



Rockonteur

Volume 29, Issue 7

July 2019



NAME THAT ROCK

The banner photo (above) changes each month - can you identify what type of rock it is? Answer is on last page but don't peek until you've tried to guess!

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Plume Agate

The July general meeting presentation is on Plume Agates which are generally clear or milky with three-dimensional plant, bush or flower-like patterns or *plumes* floating in them.

[Article from https://www.oakrocks.net/plume-agate/](https://www.oakrocks.net/plume-agate/)

Plumes are different than dendrites, which are usually more branch-like or thin, or moss which is more mossy-like. Moss, plumes, and dendrites are usually composed of iron or manganese oxides. Often moss and plume inclusions are found together in the same rock.



White Plume Agate from Oregon

Plume agate is actually pretty common. **Friday Plume** from Oregon, **Del Norte Plume** from Colorado, **Graveyard Point Plume** found in Oregon, near the Idaho border.

Stinking Water Plume aka White Plume Agate is found near the Stinking Water creek, in eastern Oregon. This area, east of Burns, is quite famous for great rockhounding. It has white to yellowish plumes in a milky white nearly

transparent agate.

Plume agate inclusions form when iron oxide, manganese oxide, or other oxides where present during the rock formation. The color of the plumes

can vary depending on the material present when the rock forms, and in fact sometimes it can occur in multi-colors.

Agate is a type of chalcedony, usually at least slightly translucent and banded or with inclusions. It forms in concentric layers in a wide variety of colors and textures. Each individual agate forms by filling a cavity in host rock.

Agate has a hardness of about 7 on the Moh's scale. The name is derived from its occurrence at the Achatés River in southwestern Sicily.



Santa Lucia Rockhounds (SLR)

is a non-profit public benefit corporation with the specific purpose to promote the study of mineralogy, including (but not limited to) the fields of lapidary, metal working, jewelry design and fabrication, geology and conducts field trips for collecting and education. We encourage learning and good citizenship in a congenial atmosphere. We respect both private and public property, and we strive to protect natural resources. Meetings are held during the third Monday of each month, except December, at the Templeton Community Center.

We are a member of the California Federation of Mineralogical Societies (CFMS) and affiliated with the American Federation on Mineralogical Societies (AFMS). Santa Lucia Rockhounds, Inc. is also a member of the American Lands Access Association (ALAA).

Annual dues are \$20 for the first adult and \$8 each for every additional member of the same household. Annual dues are payable between August 1 and the third Monday of December, in person at club meetings or by mail to P.O. Box 1672, Paso Robles, CA 93447.

The Rockonteur

This is the official monthly newsletter of the SLR and an independent publication containing news and information consistent with the mission of SLR and of interests to its members. Circulation is approximately 100 copies per issue.

Member submissions are encouraged and may be sent to the editor. We reserve the right to accept or refuse submissions inconsistent with the objectives and purpose of the SLR. Submissions may be edited as needed without consent. Deadline are due by midnight of the last day of the month but early submissions are highly appreciated and strongly encouraged.

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Birthstones



These untreated and heat-treated rubies show a range of darker and brighter red colors.

Ruby can command the highest prices of any colored gemstone. The per-carat prices of fine-quality rubies have been rising consistently, many times breaking auction records.

For better-quality material, slight differences in color can make significant differences in value. For top-color ruby that's also free of eye-visible inclusions, the price rises even more.

The per-carat price of ruby can also increase dramatically as size increases, especially for better-quality stones.

Color

Color is the most significant factor affecting a ruby's value. The finest ruby has a pure, vibrant red to slightly purplish red color. As the color becomes too orangy or more purplish, the ruby moves down the quality scale. The highest-quality rubies have vivid color saturation.

The color must be neither too dark nor too light to be considered finest quality. If the color is too dark it has a negative effect on the stone's brightness. At the other extreme, if the color is too light, the stone is con-

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Words from the President

July is our Club 28th Anniversary!

We will celebrate with a cake, and it will be a good time to get acquainted with each other - especially with our new members!

Last year's Founder's Award recipients - the Clark Family - will announce this year's award recipient.

The Founders Award was started in 1991, by our Club Founders. It is given yearly to person or family, who steps forward and excels in different areas. Plus, Gene Bilyeu is showing a DVD on plumb agates for our program this month. Members are encouraged to bring in their plumb agates for a Show & Tell.

Summer is here, school is out, and we have two field trips scheduled this month thanks to Tina and Kim.

The first field trip is on Saturday, July 6 to a private ranch in Parkfield. The second one is on Saturday, July 20 to a private ranch located on Hwy 46W. Go to the Club Meetings & Events section on page 4 to find out the details.

The second field trip will be discussed during our July 15 meeting.

Remember to always follow our Code of Ethics when we are collecting on private property. During the July meeting, I will be requesting your help to start planning for our Annual Lapidary Day & Club Picnic in September. This event includes demonstrations, and a chance to get some "hands on" experience under experienced guidance. If you can help us in any way by donating your time, unused equipment for the auction, or plants, it will be appreciated. Thank you in advance for all your help and I wish you a relaxing, safe and rewarding month.

Rock On! - Mary

Photo by Tom Stienstra, Bob Wick, Bureau Of Land Management

CLUB MEETINGS & EVENTS

July 1 @ 7pm Board Meeting

Rabobank Meeting Room, Templeton

Field Trip - July 6

Field trip to a private ranch
Northeast of San Miguel.

Meet at 7:30am in front of the Rios- Caledonia Adobe in San Miguel

to form carpools, use the restroom and sign a property owner liability waiver. We plan to depart by 7:45 and arrive at field trip location between 8:00 and 8:15.

What to Wear/Bring: Water, hat, sunscreen, long pants and sleeves recommended, and sturdy shoes. Do not rely on having cell service.

PLEASE WATCH FOR SNAKES. A HIGH FIRE RISK DAY MAY LIMIT OUR ACTIVITIES ON THE SITE.

For fossils - there are sand dollars, sea snails, pectens, mollusks, including a murex-like spiked seashell. Bring a screwdriver to help dig them out, something to wrap them in to keep them protected, and a bag or bucket to carry them.

For fluorescents & Native American Artifacts - across from the fossil location is a dry creek bed with chert, some fluorescents, and possible Native American artifacts. A group may travel to a second location rich with fluorescents - we are still working out logistics with the property owner.

George Work has offered those interested a peek at his fireplace which was built by the same legendary local stonemason who did the work at Madonna Inn (Mr. Castillo).

If you have questions about the field trip, please email, call, or text Kim Noyes (805-610-0603 kimnoyes@gmail.com) or Tina Clark (805-305-0246 tinajclark@outlook.com).

July 15 @ 7pm General Meeting

Templeton Community Center

A DVD presentation on Plume Agates in the Western U.S. will be shown at this meeting. Members are encouraged to bring their plume agate specimens for a Show & Tell to enhance the program.

Field Trip - July 20

Field trip to a private ranch off HWY 46W.
Meet at 7:00 at the old Osh Parking lot in Templeton for car pools. We plan to depart by

7:30am and conclude at noon. There are new Rules & Regulations for Santa Lucia Rockhounds at this location: We are the only Rock Club to be allowed two field trips a year, as long as we abide by the following rules:

1. No large boulders can be removed from the property.
2. You can take rocks what you can fill in two, 5 gallon buckets.
3. Wagons and dollies permitted.
4. No one to drive thru the gate at top of the hill.
5. Park at area marked
6. Arrange for Port-a-Potty.
7. SLR field trip Sign up sheet with liability information used.

Aug. 5 @ 7pm Board Meeting

Rabobank Meeting Room, Templeton

Aug. 19 @ 7pm General Meeting

Templeton Community Center
Kathy Clarke and Karen Hilchey
Presentation on their Trona experience.

MEMBERSHIP RENEWAL DUE

SAVE THE DATE - Sept. 14, 9am-2pm Annual Club BBQ Picnic and Auction

Galen Moyer Residence

A fun-filled BBQ Picnic and Auction. The Club provides the BBQ meat - bring your favorite potluck dish to share. There will be demonstrations of various lapidary equipment, gold panning demonstration, and a chance to get some hands-on experience. We need Donations for the Auction, such as Geodes, Thunder Eggs, Slabs, Cabs, Pearls, Fossils. Things Rockhounds use, like tools, and jewelry are always a big Hit. Receipt for tax purposes available.

AD SPACE AVAILABLE

FREE for members

\$10 / month for non-members

Includes one month space on Club newsletter and website.

WHAT A DEAL!

Send an email with your request to srockhounds@gmail.com

OTHER EVENTS & INFO

The San Luis Obispo Gem and Mineral Club is offering our club members a discounted rate of \$75 for an 8' foot table space at their upcoming **Rock and Gem Show on 9/7 & 9/8 in Arroyo Grande** if they wish to participate as a dealer. The application form was emailed to all members. If you have questions about the show, contact Mary M. Rafferty at gems@vistagrande.com or visit their website: gems.vistagrande.com.

Our club will also have a table there to promote our club and sell merchandise. If you are interested in staffing a shift at this show or want to demo, please email Tina Clark at tinajclark@outlook.com. The SLO Club has gone above and beyond in supporting our show with demonstrators, so your participation is greatly appreciated.

Barbara Bilyeu will be putting together an Exhibit Case for our Club.

August 2-4

Orcutt Mineral Society

Nipomo High School
525 N. Thompson Ave
Fri-Sat 10-5, Sun 10-4
www.omsinc.org

August 3-4

San Francisco Gem & Mineral Society

San Francisco County Fair Bldg
9th Ave and Lincoln Way, Golden State Park
Sat 10-6, Sun 10-5
www.sfgms.org

August 17-18

Tehachapi Valley Gem & Mineral Society

Tehachapi Senior Center
500 E. F Street
9-4 Daily (tentative)
www.tvgms.org

Thank you for your service!

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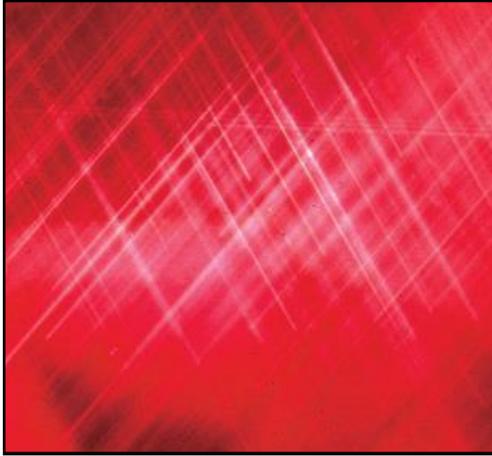
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RUBY QUALITY FACTORS

By the Gemological Institute of America Inc.



Intersecting needles of the mineral rutile create a common ruby inclusion called silk. When they are intact, they prove the ruby was not heat-treated at very high temperatures. It's still possible that lower-temperature heat treatment might have occurred.

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sidered pink sapphire, even if color strength or intensity is high.

Some gem dealers debate the borderline between ruby and pink sapphire. Historically, the word ruby referred to shades of red, which technically included pink. There are also cultural differences in the interpretation of ruby versus pink sapphire. In some gem-producing nations such as Sri Lanka, pink colors were always considered ruby, while in many consuming countries it is classified as pink sapphire.

The GIA Laboratory uses a controlled set of comparison stones called masterstones to determine if corundum is ruby or if it's pink, purple, or orange sapphire. The laboratory grades its masterstones on the principle that red must be the dominant hue before a stone can be called a ruby. In the gem trade, though, identification of the dominant hue is subject to personal perception.

Blood is another symbol of ruby's color. Descriptions have compared ruby to the "blood

from the right ventricle" or the first two drops of blood from a freshly killed pigeon. Historically, the term "pigeon's blood" described the red to slightly purplish or pinkish red color of rubies with a soft, glowing, red fluorescence.

Traditional descriptions like these are useful for evoking images and describing color among professionals. But they can be subject to misinterpretation when used to describe a ruby's actual color.

Trade terms can represent certain colors and qualities that are associated with a stone's source. The qualities might be typical of that source or they might represent the finest stones from that source.

But a single source never consistently yields gems that are all the same color and quality. In fact, the descriptive term might represent only a small percentage of stones from that source. The appearance of stones from a particular source often varies over time, and the original quality associated with that source might no longer match the material produced.

New sources can produce material very similar to rubies from classical sources or with a slightly different appearance, but just as beautiful.

Clarity

People in the trade expect rubies to have at least some inclusions because inclusion-free rubies are practically nonexistent. Ruby value depends on how visible the inclusions are. Obvious inclusions or inclusions that reduce transparency or brightness lower a ruby's value dramatically.

If large and prominent inclusions are located under the table facet, they greatly diminish the transparency, brilliance, and value of the stone.

Inclusions can also limit a ruby's durability. Significant surface-reaching fractures can pose durability threats.

Typical ruby clarity characteristics include thin mineral inclusions called needles. When the mineral is rutile and needles are present in intersecting groups, it is called silk. Needles might be short or long and slender, and they might appear to be woven tightly together.

Ruby can also contain needles composed of other minerals, small crystals, zones of color variation, or inclusions that resemble fingerprints.

Some inclusions can actually contribute positively to a gem's appearance. The presence of rutile silk causes light to scatter across facets that might otherwise be too dark. This adds softness to the color and spreads the color more evenly across the ruby's crown.

Needles that intersect can also cause the star effect, called asterism, when the stone is cut with a curved upper surface.

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Long mineral inclusions that intersect can create the star effect when stones are cut as cabochons. - Courtesy of Hussain Rezayee, Rare Gems & Minerals



Rubies are commonly cut into oval and cushion shapes. - Courtesy Edward Boehm

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Cut

Several factors affect the cut and proportion of rubies on the market. A ruby's crystal shape dictates its suitability for certain cuts. The most common shape is a flat tabular hexagonal shape, but ruby crystals from some sources can be elongated.

To accommodate these crystal shapes, the most common shapes of fashioned rubies are ovals and cushions, with brilliant-cut crowns of kite-shaped and triangular facets, and step-cut pavilions with concentric rows of rectangular or square facets.

Round, triangular, emerald-cut, pear, and marquise rubies are also available. But these shapes are rare in larger sizes and higher qualities.

Ruby rough is very expensive, so cutters try to conserve as much weight as possible. They might fashion flattened ruby rough into shallow stones, even though light escapes through flattened pavilions, causing an unattractive see-through area in the stone called a window.

Pleochroism—the appearance of different colors in different crystal directions—is an-

other factor that influences cut. In ruby it typically appears as red to purplish red in one crystal direction and orangy red in the other. Cutters can minimize the orangy red color by orienting the table facet perpendicular to the long crystal direction. Even so, it's not always possible to orient a ruby for ideal color return because the potential loss of weight would be too great.

Size and Weight

Fine-quality rubies over one carat are very rare, but commercial-quality rubies are commonly available in a wide range of sizes. The price per carat goes up significantly for ruby as it increases in size.

For example: A commercial-quality 5-carat ruby might sell for about twice as much per carat (10 times total stone value) as a commercial-quality 1-carat ruby, while a fine-quality 5-carat ruby sells for over five times more per carat (25 times total stone value) than a fine-quality 1-carat ruby.

These examples are not meant for exact pricing guidelines, but to illustrate how much the per-carat price can go up as the size and the quality rise.



These rubies were all mined in Myanmar. The faceted stone weighs 11.55 carats and the rough stones weigh between 16.65 carats and 278.50 carats.

MOLDAVITE

A green gem formed by an ancient asteroid impact



A very high quality 86.5-carat moldavite specimen from the Czech Republic.

By Hobart M. King, Ph.D.,
GIA Graduate Gemologist

What is Moldavite?

Moldavite (also called Bouteille Stone or vltavin) is a natural glass that is thought to have formed in the heat of an asteroid impact. This event occurred about 15 million years ago, and a splatter of hot glass formed a strewn field across central Europe.

Moldavite is usually yellowish green, green, or greenish brown in color. It has been cut into faceted and cabochon gemstones since the mid-1800s. These are used in rings, earrings, necklaces, pins and other types of jewelry.

Nice specimens of rough moldavite are popular with meteorite and mineral collectors. The extraterrestrial origin of moldavite gives it a special appeal to many people interested in new age, astrological, and spiritual practices.

Moldavite is referred to by a number of incorrect names. These include: glass meteorite, bohemian chrysolite, false chrysolite, glass chrysolite.

Read full story: <https://geology.com/gemstones/moldavite/>

JUNE 3, 2019

BOARD MEETING MINUTES

The meeting opened at 7:00 PM. Present were: Tina Clark, Lisa King, Joh McCabe, Barbara and Gene Bilyeu, Kathy Clarke, Kim Noyes, Deb Mecham, and Mary Beatty.

The May meeting minutes were discussed and approved. Mary Beatty was asked to take minutes.

Kathy Clarke suggested the by-laws be posted on the computer for new members along with other information.

Treasurer. The Treasurer provided a report on the Club budget.

Membership. New member applications were reviewed and approved by the board. They are: James Colflesh, Jacave Hughes, Nathan Doster, Lars Earl, Robert E. Lee Jr., Patricia Anderson, and juniors Athelna Sterios and Lea McTenny.

Juniors. John McCabe met with three scholarship winners. He attended the Atascadero High School awards assembly to present the \$1,000 award and wrote letters to the two winners from Templeton High school. All three plan to attend the next meeting and be introduced to the club. He would like to present them early in the meeting. He gave them a card with information about the club along with his phone number to answer any questions they may have.

John McCabe shared his plan for the junior rock-hounds. He plans on giving out patches for ancient tools and arts at the next general meeting. This last meeting he passed out the three ring binders, collection boxes, and rubber lining for the boxes. He plans to distribute sample rocks at the next meeting to juniors who properly set up and label their boxes. He mentioned that he needs some rock samples for the junior meetings.

Tina Clarke then asked for reports from other officers.

Rock & Gem Show. Kim Noyes shared about the recent successful rock show and set the date for the next show April 18 and 19, 2020. He mentioned that he contacted Richard Wade about going in a different direction and using him for a club night presentation instead of the annual show.

Kim Noyes also discussed the results of the survey questions on publicity. The road signs off the highway were by far the best advertisement.

Lisa King reported that she wore her Moh's Hardness Scale T-shirt to the recent rock and mineral show in Cayucos. She received positive comments from a number of people who loved her shirt.

Program. Gene Bilyeu shared the program report. Wayne Mills will share about local rocks and fossils this month and the July meeting will be a DVD to be announced.

Library. Barbara Bilyeu presented the library report. She introduced a new book, Jasper and Agates by Hans Gamma. She passed around the beautifully illustrated book for us to view. She ordered two copies for the library at a cost of \$41.

Field trip. Kim Noyes shared about the next fieldtrip at a local ranch. He passed out rocks and fossils gathered from a recent walk on that ranch. He and Tina are figuring out the final logistics for this trip but are looking at Saturday, July 6.

Tina Clark reviewed information on the San Luis Gem and Mineral Club show Sept. 7-8, 2019 at the South County Regional Center in Arroyo Grande. Our Club members were offered a booth at a discount rate. Our Club was also invited to have a table to pass out information and demonstrate at no cost. We were also asked if we wanted to have a display case. An e-mail will be sent out to see if anyone is interested in participating. Barbara offered to set up a display on behalf of our club and a personal display. Kim volunteered to help with their show. Anyone can volunteer to help.

Deb Mecham expressed an interest in Camp Paradise and would like someone to go with her. The camp offers classes for adults in rock artistry. It is in Clipper Mills, California.

Kim distributed cards advertising the 52nd Orcutt Mineral Show on Aug. 2-4th at Nipomo High School.

The meeting was adjourned at 8:30 PM.

JUNE 17, 2019

GENERAL MEETING MINUTES

Meeting called to order 7:03pm
Flag Salute - badge check

Acknowledge visitor Susan Applegard. 73 people in attendance

Membership: New members were introduced: James Colflesh, Jacave Hughes, Nathan Doster, Lars Earl, Robert E. Lee Jr. Patricia Anderson & Juniors Athena Stereos & Lea McTenny.

Education: John McCabe introduced the Scholarship Awards Winners who will receive \$1000.00 each. Mariah Hall, Atascadero High School, plans to study geology at Cuesta, Jacob Fridle, Templeton High plans to study Agriculture Sciences at CalPoly. Shane Simonin, Templeton High, will Study Environmental Sciences at Cuesta & go on to CalPoly.

Junior Rockhounds Lucas, Dominic, Charlie, Hanna, Sam Terry, Sam Allen, Evelyn, Delila, received badges for ancient tools & arts. They will be excused to meet in the adjoining room for more sharing and viewing of items that will be found on the Work Ranch field trip in July.

CFMS: Wayne Mills provided a report on Camp Paradise. Deb Mecham and Kathy Brown are going and can form a carpool if others are going, application form is available. He invited our club to participate in the Orcutt Mineral Club Show to be held Aug.2-4 at Nipomo High School.

Field Trip: Tina Clark and Kim Noyes reported on the next field trip on Saturday, July 6 @ 7:30am. Meeting in San Miguel @ Rios Caledonia, car pool suggested. Specimens to look for, fossils, fluorescents, a fireplace. They thanked Deb Mecham for her referral. This is for members only. Be respectful of area and fire danger. A reminder email and call will be sent out to members before the trip.

Future Shows: Tina Clark reported an invitation to participate in SLO mineral Club, Sept. 7 & 8 @ So. County Regional Center. Volunteer sign up sheet with dealer application to be available. Barbara Bilyeu plans to prepare a showcase for our club & another one by the Bilyeu's. They will be giving us a special rate to have a booth and would appreciate any help participating in their show.

Program: Wayne Mills shared pictures about local rocks and fossils he found in Willow Creek, Jade Cove,

Cayucos, Moonstone Beach, San Simeon Creek, See Canyon, Avila, Nipomo, and Santa Barbara County. It was very informative and he had a nice display on the Brag Table.

Drawing: Roberta Hall reported that she had many nice donations for the drawing. She also has asked for someone to replace her as she will be traveling and will not be able to attend meetings this year. Deb Mecham has volunteered to take on the position for the rest of the year.

Hostess: Julie Cannon and Brenda Obert thanked everyone for bringing snacks to enjoy.

Silent Auction: Pete Duckworth had many nice specimens to bid on.

No library as Barbara Bilyeu was not able to make meeting.

Brag Table: Lisa King showed her recent finds at the ByBy Root trip. Ron Rusconi found more spears. Mark Nelson shared geodes, etc. from Oregon Trip, and Kim Noyes shared more gems he has collected.

Adjourned 8:30pm for refreshments, Drawing and socialization.

Next Board meeting Monday, July 1, @ 7pm Rabobank Templeton

Next General meeting Monday, July 15, @ 7pm Templeton Community Center.



P.O. Box 1672

Paso Robles, CA 93447

PLUME AGATE

Agates with inclusions are some of the rarest and most beautiful agates in the world. These inclusions may be sagenitic (sagenite), plume, dendritic, or moss. Plume agate has fluffy inclusions which often appear to be soft and have depth. Sometimes plume agate inclusions resemble feathers, plants, or flowers. Colors may vary as in sagenite. This plume agate specimen was found in a Del Norte Thunderegg in Southern Colorado, and is owned by Pat McMahon.

Learn more at: <http://agateswithinclusions.com/article-html/>