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1st Place, 2022 AFMS Mini-Bulletin

Birthstones for June – Pearl, Alexandrite, and Moonstone

Updated and refreshed from the May 2013 Chips and Chatter
Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

The birthstones for June are similar to the moon. The moon is white and seemingly iridescent as are pearls and moonstones. The moon is also known 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 known for color changing, or at least having a different color depending on the type of illumination.

June has 3 birthstones, or perhaps only 2 birthstones and pearls. Pearls are of an organic origin; they are not a mineral. Similarly, Pearls are not stones as stones are composed of one or more minerals. Thus, by logic, the pearl is not a stone, and therefore cannot be a birthstone. However, the American Gem Society recognizes pearls as one of the June birthstones, 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 (in the form of Aragonite) to alleviate the irritation. The layers of calcium carbonate are separated by conchiolin, a complex protein that glues the layers together. The thin calcium layering creates 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 on the source of the lighting. It typically appears green in sunlight and red in incandescent light. This change in color appearance is independent of the direction the crystal is viewed from. Alexandrite was originally found only 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 as faceted stones. One needs to be careful with Alexandrite as it can, and has been grown in labs. Also, some lab-grown stones have been developed that simulate the color change of Alexandrite. Included in this category are color-changing lab-grown versions of corundum and spinel. These are really simulated 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 caused by light diffracting from the thin layers of feldspar much as a pearl derives its iridescence from thin layers of calcium carbonate. Moonstones look so much like the moon that early Romans believed they were solidified moonbeams. 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 finding moonstones are North Carolina, Virginia, Connecticut, and Rhode Island.

Ref:

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

Pictures:

Wikimedia, <http://commons.wikimedia.org/wiki/licensed> under Creative Commons Attribution-Share Alike 3.0 Unported

FEDERATION NEWS

By Cheryl Neary, AFMS President - From the June 2023 AFMS Newsletter



“We make a living by what we get, but we make a life by what we give.” ~Winston Churchill

In another president’s message I quoted Dolly Parton. This time - Winston Churchill. We earn money so we are able to buy things that are necessary for our lives. This is living, something we do to create the life we want. Giving of our time or money to help better another is also part of life.

Volunteering includes giving of time, knowledge, energy, and at times money. Why volunteer?

I am sure many of you have very busy lives and believe there is little time to volunteer for a position within your club or federation. However, for both clubs and federations to succeed, we need volunteers. The stronger the volunteer base, the stronger the club and/or federation.

There are benefits to volunteering!

You can form new friendships. You have the opportunity to network with others and learn new skills. I recently read that it is also possible to protect your mental and physical health through volunteering.

How is that possible? Doesn’t meeting deadlines increase stress levels? (i.e.: writing a report, creating monthly bulletins/newsletters, juggling everything you do) On the other hand, meeting deadlines keeps you mentally stimulated (ah, those new skills?) and provides a sense of purpose. These are things that may reduce stress, combat depression, and boost your self-esteem.

What is sense of purpose? It is what you believe in, what you value in life, and what motivates you. There is evidence that having a sense of purpose maintains health and well-being throughout your lifetime (a study documented in BMC Public Health, online version, July 11, 2017). The study concluded that a positive **sense of purpose** was

associated with “better mental and physical health, life satisfaction, self-esteem, happiness, and lower depressive symptoms, ...”

Volunteering does not necessarily involve long-term commitments. Many club and federation positions require a commitment of a year. Once you accept a position you may feel the rewards of the position and may want to stay on if your bylaws allow consecutive terms. How would you know this? Simply volunteer and find out what it is all about. I don’t encourage anyone to resign from a position without at least trying it for a year, but if you become unable to afford the time to continue or you develop health issues, I am sure there is no real harm done.

I want people to volunteer!

I do not want them to volunteer if not willing to perform the responsibilities of the position. When I was growing up, my parents gave my sisters and me chores to perform, and each week we rotated. It may sound funny to hear that we had four different chores for after dinner. The first was to clear the table; the second was to wash the dishes; the third was to dry the dishes; and finally, to put the dry dishes away. (Nowadays, there are dishwasher appliances to handle the second and third tasks). Anyway, my sisters called me the general because as the oldest of the girls, I would say let’s get going - especially if that week I was supposed to put away the dishes. I did not want to wait for them and miss out on other things I wanted to do! I like to consider it time management. Today, I believe in the “voluntold” concept. That is what my daughters call it when I ask if they will help and then tell them they will be helping. This concept does work! I have recruited many people to volunteer under a bit of pressure; they find out they do enjoy the tasks and have volunteered to either stay on or move on to another position. I also find that many people will not volunteer, but when asked, they do step up to the plate! A home run for them and for their club/ federation! Both the individual and the club can become healthier!

There are many positions within clubs and federations that are open - do you need a nudge? I would be glad to volunteer to be the person to provide that nudge!

Hope to see and hear from you in Billings, Montana!

NOTICE TO ALL SCFMS CLUBS, FROM THE SCFMS PRESIDENT

At the upcoming SCFMS convention in October, we will need nominations for persons to serve as SCFMS officers for the coming term. All members who are interested in serving the federation are encouraged to submit their names for consideration. Also, all SCFMS clubs are invited to submit the names of their members who would be willing to take an office for the upcoming term, which will begin January 1, 2024. You can find more detailed information in the SCFMS Bylaws.

Ron Carman has agreed to take the names submitted and use them to prepare a slate of nominees for the annual meeting in October. His e-mail address is: rrcarman@centurytel.net and his home telephone number is (512) 754 6687. Please feel free to send all submissions to him. If you have any questions, please feel free to ask him also.

Thank you in advance for your consideration and recommendations.

Chips and Chatter

See the Chips and Chatter online for color!

June 2023

Pleasant Oaks Gem and Mineral Club of Dallas, TX

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Editor's Corner – Bring on the Heat – A Blast from the Past

From the July 2016 Chips and Chatter
Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Summer is almost here, and all indications are that it will be a hot hot summer! We will soon have our first triple-digit temperature for the year or our first “feels like” over a hundred degrees day. It is the “feels like” or, more properly, the heat index that determines if we have a Heat Advisory. A Heat Advisory will normally be issued by the National Weather Service if the heat index is predicted to reach 105 to 115 degrees for 3 or more hours on 2 or more consecutive days or if the heat index is predicted to exceed 115 degrees, or if the night time heat index is predicted to be 80 or more degrees for 2 consecutive nights.

As indicated, the heat index is the “feels like” temperature. Two factors determine the heat index; air temperature and humidity. The reason that humidity enters the equation is that the body tries to cool itself by perspiration (sweating), but if the humidity is high then the perspiration can't readily evaporate and cool us down. There is a complicated formula for calculating the heat index, but it is much simpler to just look at a table from the National Weather Service, or even better yet, just download the PDF chart at http://www.srh.weather.gov/jetstream/downloads/heatindex_rh_f_20x12.pdf and other online sites, or just listen for the heat index on your television or radio weather forecast.

Heat is DANGEROUS! It can lead to heat exhaustion or, even worse, heat (sun) stroke and even death. Heat exhaustion has been known to occur in infants and the elderly just due to the heat alone – no physical activity is required. However, if you are physically active outdoors on a high heat index day, it can occur. Symptoms include nausea, dizziness, headache, thirst, and excessive sweating. If you think you have heat exhaustion, move to a cool place (even just moving to a shaded area will help), take off any extra layers of clothing, and cool off by sitting in front of a fan or using cool wet towels. If not promptly treated, heat exhaustion could lead to heat stroke. Heat stroke is hyperthermia of the body with core body temperatures greater than 105.1 degrees. In addition to high temperature, other symptoms include disorientation and lack of sweating. The treatment is to cool the body's core temperature. Cooling can include bathing or showering in cold water, cold compresses to the body, neck, head, and groin, or at least a fan or air conditioner to aid in the evaporation of sweat or water (toweling or misting). Hydration (taking in fluids) is important. Water or sports drinks may be a good starting point, but too much water may lead to an electrolyte imbalance. Pedialyte[®] can be helpful in hydration and adding electrolytes. Pedialyte[®] is not just for infants! Also, don't be reluctant to call 911 for emergency help – it could save a life.

Of course, the best way to treat heat exhaustion or heat stroke is to take proactive steps to avoid them. If the heat index is way up there, say inside in an air-conditioned space (going to a mall or a theater is a good option if your air conditioner is broken). If you must work outside, take it easy. Take frequent breaks, drink lots of fluids, and cool down if you start feeling any symptoms. When roofers came last week to do our roof, they were an older crew trying to help out and earn a few extra bucks. At first, there were 5 workers, but by the end of the day, only 2 were still working. The next morning only 3 returned, and basically, only the same 2 worked. On Day 1 they had run out of their water and sports drinks about 1:00 in the afternoon and didn't tell anyone. They kept cool by hosing down, but they needed hydration. They only had to mention it and the hydration issue would have been solved.

How does all this apply to rockhounds and our activities? For one thing, we tend to be a hobby of senior citizens with a smattering of younger members mixed in. We all need to take care and watch for symptoms. Field trips should be planned for the months with historically milder temperatures. If you do go on that trip in the summer months, try to plan to do strenuous activities in the cooler hours of the morning or evening. However, even the cooler temperatures may not be enough – the moisture is already in place, so in the morning the relative humidity is even higher, thus it is harder to cool down from just sweating. If you have to hike to your area, take plenty of water (along with sunscreen, insect repellent, etc.). Take frequent rests and keep yourself as cool as possible. Better yet, do it earlier or later in the year.

A Case of Black and White Light — Safety Matters

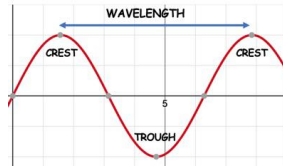
Ellery Borow, AFMS Safety Chair, from the June 2023 AFMS Newsletter



The universe is filled with energy. Its energy is all around us, all the time. It's also an energy mankind has utilized for doing amazing things. Our concern here is about the safe use of some of that black-and-white energy in the rock and mineral hobby.

But first, some background information:

Picture, if you will, ocean waves rolling on a beach. There is lots of energy there. The distance from one wave crest to the following wave crest is called a wavelength. Ocean wave crests can vary from a few inches to many yards in distance. The energy in those waves varies with the longer and shorter wavelengths. In the universe, we have waves of a different nature, that of electromagnetic energy. The waves of energy there are named cosmic rays, gamma rays, x-rays, ultraviolet/visible/infrared rays, Hertzian (radar and television) waves, and the very long waves of what we call our radio waves. The electromagnetic wavelengths just mentioned range from far, far, far smaller than the thickness of a sheet of paper to about half a mile long.



This spectrum of electromagnetic energy is used for studying the universe, medical imaging x-rays, lighting our homes, entertaining ourselves with television and radio, and studying rocks and minerals. We use the ultra-violet light portion of the electromagnetic spectrum in our ultra-violet ("black light") mineral lamps. In the mineral hobby, we further divide a portion of the spectrum into short ultraviolet (UV) waves and long ultraviolet waves – the short and long waves of our UV lamps.

Our star generates infrared energy – heat energy. Waves shorter than those are visible light – allowing us to see the colors red, orange, yellow, green, blue, and purple/violet. The red waves are longer, the violet ones are shorter. Beyond the visible spectrum, we have the shorter waves of the ultra-violet band. This is where the erythema rays, the sun-burning rays are found. Yes, our UV lamps can "sun" burn our skin, severely damage our eyes, and cause great harm if not used carefully. The area between the short and long UV rays is where the sunburning rays reside.

It used to be that UV lamps were expensive due to housings, special bulbs and tubes, and costly glass filters. The people who bought such lamps were careful to use them cautiously, safely. Now-a-days relatively low-cost light-emitting diodes (LED) are proliferating.

People are having a world of fun with UV lamps and may not realize all of the safety concerns with their use. That

said, modern UV LED light designs vary greatly. Some designs may produce UV light in the danger zones. It is wise, therefore, to read the light's instructions and heed their requirements so as to use the lights with an eye to being safe. People are strongly urged not to look at the sun without proper eye protection. The sun is bright and emits UV energy. The same goes for UV lamps. While we cannot see this black light energy, the potential for damage is of great concern. The fact that we cannot see it means we may not know we are being exposed to the damaging rays.

Here are some tips to mind when using UV lamps:

- Keep the lamp from pointing at exposed skin and eyes
- Keep the lamp's shades and guards in place.
- Be careful of reflected UV light. (Yes, light can reflect from the water and other reflective surfaces, including some minerals, and cause a sunburn UNDER the brim of our hats.)
- If the UV lamp is used in a display at a rock show, ensure the lamp's UV rays cannot be seen by patrons (one may use a test rock to help with this evaluation. Note, kids love to look up into the light to see what is up there.
- At a show's UV display, place some kind of wire cloth or wire mesh at the front of the display to keep people's hands away and assure people cannot move close enough to look up into the lights. Or perhaps place a clear acrylic barrier in front of the display to protect patrons. Where that may not be possible, offer UV protective glasses/face shields. (Which adds the complexity of sterilization of the eyewear between users.)
- Also please consider posting a safety warning that the display has UV light in use. Be mindful of prolonged use of UV light – especially for volunteers in the UV display area. One will not receive a sunburn immediately upon exposure to a UV lamp; however, prolonged exposure is a problem. The closer to the light source – the greater the energy – and the greater the risk of skin and eye damage.

When in doubt about a UV lamp's risks, read and abide by its safety and use instructions. White or Black Light - Your Safety Matters.

Follow up – an LED UV lamp is a valuable teaching tool. In the mineral hobby, there are a great many experiments, tests, games, learning experiences, fun, and fascinating things to do with UV lamps, and kids love the bright colors (and I do too).

Thanks to Susan, a Midwest Federation Club member, for suggesting the subject of this article.

Shows and Activities – Upcoming Show and Activity Dates

Check with the show contact to verify the show status

June 2023

17 – 18 June, Arlington G&MC, Grapevine Convention Center, <https://www.agmc57.org/spotlight-events/show>

July 2023

- 17 – 18 July, Tulsa, OK, Tulsa R&MS, Exchange Center at Expo Square, www.tulsarockandmineralsociety.org

August 2023

- 3 – 6 August, Billings, MT, 2023 AFMS Convention and Show, Billings Hotel and Convention Center, BillingsGemClub.com
- 19 – 20 August, Bossier City, LA, ARKLATEX G&MS, Bossier Civic Center, larockclub.com

Ref: Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

Ref: January-February 2023 SCFMS Newsletter

CLUB OFFICERS FOR 2023

President: Joe Vulk
1st VP, Programs: Carolyn Grady
2nd VP, Field Trips: Julie Wilson
Secretary: Amy Vulk
Treasurer: Ling Shurtz
Editor: Don Shurtz
Contact us by e-mail: don.shurtz@gmail.com or
L.SHURTZ@gmail.com

PRESIDENT'S Message

Brenda and I really enjoyed the May meeting - a potluck social for Taco Thursday / Cinco de Mayo.

We're looking forward to seeing you at the June business meeting. Our 1st Vice President for Programs, Carolyn Grady, has booked a speaker, Mr. Bob Huntington of the Dallas Gem and Mineral Society. His presentation will be about Precious Coral.

Joe

VISITORS ARE ALWAYS WELCOME

June Meeting

Our next meeting will be Thursday, June 1st at the Bradfield Recreation Center, 1146 Castle Dr, Garland, TX 75040. The meeting will start at 7:15 and end at 8:45. For our June meeting, Bob Huntington of the Dallas G&MS will give a presentation about precious coral. Precious Coral is distinguished from other corals by its intense red or pink-orange color and its durability.

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Editor's Note: Please accept my apologies for the paucity of original content in this issue of the Chips and Chatter. On Monday, May 22, I found myself well behind the power curve to get the Chips and Chatter out by Thursday, May 25. The reuse of older articles (with some updating) and the inclusion of more articles from the AFMS Newsletter seemed to be the only way to get things together on time. I hope do better in the future. DS

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 the 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane,
[Fort Worth Gem & Mineral Club](#), meets the 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 7:15 PM, Bradfield Recreation Center, 1146 Castle Dr, Garland,
[Wild West Bead Society](#), meets 3rd Tuesday of each month at 6:30 pm, Wild Beads, 1124 S. Bowen Road, Arlington, TX

PLEASANT OAKS GEM and MINERAL CLUB of DALLAS



Meetings

First Thursday of each month. The next meeting will be April 6 at the Bradfield Recreation Center, 1146 Castle Drive, Garland, TX 75040

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 not-for-profit organization

CHIPS AND CHATTER

Pleasant Oaks Gem & Mineral Club
c/o 4004 Dublin Rd.
Allen, TX 75002-6526

To

VISITORS ARE ALWAYS WELCOME

Our next meeting will be Thursday, June 1, 2023, starting at 7:15

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Chips and Chatter

See the Chips and Chatter online for color!

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