

# The MOROKS NEWSLETTER

JANUARY 2017

The Monrovia Rockhounds founded 1957

Volume 60, Issue 1

## Upcoming Meetings

December Board Meeting, January 3rd  
2 pm at 224 Oak Ave.  
Monrovia, Ca. 91016

General Meeting, January 19<sup>th</sup> 2017  
@ 7:00 pm

United Methodist Church of Monrovia  
at 140 E. Palm Ave. Monrovia CA 91016.  
We meet in the basement, use the west  
entrance in the alleyway.  
Please come and join us!

## BOARD OF DIRECTORS

**PRESIDENT:** Jo Anna Ritchey

**VICE  
PRESIDENT:** Thomas Witt

**TREASURER:** Jim Lloyd

**SECRETARY:** Coleen Chestnut

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## A WORD FROM THE PREZ

Jo Anna Ritchey, President

November and December are a busy time of year. I went to the Fall Business Meeting (see report in bulletin) and had a good time catching up. Part of the entertainment was a talk by Jim Brace-Thompson on Rockhounding in Scotland. He had to go to Scotland last year because his daughter got married at the Courthouse and this year decided she wanted a church wedding. He went rockhounding with the Edinburgh Club and to went to see mineral collections in a couple of museums. Very fascinating. Shows that you can rockhound in other countries.

Nov. 19<sup>th</sup>, I went to Jewel Tunnel this morning. What a wonderful place. They have re-arranged it a little, so everything was really displayed well. JTI was very busy during the Open House. We did some shopping, of course, as well as catching up with friends. I am so glad they have kept up the tradition.

## Attention All Members

### 2017 Membership Dues

Start thinking about paying your 2017 Dues! For existing members, Renewal Fees Individual Membership \$20.00 Each additional person in same household \$10.00 each. If paying in person you have the next meetings in January, February and March to get your dues paid. Paying by check,  
mail to

**MOROK'S**  
**P.O. Box 553 Monrovia, Ca. 91017**

Thank You

## The BLM and Rockhounding Rules

Rocks, minerals and semiprecious gemstones may be collected on public lands managed by the BLM without charge or permit as long as:

1. The specimens are for personal use and are not collected for commercial purposes or bartered to commercial dealers.
2. You may collect reasonable amounts of specimens. In Arizona, BLM sets the "reasonable" limits for personal use as up to 25 pounds per day, plus one piece, with a total limit of 250 pounds per year. These limits are for mineral specimens, common invertebrate fossils, semiprecious gemstones, other rock, and petrified wood.
3. A group of people does not pool their yearly allotment to collect a piece larger than 250 pounds of either rockhounding specimens or petrified wood.
4. Collection does not occur in developed recreation sites or areas, unless designated as a rockhounding area by BLM.
5. Collection is not prohibited or restricted and posted.
6. Collection, excavation or removal are not aided with motorized or mechanical devices, including heavy equipment or explosives. Metal detectors are acceptable, with the exception of the San Pedro National Conservation Area.
7. No undue or unnecessary degradation of the public lands occurs during the removal of rock, minerals, or gemstones.
8. For pieces of petrified wood heavier than 250 pounds or situation not covered here, please contact your [local BLM office](#).
9. If you wish to obtain more than 250 lbs. of rock in a year, please visit the local BLM office to arrange to purchase it.

However with the designation of the new National Monuments in California and other States, rock collecting Rules will be changing in these areas.

### Collecting Guidelines

1. Know whose property you are on.
2. Get permission when collecting on private property and mining claims.
3. Don't use blasting materials or mechanized earth moving equipment.
4. Limit excavation depth to four feet and fill in holes before you leave.
5. Collect only what you can reasonably use until your next trip.
6. Leave all gates as you found them.
7. Find out if any fire restrictions are in effect.
8. Make sure your campfire is completely out before leaving area.
9. No vehicles or mechanized equipment are allowed in wilderness areas

## The December 6, 2016 Board Meeting of the Monrovia Rock Club

The meeting was called to order at 2:15PM at the Ritchey's home in Monrovia.

The following board members were present:

Jo Anna Ritchey, President

Thomas Witt, Vice President

Jim Lloyd, Treasurer

Colleen Chestnut, Secretary

Victor Castellano, Representative

Vice President, Thomas Witt announced our upcoming programs:

**December 15, 2016**--Club Christmas Dinner/Party and gift exchange at Coco's in Arcadia at 6:30PM

**January 19, 2017**--Alfredo Petrov's program on mineral collecting on a live volcano

**February 16, 2017**--Jim Brace-Thompson will talk about his visit to Scotland and Scottish Agates

**March 16, 2017**--Program pending

April 20, 2017--The silent auction

**Treasurer**, Jim Lloyd said we have 26 paid members.

Club dues are due in January

and delinquent on April 1, 2017. He gave the balance in the checking account.

Field trip--There will be a trip to Quartzite in January.

**Federation Director**, Jo Anna, stated there will be a report in the bulletin.

**Bulletin Editor**, Thomas Witt, stated that there will be an article on Topaz Mountain in the January Bulletin.

### New Business

**March Annual Show at the Arboretum**--nothing new. We need to start working on display cases.

A suggestion was made that an e-mail be sent out to the members the day or so before the General Meeting reminding of the meeting and including the program information.

Nominating Committee--Colleen Chestnut and Victor Castellano and we need 1 more person. Jo Anna Ritchey will accept the nomination for Vice President and Jim Lloyd agreed to take another term as our Treasurer.

The meeting was adjourned at 3:00PM.

Colleen Chestnut

Secretary

## The December 15, 2016 General Meeting of the Monrovia Rock Club / Christmas Dinner

The December 15, 2016 General Meeting and Christmas Party/Dinner was held at 6:30PM at Coco's on Colorado Blvd in Arcadia.

All 4 board members were present, 8 members and 1 guest.

After ordering our dinner, Thomas Witt had us play a couple of fun games.

After dinner, Jo Anna opened a discussion on how to attract more members to our club.

1. Judi Romine suggested a case at Westfield Mall with someone present to give information and answer questions. Judi is willing to do it but needs help transporting the case to the mall and back.

2. Victor Castellano and Ray Ritchey thought we should advertise our club in both local and the Pasadena newspapers.

We will look into both suggestions.

The next topic was board members for next year.

Jo Anna said that she was interested in being Vice President. Jim Lloyd said that he was willing to continue as Treasurer. Victor Castellano volunteered to run for President. Nominations will be in January.

The club provided a cake with Christmas decorations for dessert. We played a alphabet

game related to rocks. Then we had our gift exchange.

This fun evening of fellowship, games, good food and the gift exchange concluded at 8:40PM.

Colleen Chestnut

## Rock of the Month

### Epidote

Epidote is one of the most outstanding display minerals. The finest and most desirable form of this mineral is in delicate elongated crystals that are extremely lustrous and often interconnected. This form is highly treasured by collectors and creates one of the finest mineral showpieces. The color of Epidote is almost invariably green, in all different shades and tones, with a pistachio color habit being very typical.

Epidote usually ranges between yellowish green to pistachio green in color. Less often it is brownish green to black. In massive form it is usually translucent with a vitreous luster. Well-formed crystals from marble and pegmatite are often transparent.



Epidote is a rock-forming mineral. Many regionally-metamorphosed rocks contain small amounts of epidote. Two rock types that contain significant amounts of epidote are epidosite and [unakite](#). Locations where these rocks can be found are rare, but at those locations significant amounts of these rocks can be present.



Unakite is a rock that forms from the metamorphism of granite. Less-resistant minerals in the granite are altered to epidote or replaced by epidote, with the [orthoclase](#) and quartz remaining. It is an interesting pink and green colored rock that was first discovered in the Unakas Mountains of North Carolina, from which its name was derived

Happy  
New  
Year

## TOPAZ MOUNTAIN, UTAH

Topaz Mountain is part of the Thomas Range which is a notable paradise for those looking for great specimens. I will say beforehand that I would strongly recommend a high clearance vehicle for the last 1/2 mile to mile of the drive as you will be driving through a series of washes that can get pretty sketchy no matter the season you choose to go. Once you arrive at the destination, there are makeshift campsites all around the area and you will see lots of evidence of human activity all around. There are also a couple of active mining claims in the area. One of which you can pay to dig, they even offer a blasting a tour.

Many minerals can be found here including topaz (obviously), garnet, amethyst, hematite, opal, and bixbyite. Red beryl is highly sought after as it is worth more than diamond per carat and is far more rare. I have been here more than a dozen times and only seen a few VERY tiny pieces of red beryl. Topaz is my favorite to go after from this area because it is both abundant and super fun to collect.

Most of the topaz from the area is either sherry or pink colored, but becomes clear after exposure to sunlight. If you are driving or walking around the area at the right times you should see the washes gleaming with numerous little pieces of clear topaz.

To get to the good stuff you are going to need a heavy duty sledge hammer and a selection of chisels. When you get to the topaz amphitheater, as they call it, you should see white rhyolite rock around on all sides (I placed the marker on the map right in the middle of the amphitheater). In this rhyolite you should see vugs/pockets (ranging from a few inches to a few feet) where you will find the topaz (ranging from a few millimeters to a few inches).

Use the sledge and chisels to uncover more and more vugs, but be extra careful once you hit a pocket as the topaz can be very fragile until it is extracted. You should hear your hammer make a different sound once you cracked into a pocket. At that point, many people will use a chopstick or a small screwdriver or something to poke around the cavity to see what they have uncovered. Don't be alarmed if the vug is empty. This is very common. It takes time, but you will be rewarded immensely.

You may even come across a double specimen where you will find a topaz and red beryl or topaz and bixbyite combo. These are rare and I would definitely hold on to them. I have even found various fossils including trilobites in this area so I would be surprised if you went home empty handed.

It is wise to bring a headlamp as well to be able to see into the pockets as it might take some extra care to not fracture or break the topaz. I sometimes even like to go at night since any gems should reflect off the light from your headlamp and you can get a better idea of what you are up against. Many people have had a lot of success by simply going around and checking pockets that have already been exposed and seeing if anything has been uncovered and not claimed.

Bring plenty of water, food and clothing etc. You will be in the middle of nowhere and any services are a long ways away. Weather can change quickly.



### Directions to Topaz Mountain: "Good Luck"

From Nephi, Utah, travel 33 miles southwest on State Highway 132 to Lyndyl. Turn south on U.S. Highway 6 and drive for approximately 5 miles. Turn west on the Brush Wellman road and travel 38 miles until you reach the Topaz Mountain sign. Turn north on the dirt road and drive about 2 miles, then turn west toward Topaz Mountain.

**Update:** A large portion of Topaz Mountain (the amphitheater) has been placed under claim and is no longer open to FREE public collecting. However there are still public collecting areas open.

Topaz Valley was set aside by the B.L.M. Department of the Interior as a rockhound area. Despite the rumors of it being completely picked over, with hard work and a lot of patience you are often rewarded with some fine clear or sherry colored topaz.



## Upcoming Events

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**Dec. 15<sup>th</sup> Moroks Christmas Party**  
**Date: Thursday December 15, 2016 at**  
**6:30PM**

**Location: Coco's Bakery Restaurant**  
**1150 W. Colorado Blvd.**  
**Arcadia, CA 91007**

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January 2017 Quartzite Begins  
Possible field trip to pick up material.

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On January 19, 2017 we have invited Alfredo Petrov to come and give a talk. I have heard him before and he is excellent. He suggested a talk of Collecting Minerals on the Edge of a Live Volcano (Japan), but he has a list of other talks we can choose from. So we shall see exactly what is chosen. No matter what, his talks are not to be missed.

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On February 16, 2017 we have invited Jim Brace-Thompson to give a talk on Rockhounding in Scotland. He is a very entertaining speaker that I am sure you will enjoy. You must come to see pictures of agates found in Scotland.

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March 4<sup>th</sup> & 5<sup>th</sup>  
Monrovia Rockhounds  
Gem and Mineral Show  
@ the  
LA County Arboretum

## VP's Message

Hello My Fellow Rockhounds,  
With 2016 coming to a close, We are entering a new year, welcome 2017. Lots of new things are in store for us not just as a club, but for America in general. A new President will be sworn in on January 20<sup>th</sup>. May God Help Us!

The Board is currently seeking a nominating committee for the new Board selection.

December's General Meeting was held in conjunction with the annual Christmas Dinner and gift exchange, held at Coco's Restaurant in Arcadia. For those of you who joined us I hope you had a good time and Santa Clause was very good to you. I had a wonderful time and a great meal.

We played a few games, one of which was the M&M game. Then a few scrambled word games and the Alphabet Rock Game, all while our meals were being prepared. The highlight of the evening of course was the Secret Santa Gift Exchange. Everyone scored on some good gifts with only one steel taking place.

### On a Personal Note:

I have been on the move, I'm relocating to Apple Valley in the High Desert. For the time being, I will try to do my best to schedule appointments and meetings to continue to serve the club for a short time.

I'm waiting on the availability of a chair at a dialysis clinic that I need to complete my move. No clinic, means no permanent move right now. I am so looking forward to turning the page and starting something new, living out my "Golden Years" doing some four wheeling, rock collecting, prospecting and metal detecting and a few other activities that have sparked my interest.

I would like to thank all of you for allowing me to serve the club and for giving me a start on my education on Rocks, Gems and Minerals.  
Thank you Thomas Witt, VP Moroks



## January Birthdays

Ray Ritchey

1 / 3



### January Birthstone Garnet

**Garnet**, the birthstone of January, is mined in a rainbow of colors. From the fiery orange of Mandarin **Garnet** to the rich green of Tsavorite **Garnet** and to the most widely recognized color of Pyrope **Garnet**, it is considered a great gift to symbolize friendship and trust. For babies born in January, the garnet is the perfect gem to represent their birthstone. This beautiful stone, which is most commonly red but can be found in a range of other colors, symbolizes peace, prosperity and good health. Some say it even has the power to give the wearer eternal happiness, health and wealth. We say it's the perfect way to start each year!

The garnet is so durable, remnants of garnet jewelry can be found as far back as the Bronze Age. Other references go back to 3100 BC when the Egyptians used garnet as inlays in their jewelry and carvings. The Egyptians even said it was the symbol of life. The garnet was very popular with the Romans in the 3<sup>rd</sup> and 4<sup>th</sup> Century.

This gemstone was also used as a talisman for protection both by warriors going into battle and to those who wanted to ward off pestilence and plague. Some ancient healers and wise men even placed garnets in wounds and praised its healing powers.



# Geodes

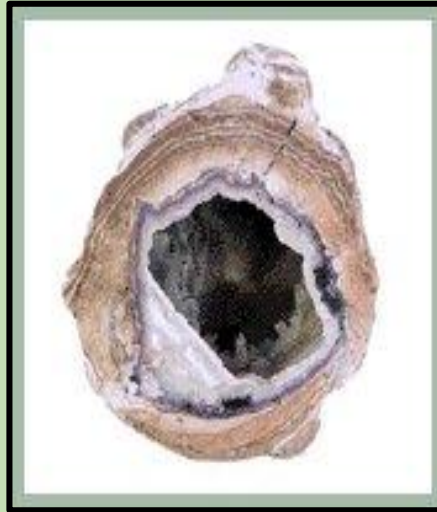
## A Very Cool Rock Formation

**Geodes** are like the Tootsie Roll Pop of the geology world because underneath the hard exterior lies a surprise in the center!

### Hollow Rocks

So, let's start at the beginning: how do you get a hollow rock with lots of sparkling crystals inside? First you need a hollow rock. Geodes start their lives as a hollow bubble inside a layer of rock. The bubble could be from air inside explosive volcanic rock or it could come from the hollow remains of animal burrows or tree roots. When these rocks form from air bubbles inside of volcanic rock it is pretty easy to picture. Think about the small air bubbles you see in pumice. Now, imagine just one of those bubbles completely surrounded by black or red volcanic rock. As rain pelts down on the hot bubble, the chemicals in the rock are slowly released into the water. Some of the water soaks through the hard, rocky outside of the bubble and is trapped for a moment on the inside.

As the mineral-rich water moves on through the bubble, tiny crystals are left behind, clinging to the sides of the bubble. Millions of years pass while this in and out flow of water gradually builds crystals inside the empty space. The crystal formations might become large single crystals or tightly packed micro-crystals, so small that you can't even distinguish one from another.



### An Animal's Home

Let's check out the development of our animal burrow bubble... Long after the animal has moved on or the tree has died and its roots have rotted away, the sediments that surrounded the hollow are being covered up by layers and layers of sediment hundreds of feet thick. Eventually the weight of these layers has caused the sediments to turn into rock: sedimentary rock. Just like our volcanic bubble, this animal burrow bubble is host to mineral-filled water flowing in and out through the hollow space. And just like the volcanic bubble, a wide variety of crystals are taking shape inside the animal's former home.

### Time Marches On

Fast forward to modern times. The water-soaked land where our bubbles began has become a vast desert where wind howls and the sun beats down. The ground, covered by rocks and scrubby brush yields up unusually shaped rocks. Today, you've found a good field of them and have three nearly-round specimens to crack open when you get home.

### All Geodes Are Not Created Equal

The first one is quite hollow but for a nice layer of medium-sized blue crystals. These **dugway geodes** have bands of blue and pink. The geode at the left and the one at the top of the page are both dugways from Utah. The colors come from the different minerals that flowed through the bubble so many millions of years ago. Another specimen is nearly solid all the way through. The **microcrystals** have formed wide bands of different colors and the tiny opening at the center has a thin ring of pointed crystals. Yet another is completely filled with solid rings of browns, reds and pinks. So, you've really found two geodes and one nodule. **Nodule** is the name for these round forms when they are filled solid.

**Continued on page 8**

## They Come In Colors

As each specimen offers up a different interior, you wonder, "What causes all the colors?" So you head to the computer and you've arrived at this page, so I'll need to tell you.

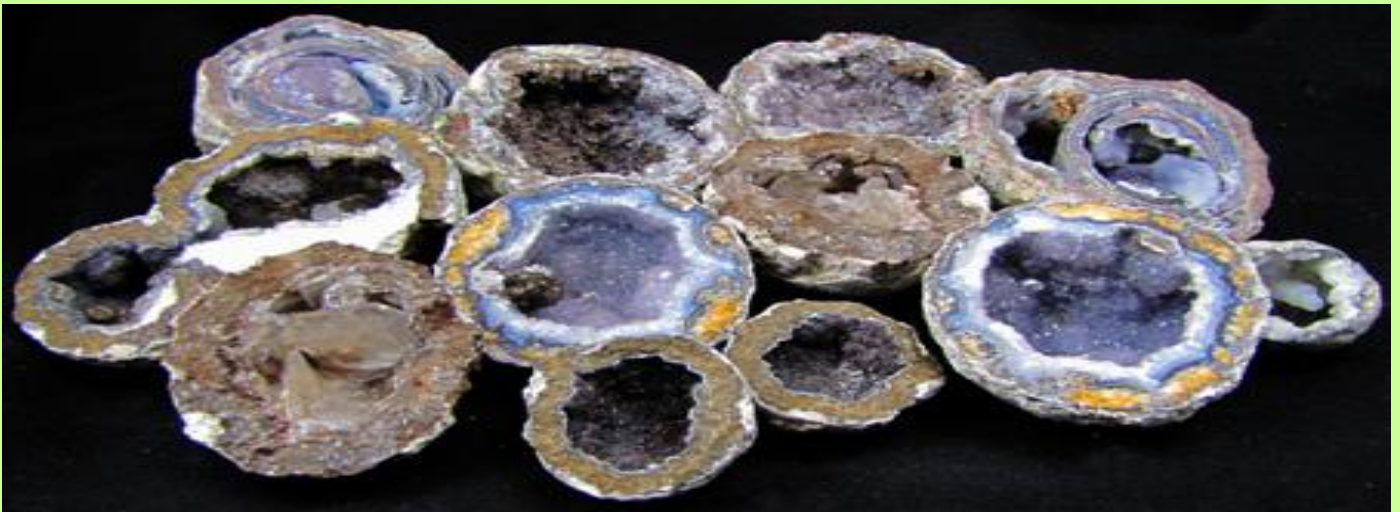
## Trace Elements

Remember the mineral-rich waters that flowed through the bubbles forming crystals inside? There is a variety of elements that can be present in mineral water. It would all depend on the type of rocks the water passed over and through on its way to the geode. Rocks contain iron, magnesium, sulfur or a host of other elements. Now, think about the variation that can occur in terms of saturation amounts of the different minerals. You can imagine that the different rocks forming from all these variations could be limitless. But there is some consistency that makes it easier for us.

## Quartz, Calcite, Or What?

Most geodes have interiors made of either **quartz** or **calcite**. Quartz crystals are silicates. Silicates are the most common mineral in the crust of the earth. Over 90% of the minerals present in earth's crust are silicates. With this said, you can imagine that silicates are a pretty big group with lots of variation in terms of specific chemical composition.

Calcite's main ingredient is **calcium carbonate**  $\text{CaCO}_3$ : dissolved calcium and carbon with some of the oxygen from the water thrown in.



## Small variations Can Make A Big Difference

Now, add in a trace of iron or magnesium or copper and, voila, you have color variation. Calcite with magnesium and a trace of manganese forms a nice pink dolomite layer, while iron in silicate accounts for the purples of amethyst.

## Heat Can Change It

Now if your geode was close to a lot of heat, that could change the color, too. An amethyst that gets a lot of heat loses its purple color and becomes a soft yellow or citrine. You can see why there are so many color possibilities.

## A Day In The Life

So, that little geode you're holding has had quite a journey getting to your hand. Treasure it for its beauty, but also for its history and the complex composition of minerals that made it. You're holding millions of years of work in your hand...enjoy touching the miracle of our earth's creation.







## JANUARY 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 Happy New Year	2 Tournament Of Roses Parade	3 Moroks Board Meeting	4	5	6	7
8	9	10	11	12	13	14
15	16 Martin Luther King	17	18	19 MOROKS General Meeting	20 Inauguration Day	21
22	23	24	25	26	27	28
29	30	31				

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Full Page for 6 months \$75

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