Ogden Rock and Gem Club

Beehive Buzzer

October 2014 Volume 42 Issue 10

Issue Highlights...

Club Notes:

- This month's club meeting at the Roy Library due to early voting.
- November's meeting on Nov 20 instead of Nov 27 at the Roy City Center.
- Time to pay annual dues!

Venue Change: This Month at the Roy Library!

Beehive Rock & Gem Club Program

Thursday, October 23 at 7:00 pm, Roy Library

Photo: Mojave Underground

We will be having a guest group called the "***Mojave Underground***" from the Provo area. They work with mining companies and other groups to investigate **caves and mines**. I understand they have a great visual program showing beautiful crystals and other phenomena. One of our members saw their program and recommended it.

If you missed our last meeting, there is an article with pictures of rocks and items found on the McDermitt field trip in this newsletter (Pages 5-7).

"Rocky" Ray, Program Chairman

Program this Month: Mojave Underground

You do not want to miss this month's program! *This is a good program to invite family and friends. Yeah, it's going to be that good. Mojave Underground will give us an unique perspective for rock hounds.* ***To learn more about Mojave Underground, go to Pages 3-4.***

That time of year…. ***Annual Dues***

For those who had paid, thank you! For those who haven't yet, Oops, they were due Oct 1. This is a reminder to get your dues to Dave Law. Membership dues are still $11 for Single and $16 for Family. What a deal!!!!

Calendar

October

23
Monthly Club Meeting
Roy Library
7 pm

31
Halloween

November

2
Daylight Saving Time Ends

4
Mid-Term Elections

6
Board Meeting
Roy Library
7 pm

11
Veterans Day

23
Monthly Club Meeting
Roy Municipal Center
7 pm

December

No Meetings
Have a Very, Merry Christmas

January

1
Board Meeting
Roy Library
7 pm

22
Monthly Club Meeting
Roy Municipal Center
7 pm

New Meeting Locale

We are looking for a new meeting locale. The current location is great except we get preempted by voting every election. The ideal location: is reasonably priced, consistently available every month, able to serve food and conduct club business, and large enough for 50 people. If you know any possible location, please pass it on to a board member.

Field Trip Photos

The 2014 field trip season is over. We had some great trips! If you have any photos from any of the trips you would like to share with the club, please send them to beehivebuzzer@gmail.com. I will include them in the next newsletter.

Editor


Via MOROKS, Oct 2014

On Halloween, the parents sent their kids out looking like me.

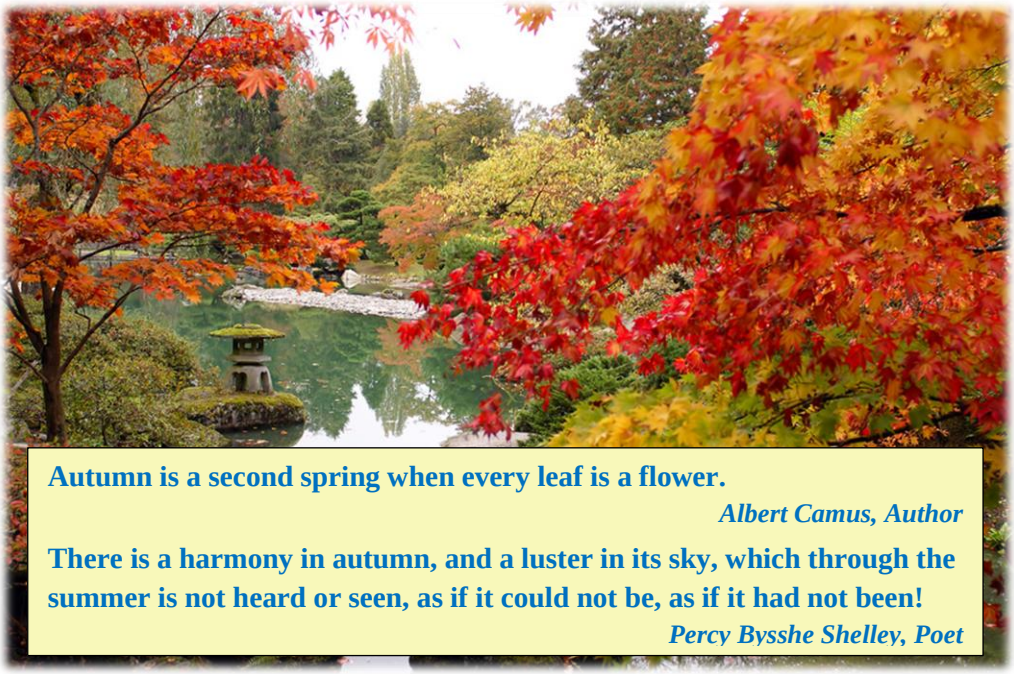
Rodney Dangerfield

This Halloween, the most popular mask is the Arnold Schwarzenegger mask. And the best part? With a mouth full of candy you will sound just like him.

Conan O'Brien

I see my face in the mirror and go, 'I'm a Halloween costume? That's what they think of me?'

Drew Carey



Autumn is a second spring when every leaf is a flower.

Albert Camus, Author

There is a harmony in autumn, and a luster in its sky, which through the summer is not heard or seen, as if it could not be, as if it had not been!

Percy Bysshe Shelley, Poet


Photo: Mojave Underground

What is the Mojave Underground?

Although it sounds like a 60's radical group, Mojave Underground is a non-profit organization founded by Stuart Burgess and Mike Capps in 2007. Simply put, they explore abandoned mines in the West (mainly in Utah). They document their adventures for the purpose of preserving these mines. They have formed a community of mine exploring enthusiasts.

Find out more by going to their web sites:

http://www.mojaveunderground.com/

https://www.facebook.com/MojaveUnderground

For videos, go to:

http://www.youtube.com/watch?v=j7bN73By1n4

http://www.youtube.com/watch?v=9sHbsdG97mU

From the Media:

The Underground Local Couple Turns Love of Mines into Careers

By James Roh, Daily Herald, August 22, 2011

'For most people, underground mines are thought to be remnants from a bygone era that came and went. In addition, the resulting miles of underground tunnels incorporate several common phobias: pitch black darkness, claustrophobia, heights, and a general fear of the unknown. However, to a growing community of abandoned mine explorers, these same tunnels also represent an opportunity to experience unaltered history…

"It gives a voice to the hobby," Stuart Burgess said. "We all just love history and we share it."

Upon receiving permission to enter the mines, many of the Mojave Underground projects include restoring and preserving mines, as well as extracting artifacts for the public to see and appreciate. Currently, the group is working to extract a pneumatic winch deep within the Ophir Hill Mine. By placing these artifacts on display outside of the mine, history comes alive for people who may never venture into an abandoned mine.

"It's been a really good melting pot for people in the community that are interested in mining and enthusiasts like ourselves," said Jeremiah Chesley, an active Mojave Underground member.

…Burgess has explored hundreds of mines and quit his day job in October 2010 to operate a professional mine exploring business with his equally mine-infatuated wife. Burgess even proposed to Crystal during a mine exploration outing. Through Burgess Exploration LLC, the two work to explore and document mines for claimholders.'


Photo: Mojave Underground

For full article, go to:

http://www.heraldextra.com/news/local/the-underground-local-couple-turns-love-of-mines-into-careers/article_cf4e9c10-1fbe-5ba9-9836-88c050a76c81.html

Abandoned Mines

By Alan Farnham and Zack O'Malley Greenburg
Forbes, October 24, 2008

'Bureaucrats call them death traps and want to board them up. Adventurers call them time capsules and want to go down and explore

"God, I love that!" says Michael Capps, smelling the cool, moist air burbling up from 20 miles of dark, abandoned tunnels. He stands half in shadow, half in sun, pausing, with five companions, at the portal to the Ophir mine. They check their Orion Multi Gas Detector from Mine Safety Appliances , which will warn them of any pockets of carbon monoxide, hydrogen sulfide or methane. "This mine's a spoiler," says Capps with evident satisfaction. "You're not going to go into any mine that's better."…

No one knows exactly how many abandoned mines exist. There are tens of thousands in Utah and hundreds of thousands in the U.S. "New" ones (unlisted in Bureau of Land Management or National Park Service records) are being discovered every day, some by accident, most by adventurers who hunt them out…

A mile into the Ophir and 2,000 feet below ground, the tunnel widens into a hall of wonders–an irregularly shaped void (or "stope") whose volume is greater than the Goodyear Blimp's. Here are dogtooth spars–translucent crystals as big as lipsticks. Sections of the wall are aqua blue, colored so by dripping water that contains copper and calcite. There are deposits of galena (silver and lead, mixed in a brilliant shiny gray) and buttery-hued copper pyrite.

Farther on, in a side chamber, lies a lake fed by seeping water. Its surface looks opaque till someone throws a rock, dispersing the scrim of floating calcite and revealing water blue-green, deep and beautifully clear. A sign, partly submerged and pointing toward the bottom, says "This Way Out."…

Burgess and Capps are trying to get mines and their related structures (such as mills) added to the National Register of Historic Places. They also see a chance to protect abandoned mines by protecting species–some endangered–that inhabit them. These include various kinds of bats, owls, hawks and eagles. Caves are protected by the Cave Protection Act, which Burgess thinks could be amended to include mines.'…

For full article, go to:

http://www.forbes.com/forbes/2008/1110/156.html

Photo: Mojave Underground

Utah Names for Mars Rover Mission

Utah Geological Survey, October 2, 2014

At the request of NASA, Tom Chidsey (geologist for the UGS) supplied a list of Utah-related names for use during the current operations of the Mars Curiosity rover mission. As the rover begins its journey up the slopes of Mt. Sharp, NASA scientists are starting to use names from the Utah list to reference specific Martian rock outcrops. Names like Upheaval Dome and Shinarump have already been used. Follow THIS LINK to see amazing photos and commentary. Out of this world!

Election Day Nov 4, 2014

Early voting is available in Utah Oct 21-31.
For early voting locations & hours:
http://vote.utah.gov/vote/app/earlyVoting/index.html

Not registered yet? You have until Oct 27 to register online:
https://secure.utah.gov/voterreg/index.html

Via MOROKS, Oct 2014

The 2014 McDermitt Field Trip

By "Rocky" Ray

Great field trips are long remembered. This will be one of them for those who journeyed the 8-9 hours to the small community of McDermitt which straddles the Nevada - Oregon state line being 76 miles north of Winnemuca, NV.

Geologically, this is a unique volcanic area in which a large explosive "Caldera" was created 16.9 MYA when this portion of the American Tectonic Plate passed over the same mantle "hot spot" as it does today in the Yellowstone Park area. Many beautiful volcanic jaspers were created by volcanism along the trail of this hot spot between the two areas. See Wikipedia for the subject "Yellowstone Hot Spot" + McDermitt on the internet for good visuals about this.

For me personally, as a geologist, it was thrilling to see, from a high point on one of the roads within the McDermitt Caldera, the edges of the 28 miles by 22 miles oval depression left by the explosions and central collapse o ver the emptied, deep magma chamber below. Most of these explosive "calderas" or "super volcanoes" cannot be visually be seen on the ground or even recognized from the air. This is a classic example of one.

We were pleased to have two persons (Sherm Thomson & Ray Law) who had been out here previously who could lead us to many of the rock collecting sites in this large area. In addition, one day we had a neat local community leader, Jack Crittenden, lead us out to other areas. We had an enjoyable time together; great weather, and a good area to camp (thanks to "Kitty" – a local motel owner).

At our last Club Meeting (September 25th) a number of the great rock and mineral samples from this area were shown by those involved in the trip. They included:

1) Gary Green Rhyolite (Larsonite) – very nice greens, blue greens, blues. Nancy Anderson (our VP) created a beautiful, silver-mounted cabichon in time to show at the club meeting.

2) Picture Stones – the best had grayish blues representing skies.

3) "Chicken Scratch" –on slabs in light colored tuff - casts of mud-crack infills

4) Beautiful Rhyolite Jaspers from the core area of the large open-pit McDermitt mine.

5) Light gray and tan Opalite pieces with red streaks of Cinnabar (Mercury)

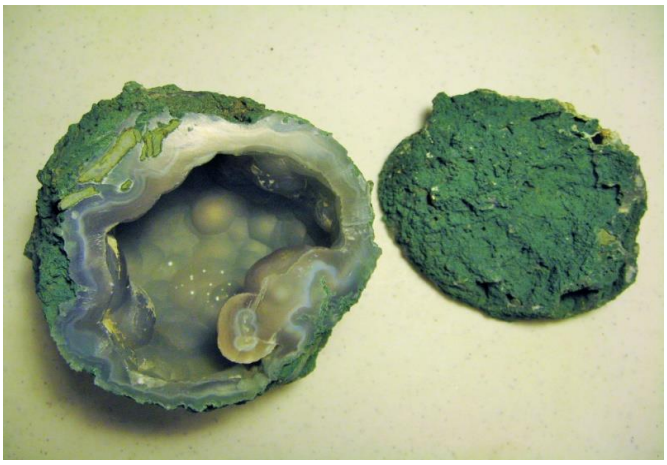
6) Wonderstone sample

7) Other massive green Opalite layers

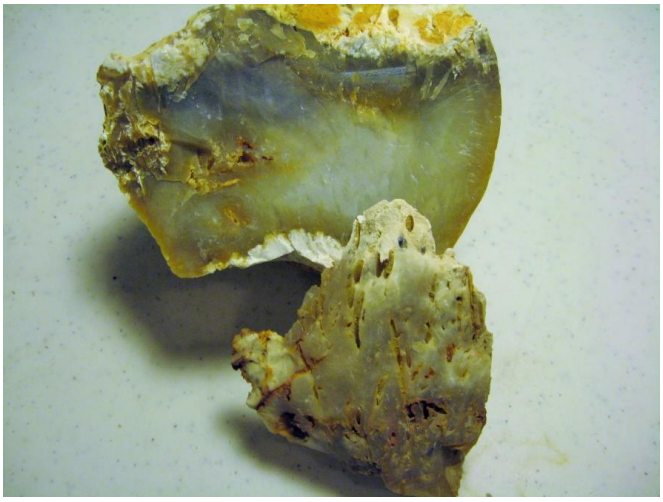
8) Fluorescent samples with multiple colors (shown at meeting by Dave Offret) –not shown

9) Nice Wood pieces – not shown

10) An unusual botryoidal (interior) geode with brilliant green exterior – from Jack Crittenden, found East of the town.



11) "Grass blades" in the chalcedony of the lake bed deposits



Other noted happenings/interests of these Beehive rock-hounders camping out:

The Thomsons brought along their delicious varieties of apples plus watermelons for field time snacks. The Andersons had their outdoor dining room and also a gathering place for rockhound "war stories" in the evenings. "Rocky" Ray, rousted everyone out when dark to check for fluorescense in the rocks collected each day. We all went to church on Sunday at a small town about 30 miles to the south. Steve Smith and Dave Offret were known as the "gourmet cooks" of the camp by creating exotic breakfast each morning. They also had an unusual experience having two punctured truck tires on the last day which took up most of their day due to the limited resources of the small town and people capable of helping them. Dave showed pictures of that experience at our meeting along with the other pictures projected on the wall during the meeting.

These kinds of experiences, successes and trips fortify the "rock-hounders" of the Beehive Club.....RR

New Kid on the Rock: American Rockhound Magazine

By Timothy Foard

Earlier this month I received word of a new quarterly publication tailored to rockhounds, aptly named "American Rockhound Magazine". The publication's editor and owner, Rick Jacquot, is also the president of M.A.G.M.A. (Mountain Area Gem and Mineral Association). The magazine started this year and is based in western North Carolina.

The first issue almost exclusively features articles from that state, and is particularly heavy on the subject of emeralds. Also, in this issue, Rick contributed to most of the articles. As to be expected from a new publication, the first issue is also the introductory issue, with info on the magazine staff and the direction the editor wishes to move with this new magazine. The regular columns for the first two issues include a field trip section, a kid's corner, laws pertaining to the hobby, a featured rockhound, and even a recipe corner.

The second issue, while also heavy-handed in NC minerals and localities, did include a familiar Virginia locale, the Simpson's Farm Amethyst site. Lapis from Afghanistan was another feature article from this issue. The first two issues contained no articles on fossils, although the editor wishes to include them as well as artifacts in the magazine.

The third issue, to be released in September, will feature an article on South Carolina fossils.

In order to break away from being a local or regional publication, a lot less emphasis on the Tar Heel State will be required, something I am sure he realized and which is probably the reason for the outreach to rockhounds from other areas of the country.

Submissions are welcome; the home page has a "Writer's Guide" section.

Yearly subscription is $36.00 ($6.00 shipping) for hardcopy; $15.00 ($6.00 shipping) for electronic versions. Single (quarterly) paper and electronic issues are $10.00 ($2.00 shipping), and $5.00 ($2.00 shipping), respectively. Address is: American Rockhound, PO Box 542, Leicester, NC 28748. (www.americanrockhoundmagazine.com)

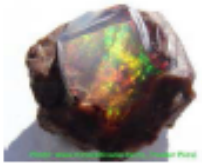
Rock Talk, Southern Maryland Rock & Mineral Club, Aug 2014

GEM OF THE MONTH OF OCTOBER: OPAL

Opal is **the** Gem for much of the World's Gem Lovers. Opal is a translucent, non-metallic mineral of hydrated silicon dioxide. It is a light weight fragile form of quartz containing 3% to 9% water. This water can be lost through tiny fractures when the opal is exposed to air. Care should be taken to avoid pressure and heat in order to preserve its attractive multi-colored iridescence.

Opal is never found as crystals, its structure is not truly crystalline and it is considered a *mineraloid*. Under 40,000x magnification, opal reveals its structure, minute spheres of amorphous silica, all stacked in an orderly, three-dimensional arrangement and separated by narrow spaces. The spaces diffract light into its component wavelengths, some of which are reflected back, which we perceive as the 'fire' of opal, a microcosm of our planet's fiery birth.

In Hungary/Czechoslovakia, opal was found in volcanic rocks. These opal were the ones treasured by the Romans, who actually thought they came from India and so called them '*opalus*' a word based on an ancient Indian word '*upala*' meaning 'precious stone'. Opals occur in silica-rich environments, as crusts globules, small veins or blebs.



In Australia, in the late 1800's, opals were found in sedimentary rocks, where they may replace the fibers in fossilized wood, the skeletons and shells of marine organisms and clusters of glauberite crystals (bearing a superficial resemblance to pineapples or pine cones, and called 'pineapples' in Australia).

Boulder Opal occurs in ironstone concretions found in sedimentary strata. In appearance opal ranges from colorless to world class blaze (Andamooka), to the red-multicolored fire out of a rich black (Lightning Ridge); sometimes hazy-blue, sometimes milky white (Coober Pedy); even a plain brown lump of ironstone (Yowah Nut opal, outback in Queensland). All precious opal in South Australia occurs in rocks affected by weathering during the Tertiary Period, some 15 to 30 million years ago, when the minerals on the country's rock broke down to produce kaolin and soluble silica, creating cavities in the rock, providing pathways for underground water containing the soluble silica released by the weathering.

In Louisiana, precious opal is sometimes found 'trapped' in its matrix. White, black, blue, water-clear, precious opal in quartzite. The opaline silica that originates in a deep subsurface artesian spring, rises up through sediment and cements quartz sand, this cuts and polishes easily, without crazing or undercutting.

In Sonoma, common opal of quiet beauty if found. Fine fire opals were mined in this area by J.H.Weise until 1913, and one fire opal was found near Calabasas Creek as recently as 1978. The background color was peach and the fire primarily red with some green. White opalite or gray clay is sought, the matrix in which is seen veins of different colors of the peach opal. The veins always run at a 45° angle, with eight to twelve feet separation, each vein having its own particular characteristics. One may be translucent pink, another golden yellow with white 'blossoms'. Colors range through bright red, pastel red, pink, peach, gold, orange, yellow, cream and white. It may be totally translucent or opaque, much of it patterned. All of it is delicate and beautiful enough so that it is exciting to work even with the lack of fire. **Lapidary Journal, 6/78**

In Bamboo, ***Tabasheer*** is an uncommon variety of opal found in bamboo joints and said to be used for jewelry in the Orient. Tabasheer is very similar in appearance to ***cachalong***, and becomes translucent when immersed in water. This property may have been discovered because opals have frequently been kept in vials of water to prevent them from self-destruction. The marvelous colors in opal when first brought out of the ground may in time go dull from cracks from drying out or get cloudy from microscopic bubbles of water being trapped in the opal.

Petrograph Oct 02

Via Golden Spike News, Oct 2014

The Preparation Of Opal For Making Doublets And Triplets
by Don King, Mobile Rock & Gem Society

Although there are exceptions, Australian Andamooka Opal, Louisiana Opal-in-quartz and Honduran Opal are best when made into doublets or triplets. Opal from Spencer, Idaho is best made into a triplet. Other types of precious Opal from Australia can also be candidates for capping.

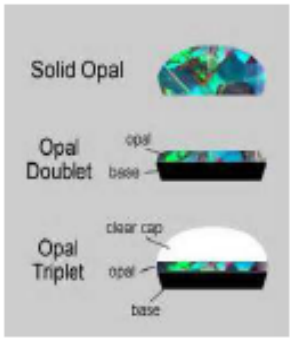
Types Of Opal Being Capped.

The Andamooka matrix Opal, while not difficult to sand and polish presents as a better stone when capped with optical quartz or glass.
The Louisiana Opal in quartz is almost impossible to get a good show piece since the quartz tends to pop out during the grinding and polishing phases.
The Honduran Opal is in a matrix that generally has white/grey/brown patch scattered throughout the stone. I generally prefer to slice the rough if it isn't already sliced.

Capping.

Since we are going to cap the opal, the stone can be as little as 1/8 to 1/4 inch in thickness (for doublets). This thickness does not require additional backing for strength.
Triplets will require a backing of basalt or other type stone since the Opal will be very thin and not have the thickness for the strength needed to make a good solid stone.

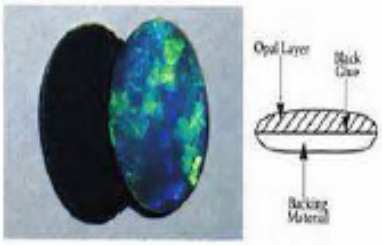
I recommend pre-forming the stone with the flat top like it came from the trim saw. The flat top is rough ground on a Flat Lap of 400 to 600 grit. Flat topping can not usually be accomplished on a standard cabbing machine round wheel. The sides (edges, and bottom) of the stone (for doublets) should be sanded and polished to size. The top side (the side with the best color play) should be left slightly rough.



The cap stone (optical quartz or glass) should have the bottom side (the side to be glued to the stone) roughed on a 400 to 600 grit flat lap. The cap can later be finished to size after completing the capping. To cap a stone, first mix Epoxy according to the directions of manufacturer. I recommend using a glass rod for mixing. Mix slowly so as to minimize the amount of air bubbles in the bonding material. Use Epoxy 330 Water Clear for best results. Pop any air bubbles with a toothpick or pin. A gentle breath blown across the mixture may also pop some of the trapped air bubbles.
Put stone on wax paper or other throw away material. Apply epoxy to prepared Opal form, align cap (rough side down) over pre-form and apply gentle pressure to work any remaining air bubbles or air pockets. The epoxy sets up better if kept warm for several hours before touching or moving the stone.
Any excess epoxy that may drip off on the wax paper can be thrown away, or may be ground off during the finishing of the cab work after the epoxy has hardened, usually overnight.

To Form A Triplet.

A triplet may be prepared in a similar manner, except the Opal will be set sandwiched between the quartz cap and a solid back made from basalt or some other type dark stone
via West Seattle Petroglyphs, 3/14; from Snoopy Gems, 5/08 CMSetumbler 9/14



Via Golden Spike News, Oct 2014

What are Fulgurites and Where Can They be Found?

By Carl Ege

Sand fulgurites found on the top of Mount Raymond. U.S. quarter for scale.

Most people have never seen a fulgurite, and many that have probably did not realize what it was at the time. Fulgurites are natural tubes or crusts of glass formed by the fusion of silica (quartz) sand or rock from a lightning strike. Their shape mimics the path of the lightning bolt as it disperses into the ground.

All lightning strikes that hit the ground are capable of forming fulgurites. A temperature of 1800 degrees Celsius is required to instantaneously melt sand and form a fulgurite (most lightning strikes have a temperature of 2500 degrees Celsius). Fulgurites have been found worldwide, but are relatively rare.

Two types of fulgurites have been recognized: sand and rock fulgurites. Sand fulgurites are the most common and are generally found in beach or desert regions containing clean (free of fine-grained silt or clay), dry sand. They resemble roots or branching tube-like structures that have a rough surface, covered with partially melted sand grains.

Sand fulgurite tubes have a glassy interior, due to rapid cooling and solidification of the sand after the lightning strike. The size and length of a fulgurite depends on the strength of the lightning strike and the thickness of the sand bed. Many sand fulgurites average 1 or 2 inches in diameter and can be up to 30 inches long. Sand fulgurites have been found in Utah's deserts and on top of some of the higher summits of the Wasatch Range.

Earth Shaking News: Did you know that in Utah there are little earthquakes all the time? Actually, according to earthquaketrack.com, Utah experienced 41 earthquakes last month and 507 in the past year.

Rock fulgurite (circled in white) found on quartzite at the summit of Mount Raymond in the Wasatch Range, Salt Lake County, Utah. Hammer for scale.

Coatings or crusts of glass formed on rocks from a lightning strike are called rock fulgurites. These fulgurites are found as veins or branching channels on a rock surface or lining preexisting fractures within the host rock. Rock fulgurites are primarily found on the top or within several feet of mountain summits.

Mountain peaks are natural lightning rods that are repeatedly blasted by lightning strikes during severe weather. Rock fulgurites can be found throughout many of the mountain ranges of the world, including the French Alps (Mont Blanc), Pyrenees Range, and western U.S. mountains such as the Sierra Nevada, volcanic peaks of the Cascade Range, Rocky Mountains, and Utah's Wasatch Range.

While hiking in the summer of 2003, I discovered both sand and rock fulgurites on some of the higher summits of the Wasatch Range. I observed very small sand fulgurites (an inch or less) in some of the surface float on top of Mount Raymond (10,241 feet) and Broads Fork West Twin (11,328 feet).

I also found rock fulgurites on top of Mount Raymond, Broads Fork West Twin, Mount Baldy (11,068 feet), and Mount Timpanogos (11,749 feet). Some of the rock fulgurites, such as those found on Mount Timpanogos, are the result of human activity (a steel shelter placed on top of the peak attracts lightning).

In the Wasatch Range, rock fulgurites appear to be confined to mountaintops composed chiefly of quartzite, but summits consisting of other rock types could have them as well.

So, the next time you go hiking or exploring be on the lookout for fulgurites! It is very possible new fulgurite discoveries await the adventurer on many of the higher summits and desert areas of Utah.

Glad You Asked article, *Survey Notes*, v. 37 no. 1, January 2005, Utah Geological Survey

Officers & Club Information

2014 Board of Directors

Officers

President	Dan Siler	801-737-3013
Vice President	Nancy Anderson	801-425-7470
Secretary	Dave Offret	801-791-6081
Treasurer	David Law	801-731-4255

Activity Committee and Chairpersons

Field Trip Leader	Roger Bush	801-775-0147
Program	Ray Rutledge	801-732-8331
Door Prize	Jim Alexander	801-399-0785
Hospitality	Linda Pilcher	801-392-7620
Communications		
Membership	David Law	801-644-4931
Mini-show	Alice Crittenden	801-547-7781
Safety	Dennis Anderson	801-425-7470
Publicity	Mark Acker	801-475-4705
Buzzer Editor	Linda Pilcher	801-392-7620
Associate	Dave Harris	385-205-0304
Associate	Leora Alexander	801-399-0785
Photographer	Shari Bush	801-388-8605
Calling Committee	Sherm & Ricky Thompson	435-760-1362

Federation Representatives

Rocky Mountain Federation Delegate	Dan Siler
Utah Federation Delegate	Open
Public Land Advisory Committee	Jim Alexander

Club Affiliations

The Beehive Rock & Gem Club began in April of 1970 and is a member of the following:

Utah Federation of Mineralogical Societies
Rocky Mountain Federation of Mineralogical Societies
American Federation of Mineralogical Societies
Scribe

Advertising Rates:

For sale ads are permitted for members at no charge. Business advertisements will be charged at the rate of $5.00 for ¼ page or 15 cents per word for less than ¼ page.

General Objectives of the Club

The purpose of our club is to stimulate interest in the collection of rocks, minerals, gem materials, and legal fossils. To discuss and impart our knowledge of the different phases of collecting, cutting, polishing and displaying them. Also to organize educational meetings, field trips and similar events while enjoying and protecting our natural resources.

Membership Dues

Yearly membership dues are for adult members are

Single	$11
Couple or Family	$16
Junior (Under 18 not part of family membership)	$5

Dues are due October 1 of each year.

Meetings

General club meetings are held at 7 pm on the fourth Thursday of each month in the multi-purpose room of the City of Roy Municipal Center located at 5051 South 1900 West, Roy, Utah.

All visitors are welcome!

Board Meetings are held at 7 pm on the first Thursday of each month at the Roy Library located at 1950 West 4800 South, Roy, Utah.

Newsletter

The Beehive Buzzer is the official newsletter of Ogden Beehive Rock and Gem Club and is published eleven times per year. Please send submissions and exchange bulletins to beehivebuzzer@gmail.com.

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