

# The Sierra Pelonaagram



April 2011

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*... Member of the California Federation of Mineralogical Society Inc. ...*

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The Sierra Pelona Rock Club is a non-profit organization founded in 1959 with the objective to sponsor activities and promote interest and education in: mineralogy, lapidary, geology, paleontology and related subjects.



### President's Message

Well, Spring is in full swing with green hillsides, everything in bloom and pollen floating gracefully through the air in a quest to make many of us miserable. The desert is especially lovely this time of year with cool and sunny days and loads of float laying there, washed clean from the winter rains, just waiting to be discovered. Come out with us on our next trip, which will be announced soon. You can't lose!

I got the big tumbler working and it is quite busy at this time in my garage. It consists of 3 6# barrels and 2 12# barrels. This is a club tumbler, and I will take other members' treasurers to tumble for our programs, but I have dibs on it first—I have a bunch of stuff that better get tumbled or else there will be consequences here at home.

The June BBQ will be here before you know it. A special treat this year will be the awarding of Frank Humelbaugh a lifetime membership for his many (40) years of active duty in the club. Those of you who know him, come prepared to tell your "Frank Story". We can have a lot of fun with this.

Until next month, happy hunting.  
Bill Webber, President  
SPRC



Happy Birthday to all you Spring Babies!

Sarita Hyde  
Tom Kinney  
Shep Koss  
Greg Mazourek  
Suzie Rizzo  
Ron Strathmann



### **Officers:**

President – Bill Webber  
Vice-President – Ron Strathmann  
Secretary: Minutes-Nancy Hilliard  
Treasurer – Greg Mazourek  
Federation Director (CFMS/AFMS) – Shep Koss

### **Chairpersons:**

Pelonagram Editor – Heidi Webber  
Claim - Mike Serino  
Donation Rock Table - Al Brown  
Field Trips – Open  
Historian - Frank Humelbaugh  
Hospitality – Evelyn Velie  
Membership – Ron & Akiko Strathman  
Programs – Open  
Publicity – Open  
Storage - Mike Moreno  
Sunshine - Evelyn Velie  
Web site – Greg Mazourek

The Sierra Pelona Rock Club, is a member of the California and American Federation of Mineralogical Societies, Inc. (CFMS/AFMS). The general club meetings (Open to the public) are at 7:30 PM, on the 3rd Tuesday of each month at:

**The Clubhouse of the Greenbrier  
Mobile Estates EAST  
21301 Soledad Canyon Rd  
Canyon Country, CA 91351**

Contact the Club or the Sierra Pelonagram Editor at:

**Sierra Pelona Rock Club  
P.O. Box 221256  
Newhall, Ca. 91322**

Or E-mail: [hwebber@pacbell.net](mailto:hwebber@pacbell.net)

Visit the SPRC website <http://www.sierrapelona.com/>

**SPRC Business Meeting  
Greenhouse Café  
April 5, 2011**

The meeting was called to order at 6:45pm. In attendance were Bill and Heidi Webber, Greg Mazourek, Evelyn Velie, Mike Serino and Ron and Akiko Strathmann.

The minutes of the last meeting were approved with no changes. The Treasurer's report for May was not available, and will be with the April report.

The Board voted to award Frank Humelbaugh a lifetime membership based on his 40+ years as an active and contributing member of the club, to be given at the June BBQ.

Heidi is to buy new business cards from Feathers, our previous vendor for the cards. They will be the same, but with a matte finish so that they can be more easily written on.

Greg will do the April program at the general meeting. It will be on Guatemalan Jade.

Greg said we didn't make any money at the Antelope Valley Gem Show. He also said we need to tweak the by-laws and will be forming a committee at the general meeting. Greg also said he would take over the web site.

Greg, Bill and Heidi will be going through the storage shed with an eye on condensing product and getting rid of old stuff that has no longer any purpose or need. The shed is very small and right now very crowded to the point that many members are storing things at their homes. We are also looking into obtaining heavy commercial-grade metal shelves that can replace the rickety wooden one we currently have.

The meeting adjourned at 7:45pm.

Respectfully Submitted  
Heidi S. Webber

**Apatite**

Apatite is a naturally occurring gemstone. It is basically known for its asparagus green color but it is found in wide range of colors, from colorless to pink, yellow, blue to violet. The best apatite is neon greenish blue with a clean clarity. The cost of the stone increases with the intensity of the color.

Apatite's property is fairly soft and is rarely used for rings, but is very popular as earrings and pendants because of its unusual intense green color. The hardness of the stone is 5 to 6.5 on Moh's scale. It has a vitreous luster and is sensitive to acids.

The name, 'apatite' has been taken from a Greek word 'apate,' which mean to deceive. It is so named because one can be easily get confused with variety of other stones like tourmaline, peridot and beryl.

Apatite is found in Burma, Brazil, India, Madagascar, Kenya, Mexico, Norway, Sri Lanka, South Africa, and the United States.

Apatite is found in all igneous, sedimentary and metamorphic rocks. It can also be cut as gems but the softness of apatite prevents its acceptance as a gemstone.



**Technical Specification** 🎯

| Name    | Moh's | Specific Gravity | Structure | Cleavage | Refractive Index | Double           | Disp. | Pleochro         | Fluorescence |
|---------|-------|------------------|-----------|----------|------------------|------------------|-------|------------------|--------------|
| Apatite | 5     | 3.17-3.23        |           | Poor     | 1.632-1.646      | -0.002<br>-0.004 | 0.016 | Weak to v Strong | Variable     |



**Aquamarine**

Being a variety of beryl it belongs to the same family as emerald. Its colour varies from an almost white pale blue to a slightly darker sky blue, this latter being the most prized of all. There are also some greenish blue specimens which potential buyers would be wise to avoid. When investing in aquamarine, choose a stone that is pure, brilliant and as dark as possible. Be careful not to confuse it with blue topaz, a far less valuable mineral.

Generally, aquamarine is faceted, except for the translucent or milky specimens which are better cut en cabochon. This cut is popular today with jewelers for the creation of reasonably-priced parures.

Aquamarine comes from Brazil, Madagascar, Russia and the USA. Specimens from China and

Colombia tend to be of a yellowish tint.

Source: Mineralzone.com

**Technical Specification** 🎯

| Name       | Moh's | Specific Gravity | Structure | Cleavage | Refractive Index | Double | Disp. | Pleochro | Fluorescence |
|------------|-------|------------------|-----------|----------|------------------|--------|-------|----------|--------------|
| Aquamarine | 7.5+  | 2.67-2.71        | Hexagonal | None     | 1.577-1.583      | -0.006 | 0.014 | Definite | None         |

## Sedimentary Rocks

Sedimentary rocks are formed by the accumulation of sediments. There are three basic types of sedimentary rocks: 1) **clastic sedimentary rocks** such as breccia, conglomerate, sandstone and shale, that are formed from mechanical weathering debris; 2) **chemical sedimentary rocks** such as rock salt and some limestones, that form when dissolved materials precipitate from solution; and, 3) **organic sedimentary rocks** such as coal and some limestones which form from the accumulation of plant or animal debris. This month we will talk about breccias.

### What is Breccia?

Breccia is a term most often used for clastic sedimentary rocks that are composed of large angular fragments (over two millimeters in diameter). The spaces between the large angular fragments can be filled with a matrix of smaller particles or a mineral cement that binds the rock together.

### How Does Breccia Form?

Breccia forms where broken, angular fragments of rock or mineral debris accumulate. One possible location for breccia formation is at the base of an outcrop where mechanical weathering debris accumulates. Another would be in stream deposits near the outcrop such as an alluvial fan. Some breccias form as debris flow deposits. The angular particle shape reveals that they have not been transported very far (transport wears the sharp points and edges of angular particles into rounded shapes). After deposition the fragments are bound together by a mineral cement or by a matrix of smaller particles that fills the spaces between the fragments.

### How Does Breccia Differ From Conglomerate?

Breccia and conglomerate are very similar rocks. They are both clastic sedimentary rocks composed of particles larger than two millimeters in diameter. The difference is in the shape of the large particles. In breccia the large particles are angular in shape but in conglomerate the particles are rounded. This reveals a difference in how far the particles were transported. Near the outcrop where the fragments were produced by mechanical weathering the shape is angular. However, during transport by water away from the outcrop the sharp points and edges of those angular fragments are rounded. The rounded particles would form a conglomerate.

### What is Breccias Composition?

Breccia has many compositions. Its composition is mainly determined by the rock and mineral material that the angular fragments were produced from. The climate of the source area can also influence composition. Most breccias are a mix of rock fragments and mineral grains. The type of rock that the fragments were produced from is often used as an adjective when referring to the rock. Some examples: sandstone breccia, limestone breccia, granite breccia, chert breccia, basalt breccia and others. Often a breccia will contain many types of angular rock fragments. These are known as polymict breccias or polymictic breccias.

### What Color is Breccia?

Breccia can be any color. The color of the matrix or cement along with the color of the angular rock fragments determine its color. Breccia can be a very colorful rock as shown in the photo at the top-right of this page

### Is the Word "Breccia" Used in Other Ways?

Geologists have been very generous in their use of the word "breccia." It is common to hear the term used when referring to a rock or rock debris made up of angular fragments. Although it is mainly used for rocks of sedimentary origin it can be used for other types of rocks. A few more uses of the word are given below.

**Collapse Breccia:** Broken rock that originates from a cavern or magma chamber collapse.

**Fault Breccia:** Broken rock found in the contact area between two fault blocks and produced by movement of the fault.

**Flow Breccia:** A lava texture produced when the crust of a lava flow is broken and jumbled during movement.

**Igneous Breccia:** A term used for a rock composed angular fragments of igneous rocks. "Flow breccia" and "pyroclastic breccia" could be called "igneous breccia".

**Impact Breccia:** A deposit of angular rock debris produced by the impact of an asteroid or other cosmic body. See an article about "impactites".

**Pyroclastic Breccia:** A term used for a deposit of igneous rock debris that was ejected by a volcanic blast or pyroclastic flow.

When you hear the word "breccia" used in reference to a rock or rock material it is fairly safe to assume that it means angular-shaped pieces.

### What are the Uses of Breccia?

The rock, breccia, has very few uses. However, the word "breccia" is used as a trade name for a group of dimension stone products with a broken, angular pattern. Names such as "Breccia Oniciata", "Breccia Pernice" and "Breccia Damascata" are cut and polished limestones and marbles that reveal a broken, angular pattern. These breccias are used as architectural stones for interior building veneers, tiles, window sills and other decorative applications. These are proprietary names applied to the rock from specific quarries.

Source: Geology.com



**Chert Breccia:** The angular clasts in this breccia are chert fragments. The matrix is an iron-stained mix of clay through sand-size particles. The specimen is about two inches (five centimeters) across.



**Alluvial Fan:** An alluvial fan in Death Valley National Park. Material on the fan was weathered from the mountains in the background and transported a very short distance. United States Geological Survey image.



**Debris Flow Breccia:** Outcrop of a breccia thought to have formed from debris flow deposits in Death Valley National Park. The largest clasts are about three feet (one meter) across and are thought to be from the Noonday Dolomite. United States Geological Survey image



**Impact Breccia:** A 457.7-gram breccia specimen from the Poptai impact crater in northern Siberia. Note the variety of colors, sizes, shapes and textures within a single mass—the result of a major meteorite impact which threw millions of tons of rock into the air. As fragments fell back to earth, rocks from different strata were mixed together. Photograph by Geoffrey Notkin © Aerolite Meteorites



**Limestone Breccia:** A breccia that contains clasts of multiple types of limestone. Specimen is about four inches (ten centimeters) across.



**Talus Slopes:** Scene of a mountain environment where talus, the angular mechanical weathering debris that might form breccia, is produced in abundance. Panorama from Kearsarge Pass looking east over Big Pothole Lake into the Owens Valley. Image copyright by iStockPhoto and Tom Grundy.

## CFMS Shows

### April 15-17 - SAN JOSE, CA

Santa Clara Valley Gem & Mineral Society

334 Tully Road

Hours: Fri 9-5; Sat & Sun 10-5

Frank Mullaney (408) 265-1422

Email: [info@scvgms.org](mailto:info@scvgms.org)

Website: [www.scvgms.org](http://www.scvgms.org)

### April 16-17 - NEWBURY PARK, CA

Conejo Gem & Mineral Club

Borchard Park Community Center  
190 Reino Road

Hours: 10-5 daily

Robert Sankovich (805) 494-7734

Email: [rmsorca@adelphia.net](mailto:rmsorca@adelphia.net)

Website: <http://www.cgamc.org>

### April 23-24 - SANTA CRUZ, CA

Santa Cruz Mineral & Gem Society

Santa Cruz Civic Auditorium

Corner of Church and Center St

Hours: 10-5 daily

Dean Welder (408) 353-2675

Email: [wdeanwelder@yahoo.com](mailto:wdeanwelder@yahoo.com)

Website: [www.scmgs.org](http://www.scmgs.org)

### April 30 - May 1 - ANAHEIM, CA

Searchers Gem & Mineral Society

Brookhurst Community Center

2271 W. Crescent Avenue

Hours: Sat. 10-5; Sun 10-4:30

Beth Pelfrey (714) 774-2754

Email: [martin.swiderski@jacobs.com](mailto:martin.swiderski@jacobs.com)

Website: [www.searchersrocks.org](http://www.searchersrocks.org)

MAY

### May 6-8 - BISHOP, CA

Lone Pine Gem & Mineral Society

Tri-County Fairgrounds (Robinson Bldg.)

Corner of Sierra Street & Fair Drive

Hours: Fri. 6pm-10; Sat. 9:30-4; Sun. 10-3

Francee Graham (760) 876-4319

Email: [franceem@quet.com](mailto:franceem@quet.com)

### May 7-8 - RENO, NV

Reno Gem and Mineral Society

Reno Livestock Events Center Exhibit

Hall

1350 N. Wells Ave.

Hours: Sat. 10-5 Sun. 10-4

Ann Johnson (775) 544-4937

Email: [ann.johnson.e@gmail.com](mailto:ann.johnson.e@gmail.com)

Website: [www.renorockhounds.com](http://www.renorockhounds.com)

### May 13-15 - ANDERSON, CA

“Northern California Treasures”

Hosted by:

Superior California Gem & Mineral Society

Shasta Gem & Mineral Society

Paradise Gem & Mineral Club

Shasta District Fairgrounds - Anderson, CA

Briggs Street (8 miles south of Redding)  
Exit 677 off Interstate 5 to Highway 273;

2.5 miles to Fairgrounds

Hours: Fri. & Sat. 9-5; Sun. 10-4

Show Chairman: Steve Puderbough -

[steve@applyaline.com](mailto:steve@applyaline.com)

Website: [www.superiorcal.com](http://www.superiorcal.com)

**See pre-registration and other show forms**

### May 21-22 - JACKSON, CA

Fossils For Fun Society

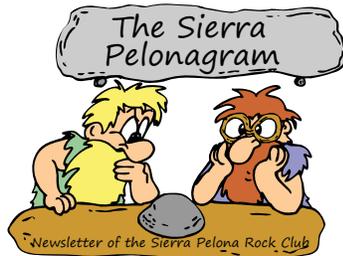
Kennedy Mine

12954 Kennedy Mine Road

Hours: 9-5 daily

Debbie Bunn (916) 929-6665

Email: [fossilsforfun@hotmail.com](mailto:fossilsforfun@hotmail.com)



**Sierra Pelona Rock Club**

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**Newhall, Ca. 91322**