out the Call for Reports. If you are someone who has to turn in a report for the packet, please work on this and have it to me on time. ***This year there will be no opportunity to submit reports the day of the meeting and hand out at the door.***

I will also be emailing out the Delegate Forms. **These are required to be completed by the President of each club prior to the start of the Convention/Meeting.** The Delegate Form lets us know who is representing each club and that person is authorized by the President of the club. This year we will be doing things differently. The Zoom Meeting invites will be sent out according to the Delegate Forms received back from each club. Therefore, as the President it is up to you to return the form with the name and email address of the person attending the meeting representing your club – NO LATER THAN SEPTEMBER 10, 2020.

Here again, there will be no opportunity to collect these forms at the door as in years past. Your club's participation is crucial to the success of this meeting.

Please be sure to watch your mailbox for emails that will be coming out beginning the week of August 17. Be sure to check Spam folders since we do include several people on our mailing list. Contact me if you are a Club President or a Committee

AFMS/SCFMS VOLUNTEERS NEEDED

From the July-August SCFMS Newsletter



We have several positions open. Please consider filling one of them.

District VP – District I – Northeast TX – Arlington, Cowtown, Dallas, East TX, Fort Worth, Pleasant Oaks, Texoma, Wise County

District VP – District II – Southeast TX – Clear Lake, Houston, Pine Country

District VP – District VIII – Louisiana – (currently temporarily filled by Liz Burford) Ark-La-Tex, Baton Rouge, DeRidder, Alexandria, New Orleans, West Monroe

AFMS Endowment Fund Raffle
Auditing Committee Chair
Boundaries (AFMS Liaison)
Commemorative Stamps (AFMS Liaison)
Historian
Juniors Program (AFMS Liaison)
Nominating Committee
Program Library & Competition (AFMS)
Public Relations (AFMS Liaison)
Safety (AFMS)
Scholarship Fund (AFMS)
Ways & Means



Editor's Note: Although we are one of the smallest clubs in the SCFMS, that does not mean we cannot think big, like controlling the whole SCFMS. One of our members holds 3 positions in the SCFMS. If we all jumped on bandwagon, we could probably have a majority of the positions. Almost all of the elected and committee positions require only a few hours per year. How about it – can you volunteer?

PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

If you should get this issue before Monday, August 31, please remember the Ft. Worth G&M Clubs show is the last weekend in August (29-30). Our next event is the IGEM show, October 9 – 11 with set-up likely on Wednesday, October 7. Even if you are not selling you can come out and enjoy the show and help at the booth. Our September 3 meeting will be chance to volunteer for a club position. Our presentation will be a video about the Geology of Bryce Canyon.

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

August 6 2020 MEETING MINTUES

POGMC President Ling Shurtz called the club meeting to order at 7:35 PM.

We recited the Pledge of Allegiance to the Flag

Quorum: We have a quorum

Sunshine Report:

Pattie still at nursing home, no visitors allowed

Visitors: There were no visitors

Minutes: There were no July meeting minutes as we celebrated Independence Day with a potluck dinner. We reviewed the minutes of the June meetings as printed in the July 2020 Chips and Chatter. Don made a motion to accept the minutes. Carolyn seconded the motion. The motion passed.

Treasurer's Report: Del Grady gave Treasurer's Reports for June and July. Carolyn made a motion to accept the Treasurer's Reports. Carol seconded the motion. The motion passed.

Old Business:

- August IGEM show was canceled

New Business:

- The next IGEM is scheduled for 9 – 11 October at Market Hall. Set-up will likely be October 7 in the early afternoon.
- The Tri-City show has been canceled. This was also planned as the SCFMS Convention. The

current plan is to hold the Convention as an Internet Zoom meeting.

Area shows (note that dates subject to change or show cancellation):

- AUG 1-2, Lubbock, TX, Lubbock G&MS, Lubbock Memorial Civic Center
- AUG 8-9, Gonzales, LA, Baton Rouge G&MS, Lamar Dixon Expo Center
- AUG 15-16, Bossier City, LA, ARK-LA-TEX G&MS, Bossier City Civic Center
- AUG 21-22, Tahlequah, OK, Tahlequah R&MS, Cherokee Community Building
- AUG 22, San Antonio, TX, Southwest G&MS, Wonderland of the Americas Mall
- AUG 29-30, Fort Worth, TX, Fort Worth G&MS, Will Rogers Mem. Ctr.

Break:

Presentation: Julie Wilson talked about her and her Father's (Ted Wilson) experiences living in Alaska. She had several pictures of winter in Alaska. She also describe transportation in Alaska and that many of the small towns in western and northern Alaska could only be reached by air. She also had pictures of many of the scenic sites. She said Denali was her favorite and had several pictures of Denali peak and the park. She also had several pictures of the different kinds on bears and other wildlife. She brought in many souvenirs from her stay including moccasins, whalebone carvings (some very old), a feather and a white fox fur.

Ling adjourned the meeting at 9:00 PM.

From notes by Don Shurtz

MEETING

Our September 3 meeting will feature a video about the geology of Bryce Canyon, UT

Our October 1 meeting will be at the Garland Activities Building and will start at 7:30 PM. 2020-2021 Elections for 2020-2021 Officers will be held Anyone want to volunteer?

VISITORS ARE ALWAYS WELCOME

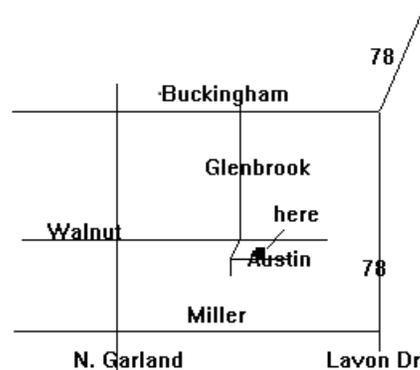
Copyright Information: This issue of the Chips and Chatter is copyright © by Don Shurtz. Unless otherwise noted, permission granted for non-commercial reproduction of articles provided they remain essentially intact and credit is given to the author and original source. Where noted, the author retains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

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
The September 3 meeting will start at 7:30 PM.
Our presentation will be a video about Bryce Canyon

Features

Another Special Thanks 3
 Celestine 1, 2
 Yellowstone, Super Volcano 1, 2

Monthly Columns

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

Federation News

SCFMS Annual Meeting Update 2
 AFMS/SCFMS Volunteers Needed 3

Notices

Shows and Activities 3
 Visit an Area Club 2
 Copyright Notice 5