

Hematite

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Hematite is one of the many forms of Iron Oxide. Other forms of Iron Oxide include Magnetite,

Magnemite and Rust. If you add a hydroxide ion (OH), you can also have Goethite, Akaganeite, Lepidocrocite, Rust, and Schwertmannite. You will note that Rust (yes, the common brown, scaly material that forms on iron) can be either an Iron Oxide or an Iron Oxide Hydroxide or both.

Hematite in its crystalline form has a black, blue, red, or metallic grey color. The chemical formula for Hematite is Fe_2O_3 , has a Mohs hardness rating of 5.5 to 6.5, and is very dense with a specific gravity of 5.26. Crystalline Hematite forms in the trigonal system; the crystal habitat includes thick tabular fibrous crystals, rosettes. radiating in a circular pattern, and botryoidal. It can also be found as a stalactite.

Hematite in its non-crystalline form can be created by depositing from water forming

on the bottom of lakes, often in bands or from volcanic activity forming in massive form. Hematite is the primary ore for iron. Hematite was the iron ore that opened up the Iron Age. When Hematite is mixed in clay, it is referred to as Ochre. Red Ochre is mixed with unhydrated Hematite; yellow Ochre is

clay mixed with hydrated Hematite. Red Ochre was used as "paint' in cave drawings and as body markings (164,000 years ago) and in burial sites (50,000 years ago). Both yellow and red Ochre are currently used as pigments.

Hematite's name is derived from Middle French hématite pierre which comes from Latin lapis haematites which comes from Ancient Greek haimatites lithos which mean blood-red stone. Hematite is found in many locations worldwide including the United Kingdom (where the pictured specimen was found), France, Spain, Italy (including the Island of Elba that have been mined since about 700 BCE), United States, Brazil, and many other sites.

Reference:

- <u>https://en.wikipedia.org/wiki/</u>
- Mindat, <u>https://www.mindat.org</u>

Picture: Picture and editing by Don Shurtz

Note: Check out the on-line version at <u>www.pogmc.org</u> to see the picture in color and before the image was edited to change the color of the background.

Chips and Chatter

Pleasant Oaks Gem and Mineral Club of Dallas, TX

Shows and Activities – Upcoming Show and Activity Dates

- Jun 1-2, Lubbock, TX Lubbock G&MS, Lubbock Memorial Civic Center, www.lubbockgemandmineral.org
- Jun 6-9, Austin, TX Natures Treasures of Austin, Norris Conf. Center, https://ntrocks.com/international-expositionof-agate
- Jun 29 30, Arlington G&MC, Grapevine Convention Center, <u>www.agemclub.org</u>
- Jul 13-14, Tulsa, OK, Tulsa R&MS, Tulsa Fairgrounds Exchange Center, www.tulsarockandmineralsociety.org
- Jul 5-7, Farmington, NM, San Juan County G&MS, San Juan Cy Fair Grounds McGee Park, https://www.facebook.com/SJCGMS/
- 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 24-25, 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

[SCFMS] PRESIDENT'S MESSAGE



In following up with my January message in the newsletter I want to cover some of the reasons it's good to become a member of a Gem and Mineral Society and what the Federations can do for you. While I was at this year's AFMS meeting the question was posed by one of the attendees, "What does the Federation do for me?", so I would like to point out some of the things I think we get out of belonging to our local clubs and to our federations. I would also like to hear back from you with your ideas of what you get out of belonging to your club or the federations and what you think we should be doing that we are not.

Your local clubs are people's first exposure to our hobby, they are able to meet people with the same interest and learn about good fieldtrip ideas and in many clubs the lapidary arts. There are many clubs with youth activities and workshops to expand on the educational benefits. For many club members, they only know that their federation provides insurance coverage for fieldtrips but the Federation does much more. One benefit that many people do not know about is the Program Library held by the Federation with many educational videos and slide shows. There is also an archive of past newsletters and histories of the clubs and the Federation itself. Our clubs and Federation are also registered as 501 3c non-profit organizations and if a new club forms they can contact the Federation for information on the requirements to organize and register their club. Our Federation also has a youth badge program clubs can get involved with.

Our Federations joined the American Federation of Gem and Mineral Societies to again be an umbrella organization which is able to represent our clubs at the federal government level and lobby for your hobby and our ability to utilize federal lands to collect our treasures. There is also a program to lobby for new stamps representing rocks, minerals and other aspects of our hobby on postage stamps. There are numerous possibilities to volunteer your time and expertise at the club, local federation and the American Federation levels. Please look into how you can help out your club and federation, even if you don't have any specific skill, everyone can learn new ideas and everyone has their own ideas which can add to our great hobby.

Thanks, Roger Burford

BENCH TIPS BY BRAD SMITH

SANDING DISKS

One of my favorite flexshaft tools that saves a lot of time is the snap-on sanding disk. I mainly use the medium and fine grits but sometimes like the very fine ones sold for working with platinum.





Ordinarily, you'd think of placing the disk on the mandrel with the grit side facing away from your hand, but notice that you end up with your elbow up in the air. Instead, try

flipping the disk so that the grit side is towards your hand. It's a much more comfortable position because the elbow is down near your side, and it lets me hold the work up close where I have a better view of what I'm sanding.



I use these snap-on disks so frequently that I keep multiple mandrels with different grits already mounted in the bur stand. Some mandrels have the grit facing out and some facing in.

EASIER PRONG SETTING

When setting stones in a prong mount, the tool is less likely to slip off the prong if you grind a groove into its face or rough up the face a bit with sandpaper. Some folks prefer a prong pusher for doing this, and others like a set of pliers.

The easiest way to create a slot on the pusher is with a file, and the easiest way to create a slot on one jaw of your pliers is with a cutoff wheel. Then do a rough polish on the slot with a medium grit, knife-edge silicone wheel.

Be More Productive With Brad's "How To" Books Amazon.com/author/bradfordsmith





Editor's Corner: International Expo of Agates Coming to Austin Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

The International Expo of Agates, sponsored by Nature's Treasures will be held at the Norris Conference Centers, 2525 W Anderson Ln #365, Austin, TX from June 6 – 9. There are a number of activities associated with the Expo including speakers, dining, an auction, activities for kids, exhibits, author signing, and over 30 dealers from all over the world (including Argentina, Germany, India, Australia, Mexico, Africa, Russia, the United States, and more). The keynote speaker will be Lori Coleman and will be at a special dinner at the Doubletree Hilton Arboretum on June 7. In addition to the Keynote address, there will be sixteen speakers, 5 each on Thursday and Friday, 4 on Saturday, and 2 on Sunday. The tickets cover a variety of activities and ranges from \$15.00 for a single day general admission (exhibits and dealers, no speakers) to \$120.00 for a 4 day VIP pass which includes all days, all speakers, and the dinner. If you love agates, this a NOT-TO-MISS event. Find more info at: https://ntrocks.com/international-exposition-of-agate

VISIT AN AREA CLUB

Arlington Gem & Mineral Club, meets the 1st Tuesday of each month at 7:30 pm, 1408 Gibbins, Arlington, TX <u>Cowtown Gem, Mineral, & Glass Club</u>, meets the 2nd Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth <u>Dallas Bead Society</u>, meets 1st Saturday of each month at 10:00 am at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX <u>Dallas Gem & Mineral Society</u> meets the 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop) <u>Dallas Paleontological Society</u>, meets 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244 <u>Fort Worth Gem & Mineral Club</u>, meets 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth <u>Oak Cliff Gem & Mineral Club</u>, meets the 4th Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas, <u>Pleasant Oaks Gem & Mineral Club</u>, 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

A Blast from the Past: Birthstones for June – Pearl, Alexandrite, and Moonstone

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas From the June 2013 Chips and CHatter

The birthstones for June are similar to the moon. The moon is white and seemingly iridescent as are pearls and moonstone. The moon is also know for color changes – white for a full moon, black for a new moon, red or orange for a harvest moon, and there is always the blue moon which is not really a description of the moon's color. The third June birthstone, alexandrite, is also know for color changing, or at least having a different color depending on the source of illumination.

June has 3 birthstones, or perhaps only 2 birthstones and the pearl. Pearl is of organic origin, thus is not a mineral, and a stone is composed of minerals. Thus, by logic, pearl is not a stone, and thus cannot a birthstone. However, the American Gem Society recognizes pearl as a birthstone, and although I disagree on technical grounds, who am I to argue?



A pearl is formed in the soft tissues of living mollusks, commonly oysters or muscles. A pearl is formed around some sort of material that is an irritation to the oyster, and it coats the source of the irritation with successive layers of calcium carbonate to alleviate the irritation. The layers of calcium carbonate are separated by conchiolin, a complex protein that glues the layers together. The combination of calcium carbonate and conchiolin is called nacre. The finest pearls have the thinnest layering creating more iridescence. Pearls are found in the wild (natural)

but are relatively rare. Most pearls are cultured which means that a human introduces an irritant that the oyster starts to cover as a pearl, and are farmed. There are also imitation pearls, but most experts claim that imitation pearls do not have the same iridescence as natural or cultured pearls.

Alexandrite is the second birthstone for June. Alexandrite is a variety of the mineral chrysoberyl, chemically beryllium aluminate. As mentioned, alexandrite changes color depending upon the ambient lighting. It typically appears green in sun light and red in incandescent light. This change in color appearance is independent of the direction the crystal is viewed from. Alexandrite was originally only found in the Ural Mountains of Russia. However, it has since been found in Brazil and in smaller sized specimens from India, Madagascar, and Sri Lanka. Alexandrite is generally cut a faceted stones. One needs to be careful with alexandrite as many lab



grown stones have been developed that simulate the color change of alexandrite. Color changing lab grown versions of corundum and spinel have been developed. These are really simulates rather than synthetic alexandrite.



Moonstone is a variety of feldspar and is chemically sodium, potassium, aluminum silicate. Moonstone is typically white with a sheen or iridescence cause by light diffracting from the thin layers of feldspar much as a pearl derives its iridescence from thin layers of calcium carbonate. Moonstone looks so much like the moon that early Romans believed it was solidified moon beams. Moonstone is typically cut as cabochons. Moonstone is found in Australia, Austria, Mexico, Madagascar, Burma,

Norway, Poland, Sri Lanka, and the United States. In the United States, locations for moonstone are North Carolina, Virginia, Connecticut, and Rhode Island.

Ref:

American Gem Society, <u>http://www.americangemsociety.org/june-birthstones</u> mindat.org, <u>http://www.mindat.org/min-2774.html</u> Wikipedia, <u>http://en.wikipedia.org/wiki/</u>

Pictures:

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PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

Our next meeting is June 6 and will be at our normal meeting location. However, the July meeting falls on the 4th of July, and Garland has many activities scheduled for that evening. Our experience in the past is that it is best to avoid downtown Garland at that time, so we will meet at the Spring Creek BBQ on North Central Expressway just north of Main. Plan to attend.

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
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MEETING MINTUES

POGMC President Ling Shurtz called the May 2, 2019 club meeting to order at 7:30 pm.

We recited the Pledge of Allegiance to the Flag

Quorum: We have a quorum

Sunshine Report: Patti is out of the hospital

Visitors: Carole Lawrence, a POGMC member from several years ago, came to the meeting. Carole rejoined the club

Minutes: We discussed the minutes of the April 2019 meetings as printed in the Mau 2019 Chips and Chatter. Carolyn made a motion to accept the minutes. Don seconded the motion. The motion passed.

Treasurer's Report: Del Grady gave Treasurer's Reports for April. Carolyn made a motion to accept the Treasurer's Reports. Cheryl seconded the motion. The motion passed.

Old Business: No old business

New Business:

Our July meeting (two months away) falls on the 4th of July. Garland has activities planned for downtown making parking difficult to impossible. For the 4th of July we will go to the Spring Creek BBQ near Central Expressway and Main St. in Richardson starting at 7:00 pm.

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Chips and Chatter

Pleasant Oaks Gem and Mineral Club of Dallas, TX

- Area shows:
 - May 4-5, Waco, TX, Waco G&MC, Extraco Events Center
 - May 25-26, Ft. Worth, TX, Fort Worth G&MC, Will Rogers Memorial Center
 - Jun 1-2, Lubbock, TX Lubbock G&MS, Lubbock Memorial Civic Center
 - Jun 6-9, Austin, TX, Natures Treasures of Austin, Norris Conf. Center,
 - Jun 29 30, Arlington G&MC, Grapevine Convention Center
 - o Note: Contact information in Chips and Chatter

Break: Chips and Salsa, cookies, & popcorn for the video.

Presentation: Video, Introduction to Geology, Volcanic Activity by Professor John Renton. Topics covered included types of volcanoes, types of magna and lava, and where volcanoes are found. It was interesting to find that volcanoes formed in the diverging plates (oceanic ridges) are never explosive.

Raffle: We had the raffle.

Ling adjourned the meeting at 8:50 pm. Lee Elms, Secretary

MEETING

Our next meeting is June 6, 2019 at the Garland Activities Building, 713 Austin in downtown Garland starting at 7:30. Our presentation will be a video, a continuation of the Volcanic Activity video that we started in the May meeting. Our July 4th meeting will be at Spring Creek BBQ in Richardson starting at 7:00 PM

VISITORS ARE ALWAYS WELCOME

Show and Tell

For Show and Tell, bring one of the three June birthstones – pearls, alexandrite, or moonstone, or bring a black mineral such as hematite, black tourmaline, etc.

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PLEASANT OAKS GEM and MINERAL CLUB of Dallas



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: June 6, 2019 starting at 7:30. The presentation will be a continuation of the video from May, "Introduction to Geology: Volcanic Activity"

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