SEPTEMBER PROGRAM

Ice Cream Social & Member’s Night

September’s program will include both member’s night and an ice cream social. Member’s Night is just what it says - an evening dedicated to sharing and exploring our club member’s interests, talents, and projects.

Members will be invited to give short talks and impromptu standup presentations of 5-6 minutes each. Members can bring their show & tell displays, and the floor will be open to all members to share their interesting stories, projects and special collections or displays that they may have completed over the summer months. All members are encouraged to participate and share their summer experiences or braggin’ rocks!

There will also be a fantastic Ice Cream Social featuring delicious ice cream with a variety of toppings, along with the usual refreshments.

This will be a fun evening, so be sure to be there!

SEPTEMBER FIELD TRIP

MINGUS MOUNTAIN COALITION TRIP

On Saturday, September 22nd, we will join the Maricopa Lapidary Society on a coalition field trip to the red jasper/hematite locality on Mingus Mt. between Jerome and Prescott.

We will meet at the Mingus Mt. Recreation area on 89A, mile marker 336-337, at 9:00am and depart at 9:15.

If the area has rain one week before or is forecasted for the day, the event will be cancelled.

I’ve only been there once before, but all I think you would need is a rock hammer and bucket. A lot of it is surface collecting. If you like to attack the veins or dig deep, bring your pick and shovel. There is a short uphill climb to the collecting area so you might need a backpack to carry your water and snacks.

Hope to see you all there.
Darryl Berghorn, Sedona Field Trip Leader
(949) 939-3375  (Verizon cell)
SEPTEMBER BIRTHSTONES

Welcome back to the Sedona Gem and Mineral Club Member’s Night. It is a gathering of people with an interest in rocks of all kinds. Many have folklore attached to them and birthstones are certainly linked to many tales of luck and protection. This month is no exception. Please enjoy some of the stories surrounding the birthstones for September.

September’s birthstone, the Sapphire, was once thought to guard against evil and poisoning. It was believed that a venomous snake would die if placed in a vessel made of sapphire. Traditionally a favorite stone of priests and kings, the Sapphire symbolizes purity and wisdom. One source lists all of these attributes: Clear Thinking, Wisdom, Serenity, Purity, Truth, Faith, Love, Mercy, Victory, and Foresight, so if you are born in September, you have it made!!

Sapphires are a great choice for any occasion. With lovely deep, intense blue tones, Sapphires will truly wow you over. Sapphires are one of the few gemstones that are popular in all different shades of the rainbow. You can find them in lovely shades of yellow, green, even orange. It was thought that the stronger the sparkle of the gem, the more faithful and honest the wearer.

Alternate stones for September

Agate is the mystical birthstone for September. It is also the birth stone for the Zodiac sign of Gemini. Carmelian is one of the birthstones listed in the ancient Arabic, Hebrew, Italian, and Roman tables and is a Zodiac birthstone for the signs of Leo and Virgo.

I hope this gets you back in the swing of rock hounding whether it is outside or in a rock shop like The Village Rock Shop owned by our own Patti Polk and Mike Silberhorn!!! See you soon.

By Marge Schwartz

Member News!

Our very own Marge Schwartz was the featured jeweler of the month for August at the Sedona Treasures Gallery, located in the acclaimed Hillside Shops shopping plaza in Sedona. Marge’s work incorporates exquisite beaded jewelry designs featuring beautiful hand cut cabochons by her husband (and fellow club member) Bill Schwartz. All of Marge’s pieces are one-of-a-kind, and she creates her desings without patterns so that every piece is as unique as the particular stone it encases.

"I think each stone has a story to tell" Marge says, "I make that story complete with my jewelry designs”. The beading process gives her the flexibility to incorporate other stones and beads into the piece resulting in a medley of color and texture.

Marge’s lovely jewelry may be purchased at Sedona Treasures Gallery, 671 State Route 179, at the Hillside Shops, or at the Village Rock Shop of Sedona, 6101 State Route 179, in the Village of Oak Creek.

Two of Marge’s fantastic creations, available at the Village Rock Shop, in the Village of Oak Creek.

Another club member, Keran O’Brien, was honored July 8 by IASON Labormedizen in Austria for 10 years of outstanding achievements as Chief Scientist for their Aircrew Dosimetry Department. Professor O’Brien’s work has supported the Aircrew Dosimetry Dept. since its creation in 2002. Mr. Artner honored O’Brien with an award at the annual company celebration in a Pollau, Austria, Museum exhibit of Austrian Nobel Prize Winner Victor Hess. Professor Hess was one of O’Brien’s professors while at Fordham University in New York and is credited with the discovery of cosmic rays in 1916.

Professor O’Brien is a well-published and recognized Cosmic Ray physicist known throughout the international scientific community for his decades of research in the field. Neighbors in the Village of Oak Creek know Keran has celebrated his 80th birthday in 2011 and continues to work at a professional level. O’Brien says, “Physics is fun! Why would anyone want to do anything else?”
What is a Fluorescent Mineral?

All minerals have the ability to reflect light. That is what makes them visible to the human eye. A few minerals have an interesting physical property known as “fluorescence”. These minerals have the ability to temporarily absorb a small amount of light and an instant later release a small amount of light of a different wavelength. This change in wavelength causes a temporary color change of the mineral in the eye of a human observer.

The color change of fluorescent minerals is most spectacular when they are illuminated in darkness by ultraviolet light (which is not visible to humans) and they release visible light. The photograph above is an example of this phenomenon.

Fluorescence in More Detail

Fluorescence in minerals occurs when a specimen is illuminated with specific wavelengths of light. Ultraviolet light, X-rays and cathode rays are the typical types of light that trigger fluorescence. These types of light have the ability to excite susceptible electrons within the atomic structure of the mineral. These excited electrons temporarily jump up to a higher orbital within the mineral’s atomic structure. When those electrons fall back down to their original orbital a small amount of energy is released in the form of light. This release of light is known as fluorescence.

The wavelength of light released from a fluorescent mineral is often distinctly different from the wavelength of the incident light. This produces a visible change in the color of the mineral. This “glow” continues as long as the mineral is illuminated with light of the proper wavelength.

How Many Minerals Fluoresce in UV Light?

Most minerals do not fluoresce. Only about 15% of minerals have this ability and every specimen of those minerals does not fluoresce. [2] Fluorescence usually occurs when specific impurities known as “activators” are present within the mineral. These activators are typically cations of metals such as: tungsten, molybdenum, lead, boron, titanium, manganese, uranium and chromium. Rare earth elements such as europium, terbium, dysprosium, and yttrium are also known to contribute to the fluorescence phenomenon. Fluorescence can also be caused by crystal structural defects or organic impurities.

In addition to “activator” impurities, some impurities have a dampening effect on fluorescence. If iron or copper are present as impurities they can reduce or eliminate fluorescence. Furthermore, if the activator mineral is present in large amounts, that can reduce the fluorescence effect.

Most minerals fluoresce a single color. Other minerals have multiple colors of fluorescence. Calcite has been known to fluoresce red, blue, white, pink, green and orange. Some minerals are known to exhibit multiple colors of fluorescence in a single specimen. These can be banded minerals that exhibit several stages of growth from parent solutions with changing compositions. Many minerals fluoresce one color under short-wave UV light and another color under long-wave UV light.

Fluorite: The Original “Fluorescent Mineral”

One of the first people to observe fluorescence in minerals was George Gabriel Stokes in 1852. He noted the ability of fluorite to produce a blue glow when illuminated with invisible light “beyond the violet end of the spectrum”. He called this phenomenon “fluorescence” after the mineral fluorite. The name has gained wide acceptance in mineralogy, gemology, biology, optics, commercial lighting and many other fields.

Many specimens of fluorite have a strong enough fluorescence that the observer can take them outside, hold them in sunlight then move them into shade and see a color change. Only a few minerals have this level of fluorescence. Fluorite typically glows a blue-violet color under short-wave and long-wave light. Some specimens are known to glow a cream or white color. Many specimens do not fluoresce. Fluorescence in fluorite is thought to be caused by the presence of yttrium, europium, samarium or organic material as activators.

Lamps for Viewing Fluorescent Minerals

The lamps used to locate and study fluorescent minerals are very different from the ultraviolet lamps (called “black lights”) sold in novelty stores. The novelty store lamps are not suitable for mineral studies for two reasons: 1) they emit long-wave ultraviolet light (most fluorescent minerals respond to short-wave ultraviolet); and, 2) they emit a significant amount of visible light which interferes with accurate observation, but is not a problem for novelty use.

The scientific-grade lamps used for mineral studies have a filter that blocks most of the visible light that will interfere with observation. These filters are very expensive and are partly responsible for the significantly higher price of scientific lamps.

Practical Uses of Fluorescence in Minerals

Fluorescence has some practical uses in mining, gemology, petrology and mineralogy. The mineral scheelite, an ore of tungsten, typically has a bright blue fluorescence. Geologists prospecting for scheelite sometimes go out at night with fluorescent lamps to look for deposits. They also use fluorescent lamps to examine core specimens and well cuttings. These exploration procedures have also been used for other minerals.

Fluorescent lamps can be used in underground mines to identify and trace ore-bearing rocks. They have also been used on picking lines to quickly spot valuable pieces of ore and separate them from waste.

Many gemstones are sometimes fluorescent including: ruby, kunzite, diamond and opal. This property can sometimes be used to spot small stones in sediment or crushed ore. It can also be a way to associate stones with a mining locality. For example: light yellow diamonds with strong blue fluorescence are produced by South Africa’s Premier mine and colorless stones with a strong blue fluorescence are produced by South Africa’s Jagersfontein mine. The stones from these mines are nicknamed “Premiers” and “Jagers”.

In the early 1900’s many diamond merchants would seek out stones with a strong blue fluorescence. They believed that these stones would appear more colorless (less yellow) when viewed in light with a high ultraviolet content. This eventually resulted in controlled lighting conditions for color grading diamonds.

Fluorescence is not routinely used in mineral identification. Most minerals are not fluorescent and the property is unpredictable. Calcite provides a good example. Some calcite does not fluoresce. Specimens of calcite that do fluoresce glow in a variety of colors including: red, blue, white, pink, green and orange. It is rarely a diagnostic property.
CLASSIFIED SECTION

This is a section dedicated to club members for sharing information about items or services that they would like to buy, trade, or sell. If you would like to submit information to be included in the classified section, please email Patti P. with your complete announcement at rockhound_86326@yahoo.com before the end of the month to be included in the next month’s newsletter.

Wire Wrapping Classes
Learn to make wire wrapped jewelry. A 3 hour class is $40.00 (non members) or $25.00 for Sedona Gem and Mineral club members. Limit of 4 students per class. You can see my work at www.akobaart.com. My work is also for sale. If you would like to purchase jewelry or sign up for a class, contact Amy at paintrocks@hotmail.com, or call 928-451-6339.

Lapidary Equipment For Sale
For sale. Raytech 4 inch Jem Saw in good condition with ten brand new 4” Pro-Slicer diamond blades - $250.00 for all. Also have 15 brand new Pro-Slicer 6” diamond blades for sale- buy the lot for $150.00, or individually for $15.00 each. These four and six inch blades sell for over $20.00 each. Also for sale: Brand new Raytech Yellow Blazer 12 inch diameter saw blade- $50.00, and a brand new Raytech Red Blazer 14 inch diameter saw blade- $65.00. Rough for sale by appointment. Selling off all my rough, including petrified wood. Everything is $1.00 pound, or make an offer for all of it. Contact Greg Capatch at (928)554-4615.

For Sale: White Mineral Oil
White mineral oil for lapidary saws. $20.00 per gallon. Call Garry at 300-3582 for more info or directions.

Attention Club Members!
If you have any member news or announcements that you would like included in the newsletter, email the information to Patti Polk before the 30th of the month at: rockhound_86326@yahoo.com

NEW CLUB MERCHANDISE INFO

The Sedona Gem & Mineral Club now has hats and embroidered patches for sale. Hats are $12.00 and Patches are $4.00. Support your club and show your enthusiasm for our hobby!

Also, if you are a club member and would like to purchase a membership badge, the cost for a badge is $6.00.

MEMBERSHIP APPLICATION

(please print)

Name__________________________
Address_______________________
City___________________________ State____ Zip_____

Contact Phone Number__________

Email Address___________________

Membership Desired (Please Check One):
- Individual membership $15.00
- Family membership $25.00
- Junior (9-18) membership $5.00
- If a family membership, please list the names of family members below:

If you would like a club badge, please include $6.00 (per badge) with your application.
- Would you like __________ Yes No
- Club Badge(s)? __________ Quantity _______

Would you like to receive your Newsletter by:
- Post Office (printed B/W) __________
- Email (color) __________

You may mail this application with your dues and badge fees (if applicable) to:
Sedona Gem & Mineral Club
P.O. Box 3284 Sedona, AZ, 86340

QUESTIONS?
Call Garry Kappel @ (928) 634-4698 or Greg Capatch @ (928) 554-4615
http://www.sedonagemandmineral.org
OCTOBER 2012

13-14 SIERRA VISTA, ARIZONA: Annual show; Huachuca Mineral & Gem Club; Cochise Community College; 901 N. Columbo Ave.; Sat. 9-5, Sun. 10-4; free admission; demonstrations, educational displays, fluorescent display, gems, jewelry, raffles; contact Maudie Bailey, (520) 378-6291 e-mail: gmbailey@msn.com Web site: http://huachucamineralandgemclub.info

20-21 SEDONA, ARIZONA: Annual show; Sedona Gem & Mineral Club; Red Rock High School; 995 Upper Red Rock Loop Rd.; Sat. 10-5, Sun. 10-4; adults $2, children free; more than 40 dealers, jewelry, rough and polished rocks, gems, minerals, states, Kids’ Corner, raffles, grand prizes; contact Gayle Macklin, (520) 921-0100; e-mail: gayleis@gmail.com. Web site: www.sedonagemandmineral.org

NOVEMBER 2012

2-4 BLACK CANYON CITY, ARIZONA: 36th annual show & sale; Braggin Rock & High Desert Helpers; High Desert Park; 19001 Jacie Ln.; Fri. 9-4, Sat. 9-4, Sun. 9-4; free admission; dealers, demonstrators, minerals, gemstones, jewelry, fossils, crystals, tools, equipment, books, lapidary supplies, gold panning, capping, beading, wire-wrapping, faceting, stone carving, gem setting, raffle, rock identification; contact Don Ingalls, (623) 374-0202; e-mail: riverdiva@gmail.com

3 TUCSON, ARIZONA: 11th annual silent auction; Old Pueblo Lapidary Club; clubhouse; 3118 N. Dale; Sat. 9-2; free admission; contact Danny Hamsen, (520) 721-8452; e-mail: drrock2000@gmail.com; Web site: www.lapidaryclub.org

3-4 PHOENIX, ARIZONA: Retail show; Sharon Szymanski and Val Latham; El Zaribah Shriners Auditorium; 552 N. 40th St.; Sat. 10-5, Sun. 10-4; adults $3, children (under 12) free with adult; dealers, fine and costume jewelry, fossils, minerals, rough slabs, cabachons, crystals, copper, beads, lapidary equipment and supplies, wirewrappers; contact Sharon Szymanski, (480) 215-9101; e-mail: goldcanyon2@yahoo.com