SLABS & CABS

OFFICIAL BULLETIN OF THE GULF COAST GEM & MINERAL SOCIETY

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August 2009
Volume 48
Number 8

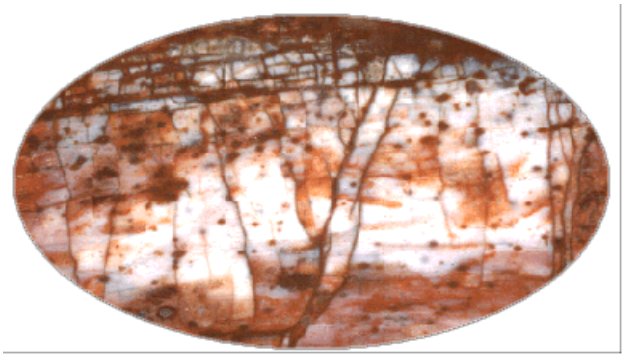
Next Meetings

General meeting
15 September 2009
Watergarden Room
Corpus Christi
Museum of Science & History
1900 No. chaparral
6:30 PM

Board Meeting
8 September 2009
Main Library 6:30 PM

Membership Fees for 2010

Membership dues for 2010 are due in January 2010
We have 4 types of memberships and they are as follows:
Single $ 15.00
Spousal $ 20.00
Junior $ 5.00
This is for any member from the age of 6-17 years Of age
Honorary
Dona Grimes, Membership chair lady



Petrified Wood
Agua Fria
Brewster County Texas
Agate & Picture By
Art Worley

INSIDE

We are on-line
www.gcgms.org
Thanks to Chris Davis of Spurfire and Owen Hopkins For getting us back up and running! Take a look.

Minutes of the July 2009 Board Meeting of the Gulf Coast Gem & Mineral Society

Held 07/07/09 at the Corpus Christi Main Library. The meeting was called to order at 6:40 p.m.

Board members in attendance were Gene Schade, Dick Cline, Suzy Nick, Kevin Schleicher, Jerrold Simpson and Linda Simpson.

Membership report – none

Minutes – Jerrold Simpson moved to approve June board meeting minutes and Suzy Nick seconded. Approved

Treasurer report –Gene Schade gave treasurers report. Linda Simpson moved and Jerrold Simpson seconded, Treasurer's report approved.

Shop report – Dick Cline reported that the new saw blade is bent. The hole in the roof is fixed.

Fieldtrip report – The Simpsons and the Hinkles went to Bandera where they went through the rocks being sold and made some purchases. Dick Cline went to the Black Hills. Gene Schade said the Diamond exhibit at the Houston Museum of Natural Science was worth the trip.

Show report –Jerrold Simpson is sending out the letter for show dealers. A workday is needed at the storage.

Education – Jerrold Simpson can be contacted for scholarship applications and they will be given out at the show. Linda Simpson is working with Owen on school projects.

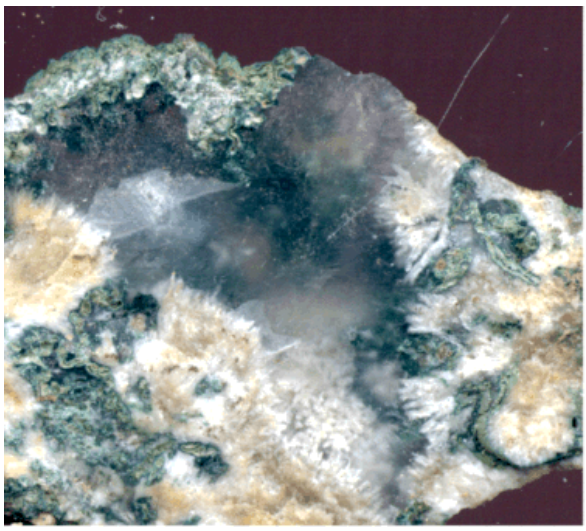
Federation – Linda Simpson has been asked to be Region 3 Vice-President for the South Central Federation by Mary Trammell and Ed Reis.

Old Business – Bylaws revision-board members still need to review and bring suggestions to next meeting.

New Business – Officers need to be selected for next year.

Motion to adjourn by Jerrold Simpson, second by Gene Schade, meeting adjourned at 8:20 p.m.

Respectfully submitted,
Kevin Schleicher,
Secretary GCGMS 2008-2009

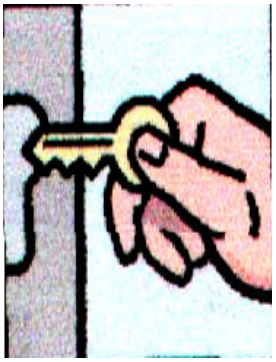


Pom Pom Green Moss Agate
Sierra Aguja
Brewster County Texas
Agate & Picture By
Art Worley

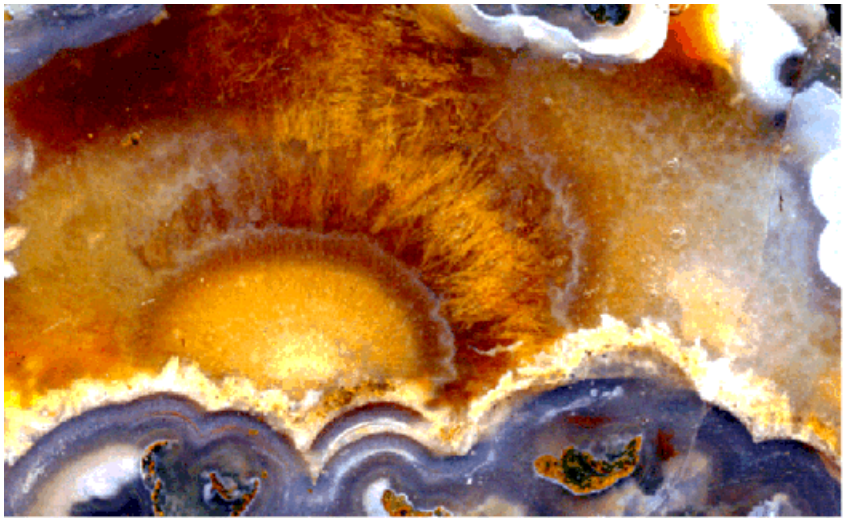
GCGMS Lapidary Shop Rules

1. The lapidary shop equipment may not be used by anyone who has not signed a liability waiver.
2. Shop equipment use flat fee is $2.00 per hour. Sign in on arrival.
Pay Supervisor and sign out before leaving the shop.
3. "Open shop" hours are to be used only by those who have taken the cabochon class or have shown proficiency on the equipment.
4. All children under the age of 17 must be accom panied by an adult trained on the use of the equipment.
5. Supervisor must inspect rock "set-up" prior to anyone starting slab saw.
6. Long hair should be tied back, loose sleeve should be secured, and safety procedures fol lowed.
7. Safety glasses are recommended and are the responsibility
of the individual. Some are furnished
by the GCGMS, or you may bring your
own.
8. The last person to use a piece of equipment before the shop closes is responsible for cleaning that piece of equipment and the work area. This may include tabletop, sponges, aprons, catch trays, etc.
9. Shop Supervisor is the final authority on shop rules and usage.

Revised May 2009



Those with keys to the Lapidary Shop are
Mike McCraw—361-993-6425
Jerrold Simpson—361-851-8788
Cell - 361-877-3073
Hank Swan—361-993-9861/361-857-2405
Richard Cline—361-853-8084
Please call one of these when you would like to use the shop. They will not all be available at the same time, and once in a while none of
them will be available Most of the time at least one of them should be able to work out a time and date the shop could be open for you.
Remember the club has a lot of good equipment to use.
Several different classes are being conducted on Monday evening from 6:00 PM to 9:00 PM. The shop is open during these times for use of the equipment even if you are not involved in a class. Shop is also open Saturday 9:00 Until Noon.



**Pom Pom Agate
San Carlos Mexico
Agate & Picture By
Art Worley**

August Birthstone, Peridot

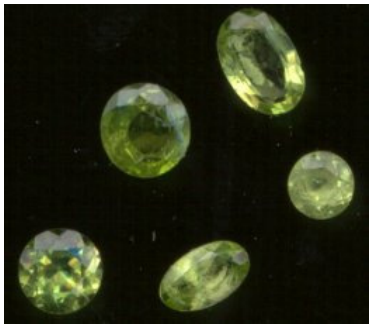
If you were born in the Month of August, your birthstone is peridot (pronounced: pair-uh-dough), a transparent yellowish-green, Magnesium/Iron Silicate. Peridot is actually a gem variety of the mineral Chrysolite or Olivene and its chemical formula is given by: $(Mg,Fe)_2SiO_4$.

The ratio of Magnesium and Iron in the crystal is highly variable and the name Forsterite (Fo) is applied to Magnesium-rich/Iron-poor crystals whereas the name Fayalite (Fa) is applied to Magnesium-poor/Iron-rich crystals. Sometimes the formula may be expressed as some ratio such as Fo^{44}/Fa^{56} for an example that is 44% Magnesium Silicate and 56% Iron Silicate. For gemoligic purposes, the $(Mg,Fe)_2SiO_4$ formula is entirely useable. Crystals are often flattened and much peridot is found in granular masses or embedded grains in a finer grained basic igneous rock such as basalt or gabbro. Peridot has a distinct cleavage (breakage along preferred planes) and a conchoidal (shell-like) fracture. It ranges from about 6.5 to 7 on Mohs hardness scale. Peridot is fairly dense with a specific gravity (weight of the crystal compared to the weight of an equal volume of water) ranging from about 3.27 to 3.37.

Peridot crystallizes in the orthorhombic system---there three crystallographic axes that are perpendicular to one another but all are of different lengths. Orthorhombic crystals have two non-crystallographic axes along which light travels at fixed velocities. These are called optic axes and since there are two, orthorhombic crystals are said to be biaxial. The refractive indexes (the numerical measures of how much a light beam is bent and slowed down when it enters a substance) of peridot range from about 1.654 to 1.690. Peridot has three refractive indexes, two of which remain fixed and one that is variable and numerically between the upper and lower index.

The birefringence (numerical difference between the highest and lowest refractive indexes)of peridot is fairly high: 1.690 - 1.654 = 0.036. What this tells us is that when a beam of light enters the crystal, it is refracted (bent and slowed down) such that whatever is viewed through the crystal is seen as a split image. This fact is very valuable to the jeweler or gemologist for when one views a faceted peridot through the table of the stone, the junctions of adjacent facets are strongly doubled. Inclusions in peridot are also strongly doubled. Peridot may have small inclusions of biotite (brown), chromite (black), pyrope garnet (dark red), spinel (tiny octahedra) or liquid and gas-filled inclusions that resemble fried eggs. The strong doubling of facet junctions and inclusions as well as the pale yellowish green color are very characteristic of peridot.

Common substitutes for peridot include synthetic sapphire and synthetic spinel. Both of these are isotropic (have but one refractive index) and doubling will not be observed. Glass will show some elongated bubbles and no doubling.



Faceted peridot, Arizona.

**Rough peridot crystals,
San Carlos Apache Reservation, Arizona.**

Show Dates

September 2009

5-6 ARLINGTON, TX: 51st Annual Show, "Nature's Kaleidoscope"; Arlington Gem & Mineral Club; Arlington Convention Center, 1100 Ballpark Way;
Sat 10-6, Sun 10-5; Adults $6, Seniors & Children $3; dealers, jewelry, beads, gems, minerals, fossils, Kids' Korner, Rock Food Table, professional
gem identification, silent auctions, hourly door prizes; contact Karen Cessna, 1408 Gibbins Rd, Arlington, TX 76011, (817) 277-2286; e-mail:
cessnak@ont.com; Website: www.agemclub.org

5-7 - SILVER CITY, NM: 26th Annual Show; Grant County Rolling Stones Gem & Mineral Society; Silver City Recreation Center, 11th St and Gold St;
Sat & Sun 10-5, Mon 10-4; Free Admission; 60+ dealers from US, Mexico and Asia, free daily field trips, silent auction, Wheel of Fortune, raffles;
contact L. Lett, (575) 538-3216; e-mail: show09@stockmanfamily.net; Website: http://rollingstonesgms.blogspot.com/

12-13 - SILOAM SPRINGS, AR: Annual Fall Swap; Northwest Arkansas Gem & Mineral Society; Clubhouse, Hwy 43, just north of Siloam Springs; Sat
9-5, Sun 10-5; Free Admission; Kids gem wash auction; contact Dave Leininger, (479) 263-1324; e-mail: Hulagrub@aol.com; Website:
www.nwarockhounds.org

18-20 - ENID, OK: Enid Gem & Mineral Society; 4125 W Owen K Garriot Rd, 1705 S Johnson St; Fri 9-6, Sat 9-6, Sun 10-5; contact Billy Wood,
1705 S Johnson St, Enid, OK 73703, (580) 234-5344; e-mail: baronladislaus@att.net

30-4 - IDABEL, OK: Annual Show & Sale: McCurtain Gem & Mineral Club; Museum of the Red River, 812 SE Lincoln Rd; Free Admission; Wed 9-5,
Thu 9-5, Fri 9-5, Sat 9-5, Sun 9-5; contact Cephis Hall, (580) 494-6612

Pom Pom Green Moss Agate
Sierra Aguja
Brewster County Texas
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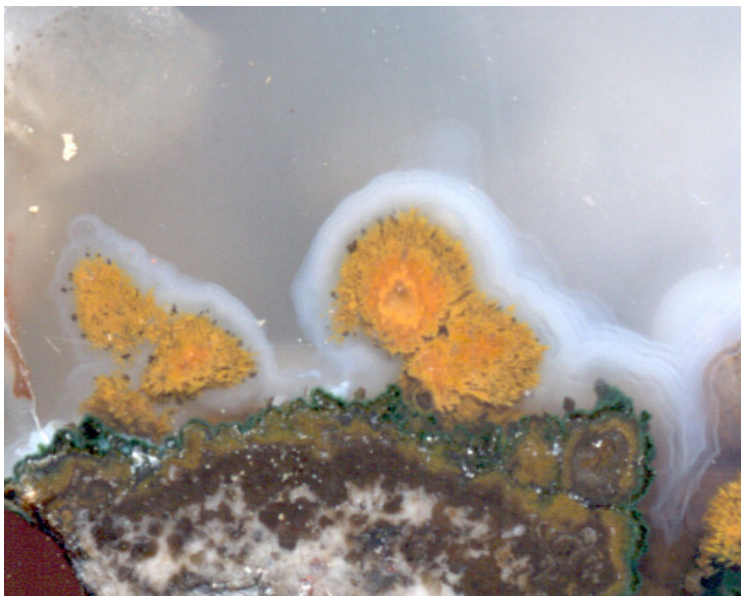


Historically, the use of peridot goes back several thousands of years. Egyptians enslaved the people of St. John's Island in the Red Sea and forced them to mine peridot for use in ornaments and jewelry. Fine gem peridot has also been mined near Mogok, Burma, and Minas Gerais, Brazil. Some fine gem peridot has recently been found in Pakistan. Volcanic bombs containing small peridot crystals of nice gem quality have been found in basaltic rocks New Mexico and Arizona. The San Carlos Apache Reservation in Arizona has yielded numerous stones that are in the 4 to 5 carat range as uncut rough. Historically, most peridots have small and few finished stones larger than 10 or 15 carats in weight were available. In recent times, some large finished stones from Myanmar in the 40 to 50 carat weight range were recorded. The Pakistan sources have produced some stones weighing over 100 carats and a very large stone that weighed over 300 carats.

Oregon Sunstones

reprinted from an February, 1987 Oregon Geology article by Ron Geitgey, DOGAMI

Oregon sunstone, also known as heliolite, is a transparent feldspar with colors ranging from water clear through pale yellow, soft pink, and blood red to (extremely rare) deep blue and green. The color appears to vary systematically with small amounts of copper and may depend on both the amount and the size of individual copper particles present in the stone.

Pale yellow stones have a copper content as low as 20 parts per million (ppm) (0.002 percent), green stones contain about 100 ppm per million (0.01 percent), and red stones have up to 200 ppm (0.02 percent) copper. Some of the deeper colored stones have bands of varying color, and a few stones are dichroic, that is, they show two different colors when viewed from different directions.

Many stones appear to be perfectly transparent at first, but when they are viewed in just the right direction, a pink to red metallic shimmer flashes from within the stone. This effect is called "schiller" or "aventurescence" and is caused by light reflecting from minute parallel metallic platelets suspended in the sunstone. When viewed along their edges, the platelets are invisible to the naked eye; when viewed, however, perpendicular to their surfaces, they reflect light simultaneously from each platelet, creating a mirror effect. Earlier studies of the Lake County feldspar suggested that the platelets were hematite (iron oxide), but the most recent research concludes that they are flat crystals of copper metal.

The terms "sunstone" and "heliolite" (from Greek helios, meaning sun, and lithos, meaning "stone") have been used for at least two centuries for feldspars exhibiting schiller. The Lake County occurrence was first reported in 1908, and the presence of the schiller effect was the original reason for naming the stones sunstones. For decades, however, the term "sunstone" has been used for these Oregon gem feldspars both with and without schiller.

Oregon sunstones are a calcium-rich variety of plagioclase feldspar named labradorite, a common mineral in basaltic lava flows. All three known sunstone occurrences are in small basalt flows that superficially resemble basalt flows elsewhere in the state that contain large feldspar phenocrysts or megacrysts. However, feldspars in those flows are typically cloudy to opaque and relatively small compared to those in the sunstone flows, which are clear, glassy, and can be up to 2 or 3 in. in one dimension.

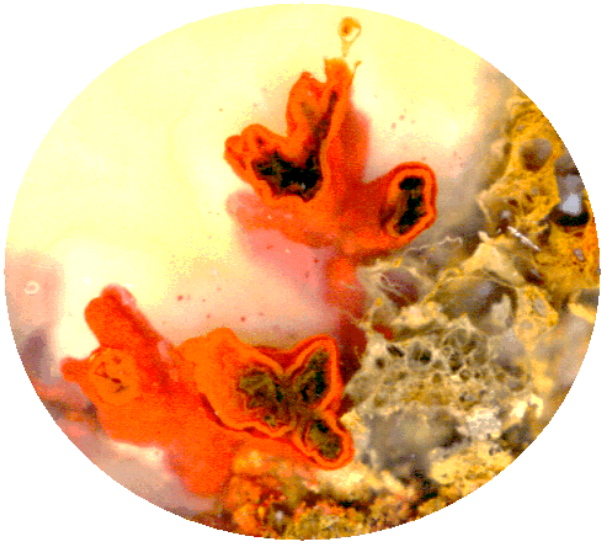
-No detailed information has been collected on the geology, petrography, or chemistry of the known sunstone flows, so no meaningful comparisons can be made between them or with other flows in the area. The sunstone flows appear to be small; the Lake County occurrence covers about 7 sq. mi., and the two Hamey County occurrences are probably less than 1 sq. mi. each. Considering the regional geology and the wide separation between the flows, it is probable that there are more sunstone occurrences in the area.

Sunstones are mined from the soil and partially decomposed rock formed by weathering of the lava flows. The surface debris is dug with pick and shovel and sieved through a quarter-inch screen, and the sunstones are separated from rock fragments by hand. In some local areas, the lava flows are weathered to a depth of several feet, and good stones have been recovered from pits dug into these zones. Hard-rock mining techniques have been used on unweathered parts of the flows, but the sunstones are often shattered along with the lava, and recovery of large unbroken stones is difficult.

Except for part of the Lake County occurrence, all three producing areas are held by mining claims and are not available for collecting without permission of the claim owners. About 2 sq. mi. of the Lake County flow have been withdrawn from mineral entry and established by the U.S. Bureau of Land Management (13LM) as a free public collecting area. This sunstone area is located off the northeast flank of the Rabbit Hills about 25 mi. north of Plush and 80 mi. northeast of Lakeview. Maps, directions, and information on road conditions are available from the BLM District Office in Lakeview.

Varieties of feldspars used as gemstones are valued for their colors or optical effects. Being typically translucent to opaque, they are normally cut in rounded forms or cabochons. Transparent gem feldspars, particularly calcium-rich varieties, that can be cut as faceted stones are rarer. Occurrences of transparent labradorite have been reported from Arizona, California, New Mexico, and Utah, but few gems have been produced from those areas. Oregon sunstones are uncommon in their composition, clarity, and range of colors, and they occur in sufficient abundance to permit sustained production of faceted gems.

Oregon Sunstones



Red Plume Agate
Walker Ranch
Brewster County
Texas
Agate & Picture By
Art Worley

GULF COAST GEM & MINERAL SOCIETY, INC.
P.O. BOX 1817, CORPUS CHRISTI, TEXAS 78403-1817

MEMBER

American Federation of Mineralogical Societies

South Central Federation of Mineral Societies, Inc

Meeting

Held the third Tuesday of each month at 6:30 pm at the museum of Science & History 1900 North Chaparral September through May, and at the Lapidary Shop 3933 Timon Blvd., Corpus Christi TX for June through August.

Membership Fees

Individual $15.00 Couples $20.00 Junior (under 17) $5.00

2009 Officers

President: Suzy Nick
Vice President: Mike Mendenhall
Past President: Mike McGraw
Secretary: Kevin Schleicher
Treasurer: Gene Schade
gene@casadeoro.net

Board Appointees

Membership: Donna Grimes
Education: Owen Hopkins
Librarian: Linda Simpson
Audit: Gene SchadeShow Chair: Jerrold Simpson
Show Chair: Jerrold Simpson
Shop coordinator: Richard Cline
Field Trip Coordinator: Mike McCraw
Membership chairperson: Donna Grimes

Standing Committies

Shop coordinator: Richard Cline
Field Trip Coordinator: Mike McCraw
Membership chairperson: Donna Grimes
Federation Liaison: Bill Pattilo
Historiorn: Frances Marten
Communications: Suzy Nick
Refreshment Hostess; Letty Rodriguez
Dealer Chair: Jerrold Simpson
Bulletin Editor; Art Worley
Webmaster: Art Worley
E-mail artleew@agates123.com
Door Prizes; Gilbert Rodriguez

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Ingleside, TX 78362

Slabs & Cabs Awards
Small Bulletins
2003 4th place SCFMS

AFMS TROPHY

BULLETIN AWARD SCMS

PUBLICATION
2nd 2002 **2001 1st**
2001-4th place AFMS
2000 9th place SCFMS
1999-8th place SCFMS
1999– 9th place (new editor) AFMS