

JANUARY 2001

...2001
A Gem & Mineral



Odyssey

Join us for
The next General Meeting of the
SAN FRANCISCO GEM & MINERAL SOCIETY, INC.
on

SATURDAY, JANUARY 13, 5 PM

INSTALLATION DINNER

*Clubmembers, family, friends and guests
please come and enjoy great food and fun
as we welcome in our new officers for 2001*

■
INSTALLATION DINNER WILL BE HELD AT
THE CLUBHOUSE
4134 JUDAH (CORNER OF 46TH)
www.sfgms.org

.....
Purple minerals and ores

by Ivan Mumme

.....
Color plays an extremely important role in contributing to the beauty and popularity of precious stones. While colored stones can come in a variety of shades, gemstones possessing a distinctive purplish hue have, since time immemorial, occupied a special place in the realm of colored stones.

Not only have they been highly prized by royalty, they have also inspired thoughts and works of great and noble purpose in mankind. Further, there has always been an aura of mystery surrounding them, probably

stemming from ancient myths and legends. So it is not surprising that some spectacular amethysts (purple quartz) are found in the coronation regalia of England.

The Orb, a golden sphere some 15cm in diameter contains a glorious colored amethyst measuring 3.8cm high. Further the monarch's scepter is studded with gemstones and surrounded by beautifully cut amethyst. The Prince of Wales coronet, a circlet of pearls also contains a fine amethyst.

See **Purple**, page 6

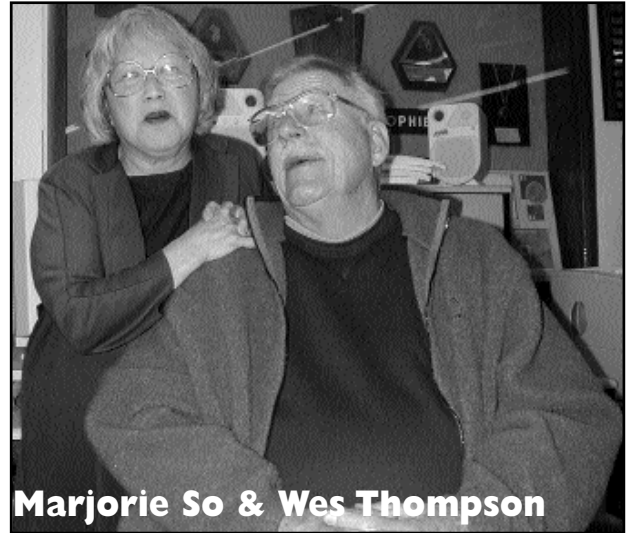
Take a look inside . . .

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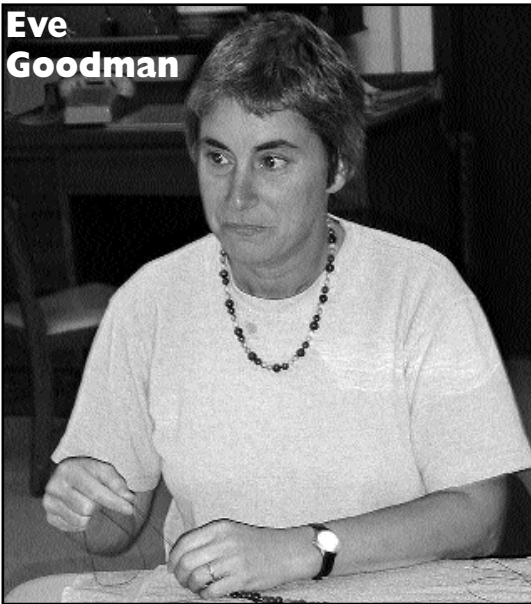


Wednesday morning beading with Marjorie So

Resumes this January



Marjorie So & Wes Thompson



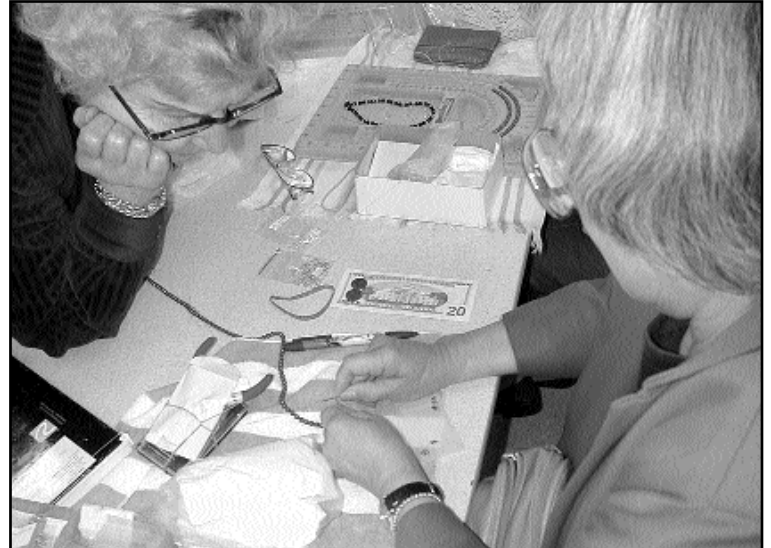
Eve Goodman



Eve Goodman has been a member since last June. She is learning techniques for stringing a necklace of lapis, malachite and austrian crystal. Vera Rogulsky has made several bracelets of Swarovski (an austrian crystal), faceted garnet, amethyst chips. (below) Marjorie gives Vera some tips on how to string (green) grossularite garnet necklace..



Vera Rogulsky





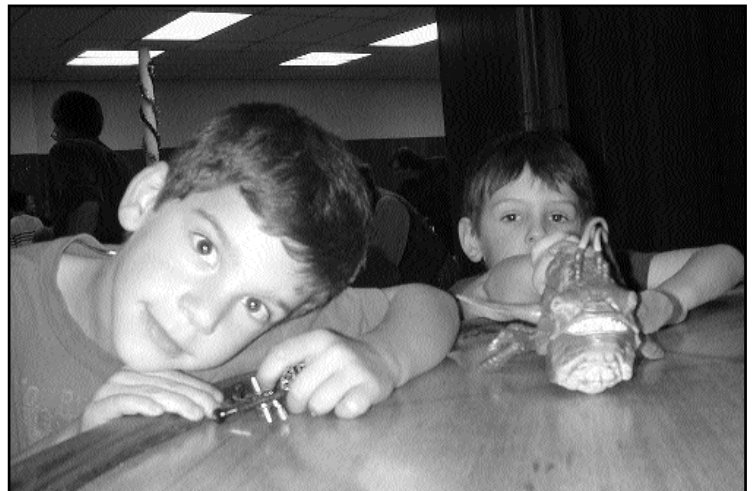
(above) SFGMS president Robert Campbell and treasurer Kara Carlson lead the auction redistributing a treasure trove of donated rocks and minerals to help raise funds for the club.

(right) Mary Sue Bucher, Ben Nott (standing), Robin Singe, Sid Brown and Wanda Turkel socialize during the party

(below) Gazing at specimens and making written bids for the silent auction.



(below) Miles Crabill and friends test out some new toys.



❄️ *Holiday Party* ❄️
 ❄️ *2000* ★

Lechuguilla Cave

[HTTP://WWW.NPS.GOV/CAVE/LECH.HTM](http://www.nps.gov/cave/lech.htm)

Lechuguilla Cave was known until 1986 as a small, fairly insignificant historic site in the park's backcountry. Small amounts of bat guano were mined from the entrance passages for a year under a mining claim filed in 1914. The historic cave contained a 90-foot entrance pit which led to 400 feet of dry dead-end passages.

The cave was visited infrequently after mining activities ceased. However, in the 1950s cavers heard wind roaring up from the rubble-choked floor of the cave. Although there was no obvious route, different people concluded that cave passages lay below the rubble. A group of Colorado cavers gained permission from the National Park Service and began digging in 1984. The breakthrough, into large walking passages, occurred on May 26, 1986.

What followed has become one of the world's most exciting cave explorations into one of the finest known caves on the planet. Since 1984, explorers have mapped 100+ miles of passages and had pushed the depth of the cave to 1,567 feet, ranking Lechuguilla as the 5th longest cave in the world (3rd longest in the United States) and the deepest limestone cave in the country. Cavers, drawn by virgin passage and never-before-seen beauty, come from around the world to explore and map the cave.

Lechuguilla Cave offered even more than just its extreme size. Cavers were greeted by large amounts of gypsum and lemon-yellow sulfur deposits. A fantastic array of rare speleothems, some of which had never been seen anywhere in the world, included 20 foot gypsum chandeliers, 20 foot gyp-

sum hairs and beards, 15 foot soda straws, hydromagnesite balloons, cave pearls, subaqueous helictites, rusticles, u-loops and j-loops. Lechuguilla Cave surpassed its nearby sister, Carlsbad Cavern, in size, depth, and variety of speleothems, though no room has been discovered yet in Lechuguilla Cave which is larger than Carlsbad's Big Room.

Scientific exploration has been exciting as well. For the first time a Guadalupe Mountains cave extends deep enough that scientists may study five separate geologic formations from the inside. The profusion of gypsum and sulfur lends support to speleogenesis by sulfuric acid dissolution. Rare, chemolithoautotrophic bacteria are believed to occur in the

cave. These bacteria feed on the sulfur, iron, and manganese minerals and may assist in enlarging the cave and determining the shapes of some unusual speleothems. Other studies indicate that some microbes may have medicinal qualities that are beneficial to humans.

Lechuguilla Cave lies beneath a park wilderness area. However, it appears that the cave's passages may extend out

of the park into adjacent Bureau of Land Management (BLM) land. A major threat to the cave is proposed gas and oil drilling on BLM land. Any leakage of gas or fluids into the cave's passages could kill cave life or cause explosions. Access to the cave is limited to approved scientific researchers, survey and exploration teams, and NPS management-related trips.



Interesting Facts Jasper's Jargon 6/99

- Television sets contain more than 35 metals.
- More than 1/3 of all gold which has ever been mined (1.1 billion troy ounces) is in various government vaults.
- Each of the many brilliant colors seen in fireworks displays is due to the presence of a particular transition metal.
- One of the oldest mining locations in the world is reputed to be Timna Valley in Israel where copper has been mined since 4000 B.C.
- In the United States, gold-bearing ore usually averages 0.1

troy ounces of gold per ton of ore.

- Face masks that astronauts wear are gold coated to protect them from the sun's fierce radiation.
- It takes 42 different minerals to make a telephone hand set.
- Gold mining in South Africa has exceeded a depth of 12,000 feet. Many mines are so deep that exposed rock often explodes due to intense pressure from rock above.
- Roman soldiers were paid in part with a salt ration called "salarium argentum." This is where the term salary comes from.

The Theo Chronicles

Grossularite, Cerargyrite and other wisdom

by Theo Steinhauer

Photo by Jon Harman



A Jade look-alike

Grossularite, a species of garnet, can occur in practically all the colors of true jades, jadeite and nephrite and it resembles jade closely in many visual appearances. Its specific gravity is high so that it can easily be distinguished from quartz and most other minerals in the field. By "hefting" it is about twice as heavy as common rock, jasper or agate.

Cerargyrite—Horn Silver

The principle silver mineral in the ores of the famous Calico District is cerargyrite, known to miners and prospectors as horn silver. It is soft 1-1.5 hardness, waxy luster, gray-ish in hand specimen, violet-brown in uv light—with a specific gravity of 5.5. Because most specimens are unattractive and must be shielded from sunlight—cerargyrite is not generally found in mineral collections.

In composition cerargyrite is silver chloride AgCl, with the silver part being 60-70% of the compound. It is sectile—easily cut by a knife—with the shavings curling away. This horn silver is often used in examples as having the property of being sectile. Also when fused by using a blow pipe or piece of charcoal, it forms a thin sheet of metallic silver.

Usually cerargyrite is formed in irregular masses and incrustations and is crystallizes in the cubic system. This mineral is formed by secondary action,

probably from the action of chlorine bearing water on one of the sulfides of silver. Most often it is found in arid regions. In the California Division of Mines and Geology bulletin 136 "Minerals of California" is a list where cerargyrite is included as well as places around California where this mineral can be found.

Tar Pits

The most favorite tar pits in North America are the Rancho La Brea, in the city of Los Angeles. Here, the tacky tar or asphalt oozes up to the surface of the ground in glossy black pools and puddles. Sometimes the dry winds cover it with films of dust. It is then hard to tell where the solid ground ends and the treacherous tar begins.

Through the ages these famous tar pits have been a death trap for wild animals. Fossil bones found in the La Brea tar pits date back 100,000 years when the earth's inhabitants were living in the cruel grip of an ice age. Saber tooth tigers, wolves, horses, camels, sloths and woolly mammoths perished in the tar. Fortunately the tar preserved all that it covered, so today we can marvel at these many prehistoric mammals.

Hide that crack in an otherwise fine stone

The secret of the art of healing frac-

tures in a cab with epoxy is to shape your stone and semi-polish it. To get rid of that nasty crack, heat that stone to 200 degrees in an oven or under a light bulb.

Mix the epoxy and apply it to one edge of the crack. Gradually apply the resin working gradually from one end of the crack to the other. This is very important. You will notice that the epoxy becomes very liquid when it touches the hot stone, and it flows right into the crack. By applying the epoxy at one end and working toward the outside edges of the cab, the air in the fracture is driven out and the epoxy replaces it. Then put the stone back in the oven or under the light and let it remain there for another 20 minutes. By this time the epoxy will harden. Scrape the surplus and proceed with your final polish. If you do this right the fracture will be very difficult to detect.



•••••
• **Theo is now living at** •
• **Eden Villa** •
• **Room 323** •
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• **phone calls** •
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•••••

Purple, from page 1

Amethyst set rings are often worn by bishops of the Roman Catholic church and Catherine the Great of Russia was particularly devoted to the deep reddish purple amethysts from Siberia. Even Cleopatra (born 69BC) and one time ruler of Egypt, prized her amethyst signet ring engraved with the figure of Maenat for warding off intoxication.

The rich purple color of some amethysts were also used as the color standard by which royal purple dyes were judged. (These dyes were obtained from the porphyra fish).

Like other colored stones, purplish ones can be transparent and/or opaque. But many would in fact be colorless if they were chemically pure. The fundamental color of a gem material is caused by the absorption of certain wavelengths from white light shining upon the specimen, thus causing the colors not absorbed to give rise to a characteristic color.

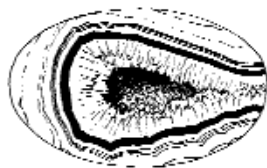
In opaque stones, this absorption takes place at or near the surface (as they do not transmit light). In transparent minerals, the absorption of the light occurs when the light is traversing the stones. White light passing through amethyst for example, has the orange, blue and green components absorbed from the spectrum. Hence the violet is transmitted which gives rise to the typical amethyst color of the stone. This optical effect causing color in the media is called selective absorption of light. However, color may also be caused by what is termed interference of the light, or caused by an iridescent tarnish on the surface of the mineral.

The purple of amethyst is but one shade in a family of hues. There are wine colored garnets, the pinkish tinged purple kunzite (a variety of spodumene), pale lilac fluorite and the blue violet dumortierite—are all amongst the many shades and tints referred to as purplish. In fact, the term purple can range from the lightest almost white lavender hue to a high density almost black purple.

Interesting purple gemstones include amethyst: birthstone for February. The name derived from Greek Amethystos meaning a remedy against intoxication, a quartz variety, hexagonal prismatic crystals, light to dark purple color, transparent to opaque, vitreous luster, hardness 7, specific gravity 2.65 and refractive index 1.54-1.55, often found in low to moderate temperature hydrothermal infillings in effusive rocks and quartzites.

Important localities around the world are Brazil, the Urals (Russia), Madagascar, Uruguay, the USA and Argentina. It is interesting to note that the amethyst from Uruguay and Brazil

sometimes contain a golden yellow to light brown goethite which produces a stunning effect. Further, amethyst from Madagascar have a balance between red purple and blue purple.



Interesting occurrences in Australia include:

1) A deposit in South Australia some 20 km southeast of Kimba, where it is found in veins up to one meter wide, and in crystal lined vugs in a recrystallized quartz dike. Its color at this location varies along the strike of the vein from palish purple to light colored red-purple.

2) Another show in south Australia is located on the crest of a low range of hills in the Hundred of Boolero, some 8 km west of Boolero center and 5 km north of Murrytown.

3) Wyloo in west Australia was once a major amethyst producing area, where it is present in quartz cutting a dolomite formation.

4) At the Corona amethyst locality some 10 km past Corona Well in the Broken Hill district. The amethyst is present in cavities and vugs in the quartz veins present in the area.

Where a violet stone is required, amethyst is admirably suited. It is hard, durable—and moderately priced. It can be faceted as a semi-precious gem, shaped into cabochons used to make decorative jewelry or art pieces.

Purpurite: name derived from the Latin *purpureus* meaning red. A rare phosphate of manganese and iron. Sometimes shaped into cabachons. Possesses a silky sheen, color varies from dark violet to dark red, hardness 4.5, specific gravity 3.4. Formed as a secondary product in pegmatites. Occurs at Chanteloube (France), Wodgina (Australia) and in California.

Tourmaline: from the Sinhalese word *Turмали*. Chemically a borosilicate of aluminum. Belongs to the trigonal crystal system and has a prismatic habit. Crystals are roughly triangular in section and deeply striated lengthwise. H 7, SG 3.05, RI 1.62-1.64. Known from ancient times, it is the gemstone with the greatest variety of colors. Some of the tourmaline from Kachiva, Zimbabwe is a very deep red purple. Purplish brown tourmalines are known from Brazil where they are commonly referred to as *Batata Roxa* (meaning "purple potato"). Such stones turn a pink color after being heated to 300-400 degrees C.

Kunzite: named after G.F. Kunz, it is a rare lithium aluminum silicate (a variety of spodumene). Monoclinic with a prismatic habit. Perfect cleavage in two directions, resistant to weathering, is found in California and Maine, Madagascar, Brazil, Burma and Afghanistan. The lilac colored spodumene—kunzite from the Afghan mines have a lively rich color with crystals often big enough for carving H 6-7, SG 3.2, RI 1.66-1.68. Faceted or shaped into cabochons, it is often cut very deep to enhance the color when pale. However, it is difficult to cut because of the perfect cleavage and tendency to splinter.

Spinel: a magnesium aluminate belonging to the cubic crystal system. Commonly occurs as octahedra color varieties other than purple, including blues, greens, reds, pinks, oranges and blacks. H 8, SG 3.6, RI 1.72, vitreous luster.

To be continued...

Platinum

Petrograph 12/95

Platinum is a precious metal, but it is not easy to work—it melts at 314 F. We have furnaces currently that can achieve such temperatures, but imagine the problems for ancient man. According to Professor John Alden Mason, Curator emeritus of the Museum of American Antiquities at University of Pennsylvania in 1960, several ornaments of melted platinum have been found on the high plateau of the Peruvian Andes. Although the techniques used to melt and form the metal are not known, there are indications that artisans of the ancient Peruvian civilization welded metals by using certain resins and molten metallic salts.



Slightly more expensive than gold, platinum looks like silver. It is not as malleable as gold, but a goldsmith, Marc Etienne Janety, working in Paris during Louis XVI's reign, discovered adding arsenic



made platinum more malleable; several pieces were made for the Royal Court—such as snuff boxes or sugar bowls and in the 1870's many jewelers began to use platinum. The effects of arsenic fumes was unknown at the time. One of the properties of platinum is its ability to be stamped into very light and lacy pieces. This style was popular during Edwardian times. Ornate feather and ribbon designs evolved and were set with diamonds and pearls, seeming to float in the metal.

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- **Surf club member Dave Chittenden's Web site:**
- **Crystal Dynamics**
- <http://crystal.anthill.com/>



Upcoming Shows, Events and Field Trips

January 9 Palo Alto, CA

Lecture at Stanford University "Puzzles left behind by the 1999 Turkish earthquakes." Peninsula Gem & Mineral Society, Jo Burchard (650) 493-9301

January 13-14 Exeter, CA

Tule Gem & Mineral Society, 324 Kaweah (Hwy 85) Hours: 10-5 both days, George Thrasher 559/686-5669

January 23-27 Quartzite, AZ

35th Annual Pow Wow, Located in the middle of town, Quartzite Improvement Association

February 8-11 Tucson, AZ

Tucson Gem & Mineral Show, Theme: Russian Minerals, Tucson Convention Center 10-5 daily

March 3-4 Arcadia, CA



Monrovia Rockhounds Inc. The Arboretum of Los Angeles County, 201 North Baldwin Avenue, Hours: 9-4:30 both days. Jo Anne Ritchey (626) 359-1624

March 24-25 Torrance, CA

South Bay Lapidary & Mineral Society, Torrance Recreation Center, 3341 Torrance Blvd, Hours: Sat 10-6, Sun 10-5, Doris Turney 310/318-2170

June 22-24 Paso Robles, CA

CFMS Show & Convention 2198 Riverside Ave. Bea & Sherm Griselle (805) 238-4366

To find out about other AFMS Club Shows:
<http://amfed.org/ClubLinks.htm>
Stanford University Lectures:
<http://caldera.wr.usgs.gov/mdi/ggles/PGS.html>

January

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FLOWER: CARNATION

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If your Birthday is not included in the list, don't fret, you simply don't age this year.

Please let the Membership Secretary know of any corrections or additions (see inside the back page for that information).



MINERALOG...

A few good volunteers are always welcome to come down to the clubhouse on the third Friday of each month to help assemble MINERALOG.

MINERALOG deadline

All submissions MUST be received in writing by fax, email or mail. January 13, 2001 for next month's issue!

Rutilated Quartz

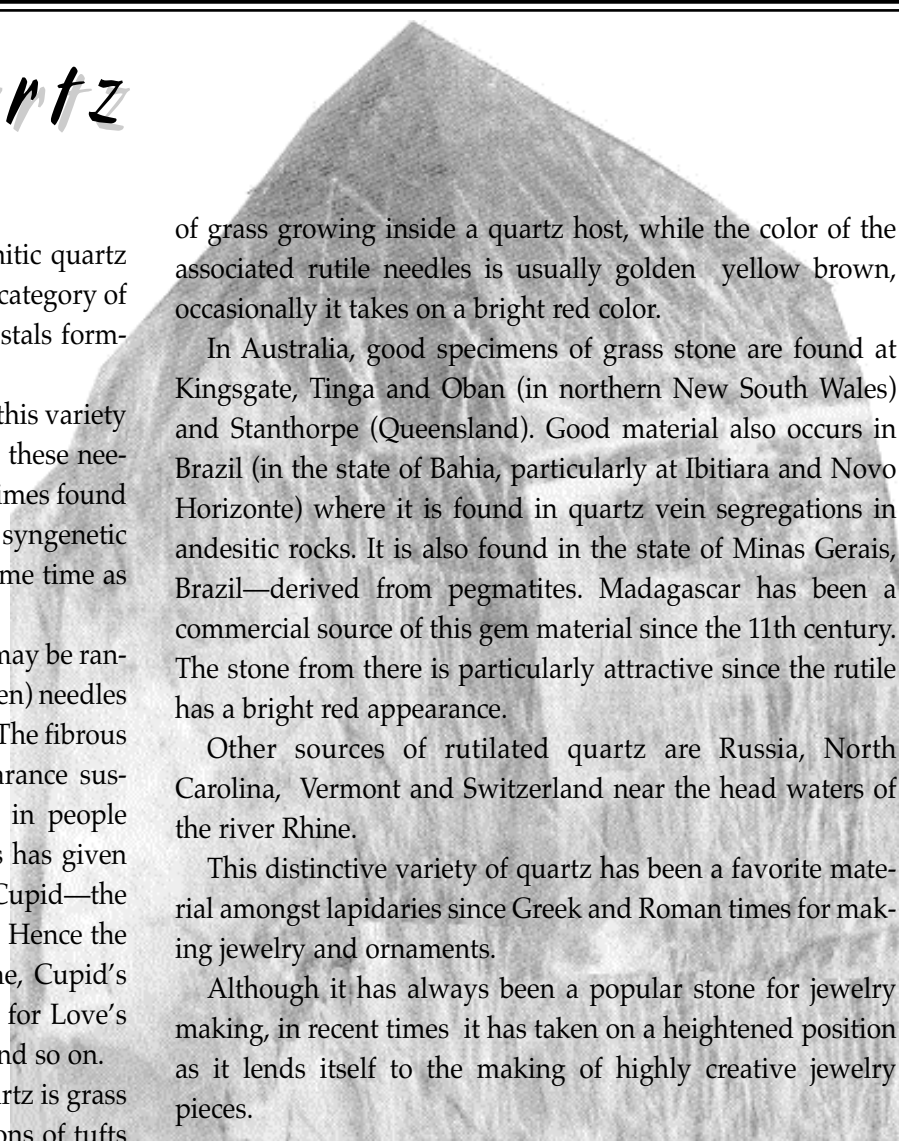
by Ivan Nummi, 9/2000

Rutilated quartz is a distinctive variety of sagenitic quartz (sagenitic quartz is a term which refers to a special category of quartz characterized by a presence of long thin crystals forming reticulated net like inclusions).

When rutile is present as the quest inclusions in this variety of quartz, this substance is rutilated quartz. While these needles generally occur in clear quartz, they are sometimes found in the smokey variety. These needles are in fact syngenetic inclusions—being formed and developed at the same time as the enclosing quartz.

On inspection it is found that the rutile crystals may be randomly arranged as groups of long (sometimes broken) needles in open divergent sprays as well as parallel arrays. The fibrous rutile crystals often light golden brown in appearance suspended in clear quartz have evoked association in people since ancient times of hair as well as arrows. This has given rise to ramoantic asociations with Venus and Cupid—the Goddess and God of Love—in Roman mythology. Hence the fancy names given to the stone of Venus hairstone, Cupid's darts, Arrows of Love, Fleches d'Amour (Frebnch for Love's arrows) Liebespfelle (German for Love's arrows) and so on.

In Australia, the popular name for rutilated quartz is grass stone as the needle like inclusions create impressions of tufts



of grass growing inside a quartz host, while the color of the associated rutile needles is usually golden yellow brown, occasionally it takes on a bright red color.

In Australia, good specimens of grass stone are found at Kingsgate, Tinga and Oban (in northern New South Wales) and Stanthorpe (Queensland). Good material also occurs in Brazil (in the state of Bahia, particularly at Ibitiara and Novo Horizonte) where it is found in quartz vein segregations in andesitic rocks. It is also found in the state of Minas Gerais, Brazil—derived from pegmatites. Madagascar has been a commercial source of this gem material since the 11th century. The stone from there is particularly attractive since the rutile has a bright red appearance.

Other sources of rutilated quartz are Russia, North Carolina, Vermont and Switzerland near the head waters of the river Rhine.

This distinctive variety of quartz has been a favorite material amongst lapidaries since Greek and Roman times for making jewelry and ornaments.

Although it has always been a popular stone for jewelry making, in recent times it has taken on a heightened position as it lends itself to the making of highly creative jewelry pieces.

Tips and Tricks

Breccia 7/2000

Don't throw your old silicon carbide grinding wheels away. When your diamond saw is not cutting well, cut into the old wheel an ince or two to expose some new chunks, and toss them in with the stones you are tumbling. Match the grits, of course. If it a 100 grit wheel, use the chunks with 100 grit powder. Save and reuse the chunks until they are used up in the tumbling process.

Rust is your worst enemy your lapidary equipment has. Lots of otherwise functional lapidary equipment gets tossed out every year because of rust damage. Now, finally there is a product that lets you repair and restore even severe cases of rust out. It is a paint called POR-15 (call 1-800-457-6715 for a free catalogue). The POR stands for paint-over-rust, and that is exactly what you can do. Just get out all the rock dust and

make sure there is no oily residue. Clean the metal with a wet SOS pad and rinse it clean. Let is dry and paint on POR-15 with a cheap brush. Level the equipment and let the POR-15 flow out smooth. If there are any holes, stick a piece of masking tape on the underside and the POR-15 will close them up nicely when it cures. This is a permanent fix. Rust will not penetrate the POR-15. A pint of POR-15 should be enough for most water pans. It cures rock-hard and shiny, but it is meant to be an under coat. Ultraviolet light (aka sunlight) will cause it to deteriorate. Scuff the surface of the POR-15 slightly with an SOS pad and paint on a coat of enamel, and you are set for a long time.

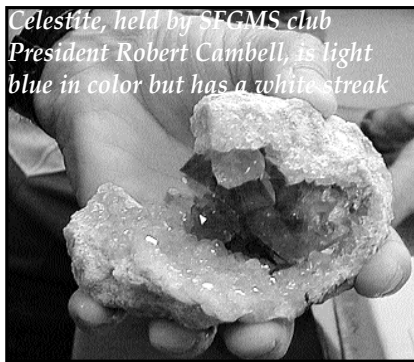
Looking for a use for those old CD-roms? Try using them for a final polish on your faceting machine. Rinse once with water and a little detergent and lace it on top of the last cutting wheel. Center it reasonably well, as the hole is slightly larger than the shaft, and clamp it down. It should be good for several stones.

Identifying Minerals with Streak Testing

by Dr. Bill Cordua

Lapidarian August 2000

Celestite, held by SEGMS club President Robert Cambell, is light blue in color but has a white streak



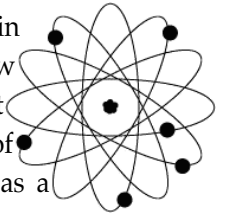
Streak tests are easy tests, helpful in mineral identification. The streak is simply the color of the powdered mineral. It doesn't matter how the mineral is powdered—you can scrape off some with a nail or pound the

mineral to bits with a hammer. More commonly, mineralogists use a streak plate, a piece of unglazed porcelain usually cut in a square or hexagon a few inches across. Streak plates have a hardness of 6.5, so if you want to test the streak of anything harder get out the hammer! Streak plates can be bought from most mineral supply houses. For example, the latest Ward's Natural Science Establishment catalog lists them at 10 for \$2.90. When they get dirty they can be cleaned by scrubbing them off with an old toothbrush. I often use some sand with water to scour off resistant streaks. If they get too dirty—heck, toss them out—they cost less than 30 cent each. When I was a kid I used the back of old bathroom tiles to make an even cheaper streak plate.

Why do a streak test instead of just looking at the color of the bulk mineral? The color of larger chunks of mineral really varies, depending on what trace element impurities may be present. Calcite, for example, can be any color of the rainbow (and a few that aren't on any rainbow). But calcite always has a white streak. So why don't the impurities color the streak? They do, but only to a slight extent. This is because light going through a small grain of mineral has less chance to interact

with the impurities than light going through a big chunk of the material. Powdering the mineral thus minimizes the effect of the impurities.

Silicates generally have white or light colored streaks. Streaks are most useful in oxides and sulfides—fun minerals to streak. Hematite's red streak is distinct from goethite's ochre streak and pyrolusite's coal black streak. Sphalerite is another mineral that can be lots of colors in a hand specimen, but always gives a yellow streak. Realgar, orange-red and orpiment bright yellow are two of the rare examples of minerals whose streak is the same color as a hand specimen.



The streak of many rocks are not distinctive—specimens usually give a light streak that reflects their dominant silicate or carbonate composition. If the specimen gives a red or brown streak it suggests the presence of iron oxides. Of course, if the rock is a coarse-grained sedimentary or porphyritic plutonic rock—you can try the streak test on individual mineral grains.

Mineral databases and texts sometimes list the streak colors and sometimes don't. It depends on the tastes of the author and the data available. All minerals have streaks (you can powder anything if you put your mind to it) but they may not help with mineral identification since hundreds of minerals have white streaks. I think when a new mineral is described, the streak should always be included. After all the material had to be powdered to do a micro-probe or xray analysis, so all some one needs to do is record the color. That would be a real help to those of us who don't have well equipped analytical labs in our basements.

Chatoyancy or Asterism *Manual of Mineralogy*

The silky appearance that some minerals have in reflected light is caused by closely packed parallel fibers or from a parallel arrangement of inclusions or cavities. Cabochons cut and polished the right way show the bands of light at right angles to the length of the fibers. This property, known as chatoyancy is shown particularly well in "satin spar" gypsum, cat's eye—a gem variety of chrysoberyl, and tiger's eye—fibrous crocidolite replaced by quartz.

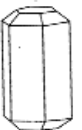
In some crystals, particularly those of the hexagonal system,



inclusions may be arranged in three crystallographic directions at 120 degrees to each other. A cabochon cut from such a crystal shows triple beams of light producing a six pointed star. This phenomenon, seen in star sapphires and rubies is termed asterism.

The brilliant asterism rarely seen in rose quartz is caused by microscopic needle-like inclusions of rutile oriented at 120 degree angles and producing a six-rayed star. Some phlogopite micas contain rutile needles in a pseudo-hexagonal pattern showing a striking asterism when held up to the light.

hexagonal, apatite crystal



SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
CLUBHOUSE CLOSED	9:30-NOON: LAPIDARY INTARSIA SILVER 7:00-10:00: LAPIDARY	9:30-NOON: LAPIDARY 1:00PM: CARVING 7:00-10:00: LAPIDARY INTARSIA BEADING	9:30-NOON: LAPIDARY MINI-INTARSIA BEADING 7:00-10:00: LAPIDARY SQUARE WIRE WAX DESIGN	9:30-NOON: LAPIDARY CARVING 7:00-10:00: LAPIDARY FACETING SILVER	2ND FRIDAY 7:00-10:00: LAPIDARY 3RD & 4TH FRIDAY 7:00-10:00: LAPIDARY BEADING	9:00AM: LAPIDARY for JUNIORS and ADULTS

JANUARY

	1 Happy New	2	3	4	5	6
7	8 7:30 MEMBERSHIP MEETING	9	10 7:30 BOARD MEETING	11	12	13
14	15	16	17 7:30 FIELD TRIPS MEETING	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



Around the Emerald Doors



**JOIN HARRY WHITE TO DISCUSS UP & COMING
FIELD TRIPS FOR 2001. MEETING STARTS AT
7:30 ON JANUARY 17TH.**

Next year's SFGMS show . . .

Rhapsody in Blue

**August 3, 4, 5, 2001
will NOT be held at the
Hall of Flowers
Golden Gate Park
Stay tuned.
We are tentatively planning
to have our show at
SOMAR
on Bryant Street
between 8th & 9th**

A word from Diane Rivera...

A special thank you of all of you who were able to lend a helping hand before, during, and after the Holiday Party. It is always such a special time because it is the few times during the year that we all get to visit with each other.



A very special thanks to all of you who brought gifts for Sonoma Home. The people that we donate these gifts too really enjoy their gifts.

While late is better than never, I would like to also thank all the ticket takers and cashiers who so kindly volunteered to help during the Annual Show 2000. We can't do it without your help and participation.

SAN FRANCISCO GEM & MINERAL SOCIETY, INC.

THE MINERALOG

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Editorial Staff	<i>Suki Quin, Kåra Rachael Carlson</i>
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Assembling and Mailing	<i>Susan Vigil, Ione and Dick Brain, Theo Steinhauer, Nick Marco, Wes Thompson, and Norm Stone, among others</i>

DEADLINE SCHEDULE

All Reports Due	<i>Second Friday of each month for the following month's issue. Combined issues are: December/January and July/August</i>
Labeling	<i>Third Friday 10:00 am</i>



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The purpose and objective of the San Francisco Gem & Mineralogical Society, Inc. is to disseminate knowledge of mineralogy, the earth sciences and the lapidary arts, and to encourage study in these subjects through means of: the presentation of public exhibitions; field trips for exploration, study and collecting of specimens; providing classes in mineralogy, the earth sciences and the lapidary arts; providing a gathering place and workshop for those interested in the study of mineralogy, the earth sciences and the lapidary arts; the presentation of programs pertaining to the fields of mineralogy, the earth sciences and lapidary arts; and all other means, which are appropriate to the accomplishment of the primary objects above set forth.

Visit the San Francisco Gem & Mineral Society's Web site: www.sfgms.org

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Participation in Federal Shows
Society's Annual Show

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