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Affiliated: American Federation of Mineralogical Societies



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

April Birthstone – Diamond

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Diamond may be a girl's best friend, but diamond is also the best friend of anyone born in April since it is the April birthstone.

If you were to look at the various lists of the ten rarest minerals, you may expect to see diamond listed. The good news is that red diamonds will show up on those lists, but the more common clear diamonds are not even close to showing up on that list. The De Beers Company had a monopoly of the diamond market from 1900 to 2000 and kept the value of diamonds artificially high by limiting the number of diamonds sold. However, that monopoly ended when De Beers was unable to corner the market of diamonds being produced in Canada and Russia. Surprisingly, the more open market has not seen a dramatic drop in the price of diamonds. Diamonds are forever, and apparently so are the high prices for diamonds.

Diamond is composed of carbon with the atoms being packed tightly in a cubic formation. This results in a very strong structure. Diamond is the hardest known natural substance and defines the Mohs hardness of 10.

The cubic lattice structure of diamond makes it very difficult for impurities in trace amounts to end up in the structure. However, trace quantities of boron (one boron atom in one million carbon atoms) will give the diamond a blue color and trace quantities of nitrogen (also one in one million) will give the

diamond a yellow color. Green diamonds are caused by exposure to radiation. The rest of the colors are a result in minute flaws in the crystal lattice.

Unlike most minerals, diamonds form deep in the earth's mantle (yes, mantle – not the crust). They typically form at a depth of 150 to 250 kilometers (90 to 150 miles). However, some have formed as deep as 800 kilometers (500 miles) below the surface. Diamonds are transported to the surface by volcanoes and are deposited in igneous rocks, either kimberlites or lamproites.

The earliest known diamonds came from alluvial deposits in India. When diamonds were found in South Africa, it rapidly became the strongest producer of diamonds. Today about 50 per cent of the world's diamonds are mined in Central and Southern Africa. The remaining 50 per cent comes from Australia, Brazil, India, and Russia. Diamonds have been found in the United States in Arkansas, Colorado, New Mexico, Montana, and Wyoming. The "Crater of Diamonds State Park" in Arkansas is the only place in the world where the public can try their hand at finding a



diamond.

Reference:

- American Gem Society, <https://www.americangemsociety.org>
- Wikipedia, Diamonds, <https://en.wikipedia.org/wiki/>

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Shows and Activities – Upcoming Show and Activity Dates

Apr 4 – 8, Raleigh, NC, AFMS Convention/Capital Area G&M Show, Tar Heel G&MC, Kerr Scott Bldg., NC Fairgrounds

Apr 7 – 9, Siloam AR, Northwest AR G&MS, Siloam Community Bldg, www.nwarockhounds.org

Apr 14 – 15, Abilene, TX, Central Texas G&MS, Abilene Civic Center, www.new.calichetimes.com

Apr 18, IGEM set-up at Market Hall, Dallas, TX

Apr 20 - 22, Dallas, TX, International Gem & Jewelry Show Inc. (IGEM), Market Hall, www.InterGem.com

Apr 27 – 28, Ada, OK, Ada GM&FC, Pontotoc Agriplex, bobby.freeman@chickasaw.net

Apr 28 – 29, Waco, TX, Waco G&MC, Extraco Event Center

May 5 - 6, Lubbock, TX, SCFMS Convention/Lubbock G&MC Show, Lubbock Memorial Civic Center,

www.lubbockgemandmineral.org

May 26 – 27, Fort Worth, TX, Fort Worth G&MC, Will Rogers Memorial Center, www.fortworthgemandmineralclub.org

Jun 30 – Jul 1, Grapevine, TX, Arlington G&MC, Grapevine Convention Center, show@agemclub.org

Nov 17-18, Mesquite, TX, Dallas G&MS, Mesquite Rodeo Center Exhibit Hall, www.dallsgemandmineral.org

Ref:

- March - April 2018 SCFMS Newsletter
- Rock & Gem Show Calendar, <http://www.rockngem.com/show-dates-display/?ShowState=ALL>

Roger's Rock Ramblings

Roger Burford, SCFMS President

From the March – April 2018 SCFMS Newsletter



A childhood friend recently reminded me that had been interested in rocks very early and like so many of us I started with a rock tumbler kept running outside be-cause of the noise, just waiting for the time when all that waiting resulted in a small batch of highly polished rocks. As I got older I left my interest in rocks behind for many other interests. I have worked as a photographer and mechanic before joining the Navy for 20 years. After returning to my hometown (Baton Rouge, LA) I worked as a Network Administrator and Systems engineer (Computers).

About the time my back failed me my wife Liz came home and asked me if I would be interested in joining the Baton Rouge Gem and Mineral Society with her and at our first meeting together we joined. I was curious after joining if the club had any equipment to do cutting

and polishing so we could learn how to do things with the rocks we had found. I was told the club had a saw but it was broken and had not worked in years so I asked if I could bring it home and see what I could do to get it working again and in about a month I had it up and operating. When I cut my first rock on the saw, I was hooked and now I want to cut every rock I can get my hands on so I can see all the wonders nature has created. It still amazes me how different every rock can be.

Jump forward six months and I became the President of our club and it seems that I just can't keep from raising my hand when something else comes up, now I find myself your SCFMS President.

I will do my best to fulfill your expectations and look forward to meeting or hearing from you during my time as President. If you have ideas or suggestions on ways the Federation can help you enjoy our hobby please do not hesitate to let your ideas be heard.

Visit an Area Club

[Arlington Gem & Mineral Club](#), 1408 Gibbins, Arlington, TX, 1st Tuesday of each month at 7:30 pm

[Cowtown G, M, & Glass Club](#), meets the 2nd Tuesday at 7:00 pm, Corp. Emp. Rec. Association (CERA) 3300 Bryant Irvin Rd. Fort Worth

[Dallas Bead Society](#), meets 1st Saturday of each month 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](#), 2nd Wed. of each month at 7:30 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244

[Fort Worth Gem & Mineral Club](#), 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth

[Oak Cliff Gem & Min Soc.](#), 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,

Safety Matters: Mushroom Collecting

by Ellery Borow, AFMS Safety Chair
from the March AFMS New Letter

Yes, this is a great time of year for rockhounds to do some serious mushroom collecting. The mushrooms being referred to here are not those collected by mycologists, but those more specific to the rock collecting hobby. We are talking here about the mushrooms that form on the head and end of our rock splitting and gap widening chisels. Diagram #1 illustrates the mushrooms that can grow on our chisels...if we are not careful.



designed to “wear out” by mushrooming and thus protecting the expensive hammer from damage.



So, this is the time of year, as we prepare for the upcoming collecting season, to collect all the mushroom-head chisels.

Mushrooms growing on our chisels are indicative of several issues:

- that the chisel is working properly
- that the chisel may be developing dangerous fractures on its struck end
- that there may be little bits of sharp metal flying off from the mushroom forming process when its head is struck.

Once collected, we grind

down the damaged ends re-form them, and recreate new, safe, struck surfaces. So just how does one do that? Many home workshops have a metal grinding machine. Such machines are rather common in most home workshops. We use the grinding wheels to reshape the chisel’s end by grinding away the damaged parts to form a new surface. Please see Diagram #3. Water is used to cool the metal as it is being ground. Water keeps the metal cool so as not to change its metallurgical hardness or have it loose its “temper”. If your workshop does not have a grinding machine, there are without doubt, members who have such machines and might be willing to help. If not, there are sharpening services available which specialize in reforming mushroom ends chisels.

Why do mushrooms form? A bit of background information is needed to explain. Good rock hammers are expensive. Rock splitting chisels are much less expensive. If we want a thing to break, we would want the cheap chisel to break rather than the expensive hammer. Well, engineers would rather not have anything break so what they did was to create a better rock chisel. They designed chisels to have two different harnesses of the metal used in their making. The sharp end of a chisel is rather harder than the end being struck by the hammer. See diagram #2. The reason for there being two hardness is simple. The metal in the end of the chisel being struck by the hammer will absorb some of the shock, deform its shape slightly, and transfer the energy to the rock

being split. If the end of the hammer or chisel was hard, and the hammer was hard, it could end up with either the hammer or chisel being damaged. So, as a compromise, chisels are

Sharp chisels, non-mushroomed chisels are safer chisels. “Safer” because the tool can still be used unsafely - a topic to be covered under a future Safety Matters article.



being split. If the end of the hammer or chisel was hard, and the hammer was hard, it could end up with either the hammer or chisel being damaged. So, as a compromise, chisels are

We wish you all a good and safe collecting season.

Please remember that your Safety Matters!

Agate Word Search

From the April Gritty Greeting
Newsletter of the Waco Gem and Mineral Club

A A L G A E L P R U P G A T E L A C E D E R S C A
R E O S N T T E O F E N O T S M E G T H E U H E M
O S U O E N G I A C H A T E S Y S O A P T E L C O
M M O X N L W O L L E Y M R O C X P S T R S K B S
B A A E G A B T C A L I F O R N I A E T E E S C N
O S K N I P S R H A P V I E C A J L W H M L O O O
T N E C U L S N A R T O R V I T R E O U S T D N M
S U O S M F Q U E M F G E A T R T Z L N M U Y D O
W S M A A T A C N A E C G U I A T P E D L X S O H
A A R B V R I E N O I B B A R R O I R E P U S R M
N F N J L O D C D T I E D S D O Y Z A R C R R I I
A N G A U E Y E I S O T R A N S P A R E N T F C C
T B Y S U R D L I O L O A R E S S L A G U N A O H
N L R P Y N O D E C L A H C D B Y M E G A A G A I
O A T A E E A R A I N B O W I S U R S I S D E D G
M C T G Z H O B L B D L O G E F T W L Y U R N N A
F K E A O I O T L A D I L Z N T I E M E X I C A N
O C O T M C L E E A N A R B T R N T L K W E S T B
S A W E H M O L T A I D N I L R R E R S G E T P H
S N C O N C H O I D A L S A A N A A T O I R J Y H
I Y N N O B B I R C I N A C L O V U T T F L E G O
L O U S A D N V R D A G E M A L F N Q E A T I E E
G N I M O Y W S U N S E T T Y P I Y P P O P P C N
E R U T C I P A T U X E N T E L E N H Y D R O S A
C D O L O M I T I C A N B E F L O W E R F O U N D

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|------------|---------------|-----------|--------------|-------------|
| ACHATES | DENDRITIC | IDAHO | OPALITE | SWIRL |
| AGATE | DIAL | IGNEOUS | OXEN | TEXAS |
| ALGAE | DOLOMITIC | INDIA | PATUXENT | THUNDEREGG |
| BAND | DRUSY | JASPAGATE | PETOSKEY | TRANSLUCENT |
| BIG | EGYPT | JASPER | PICTURE | TRANSPARENT |
| BLACK | ENHYDRO | JEWELRY | PINK | TUBE |
| BLUE | EYE | LACE | PLUME | TUMBLED |
| BOTSWANA | FANCY | LAGUNA | POPPY | TURRITELLA |
| BRAZIL | FIRE | LANDSCAPE | PURPLE | VIOLET |
| CABOCHON | FLAME | MARBLES | QUARTZ | VITREOUS |
| CALIFORNIA | FLINT | MARFA | RAINBOW | VOLCANIC |
| CANYON | FLOWER | MEXICAN | RED | WAXY |
| CARNELIAN | FORTIFICATION | MICHIGAN | RIBBON | WOOD |
| CHALCEDONY | FOSSIL | MONTANA | SARD | WYOMING |
| CHERT | GEMSTONE | MOSS | SEMPRECIOSUS | YELLOW |
| CONCHOIDAL | GEODE | NODULE | SILICA | ZEOLITIC |
| CONDOR | GOLD | ONYX | SUNSET | |
| CRAZY | GREEN | OPAL | SUPERIOR | |

Editor's Note: Words are found forwards and backwards, up and down, and forward or backwards along the diagonals. Enjoy!

President's Message

Ling Shurtz, POGMC President

Our April 5th meeting will be special. Former club member Donnette Wagner will be taking about one of her favorite topics, opals. Plan to be there.

It is time for the International Gem and Jewelry Show (IGEM) again. Set up will be Wednesday, 18 April and the show will be Friday – Sunday, 20 to 22 April.

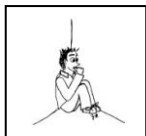
Our May 3rd meeting will celebrate Cinco de Mayo with a taco bar.

Club Officers for 2018

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

Minutes of the March 1, 2018 Meeting

Unfortunately, the minutes had not been received by publication time. The editor (that would be me) got a late start on the April Chips and Chatter, thus the request for the minutes went out late. I will try to do better in the future.



Editor's Corner, Spring Time

Don Shurtz, Pleasant Oaks Gem and Mineral Club

Spring is here. It officially arrived on March 20 at 11:43 AM. With spring comes a revival of plants with their associated pollen. And with pollen comes allergies. Sneezing, watering eyes, itching and a million other ailments are symptoms of allergies. What can you do? One thing is to stay inside and let the filters of your furnace and air conditioner do their job. But you want to get out and do some yard work (OR NOT) or take that long hike back through the meadows and forests to your favorite rock hounding site. A good dust mask will help. Your doctor may have prescribed allergy medicines – take them. Over the counter allergy, medications may also help, and there are a ton of those available in your local supermarket or pharmacy. You could ask their pharmacist for a recommendation, but they will likely give you an overview of the good and bad points of several medications and let you pick your own.

Along with all the pollen in the air, we have cool, sunny days. The sun is the operative concept here – too much of it will give you a sunburn or worse. So what can you do? One answer is the same as pollen – just stay inside, perhaps practice being a couch potato. Better yet, take advantage of the cooler weather for some rock finding trips. If it is cool enough, wear long sleeve shirts or sweatshirts. Of course, you will be wearing long pants and good boots to keep away the branches and twigs that are trying to scratch your legs and arms, and the long pants and shirt will protect your legs and arms from sunburn. A hat with a wide, 360-degree brim will help keep the sun out of your eyes, off your face, and off your neck, particularly near mid-day. Still, you will probably be tempted to take off your sweatshirt when you start digging, so a liberal coating of SPS 50 or higher sun block on your arms and other exposed area will help.

Our presentation was from The Great Courses series with a specific title of Kinds of Rocks. We were introduced to the three types of rocks (igneous, sedimentary, and metamorphic) and then delved into the forces that form the igneous and metamorphic rocks. The heat and temperature along with the source of the materials for the rocks (igneous or metamorphic) formed a predictable spectrum as to what specific rocks could form. It was interesting that this spectrum had an almost one to one mapping with the formation of minerals. In a future edition of the Kinds of Rocks we will look at the formation of sedimentary rocks.

MEETING

Our April 5, 2018 meeting will start at 7:30. Donnette Wagner will talk about opals. Donnette has a passion for opals – plan to attend. Our May 3, 2018 meeting will start early at 7:00 for a TACO bar!

VISITORS ARE ALWAYS WELCOME

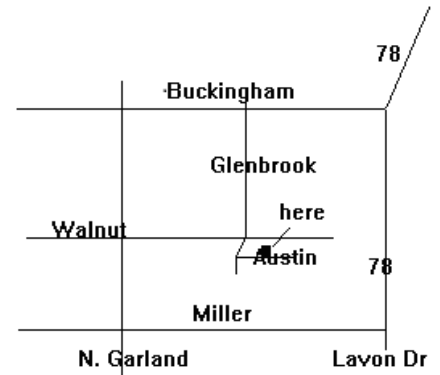
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PLEASANT OAKS GEM and MINERAL CLUB of Dallas



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

Memberships
 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: April 5, 2018, at 7:30 PM.

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