

BEEHIVE ROCK & GEM CLUB
DAVID HARRIS, EDITOR
2208 NORTH 700 WEST
OGDEN, UT 84414



Notice:

Next meeting on Nov 17th due to Thanksgiving!
Time to pay annual dues!
Thanks to those who have already paid!

**TIME VALUE DO NOT DELAY
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BEEHIVE ROCK AND GEM CLUB

P.O. BOX 1011
OGDEN, UTAH 84402

VOL. 39 No. 11

Website: <http://www.beehivrockandgem.com>

November 2011

**MEMBER OF UTAH FEDERATION OF MINERALOGICAL SOCIETIES
ROCKY MOUNTAIN FEDERATION OF MINERALOGICAL SOCIETIES
AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES**

The Beehive Rock & Gem Club began in April of 1970.

The purpose of our club is: To collect, cut and polish rocks, to gather fossils, mineral specimens, to discuss and impart our knowledge of the different phases of collecting, polishing and displaying-

To promote, organize and hold meetings, outings, trips, and similar events. To enjoy and protect our natural resources.

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**USUAL DATE FOR MEETING – FOURTH THURSDAY – 7 PM
OGDEN HINKLEY AIRPORT TERMINAL, 3900 S & AIRPORT ROAD
November, December have changes. Maybe others.
Call any Board member for current information.**

BOARD OF DIRECTORS OF THE BEEHIVE ROCK & GEM CLUB FOR 2011

President & Board Chair	Joe Kent	801-771-8184
Vice President	Steve Smith	801-731-4216
Secretary	Norine Ramos	801-774-8306
Treasurer	David Law	801-731-4255
Field Trip Coordinator	Roger Bush	801-775-0147
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Mini-show Chair		
Safety Chair	Lynn Hayes	435-723-2216
Publicity	Mark Acker	801-475-4705
Managing Editor of BUZZER	Dave Harris	801-737-1266
Associate	Leora Alexander	801-399-0785
Calling Committee Chairs	Sherm & Ricky Thomson	435-760-1362
Calling Committee Chairs		

FEDERATION REPRESENTATIVES**DUES**

Rocky Mountain Federation Delegate -----President	Due: October 1
Utah Federation Delegate -----TBA	Single - \$11
Public Land Advisory Committee ----- Jim Alexander	Couple or
	Family - \$16
	Junior - \$5
	Overdue: January 1

Beehive Rock & Gem Club Meeting**November 17, 2011****(One week earlier due to Thanksgiving but at the usual time of 7pm)**

The archeologist of the Hill AFB 75th CEG Cultural Resources will speak to us on what she does to help preserve artifacts on Air Force property. Joe Kent has talked with her on several occasions and says that what she does is fascinating and will be of interest to the group.

We will also hold elections for board members, which consists of the positions of President, Vice President, Secretary, and Treasurer. If anyone would like to run for these positions, let a current board member know.

Note for January 2012 Program:

As usual, "Rocky Ray" is putting together a slideshow of the our 2011 Rock Trips for the January meeting. He is requesting for members to send their photos to him by the second week of January.

Send photos to: rrkrutledge@gmail.com

Note for December Meetings:

No club or board meeting to be held in December. Newsletter to be published.

Time to Pay Annual Dues!

Thank you to those who have already paid!

Presidents Message

November 9, 2011

It is time to think about the mini show at the Huntsville Library. Dean Bennett is unable do the organization this year. I had asked for volunteers and not received any so I started twisting arms. The first to yield and say uncle was Alice Crittenden. Thanks you Alice, and I'm sure Carroll as well.

Those of you who may be interested in setting up a display this year please contact Alice and leave your phone number so that she may contact you with the dates and setup time.

On November 17, our next club meeting, the elections will be held. All officers may be apposed by nominations taken from the floor. If there are no opposition candidates presented, the existing officers they will stand as constituted. **All nominees must be approached and agree to their nomination prior to the meeting on the 17th.**

On another note our **January Pot Luck Dinner** will be accompanied by a slideshow presentation of pictures taken by club members and visitors during trips and club activities. Rocky Ray (Rutledge) will be compiling the presentation. Please bring any .jpg pictures on disk or flash drive to the meeting and give them to him so that he can get the presentation put together.

Though the weather didn't exactly cooperate we had a good trip to Flow Wash. Not as many people were in attendance this year. Bonnie and I spent most of our time looking for new areas for Pidgin Blood and Olives. I'm happy to report that after cutting some of the material that we collected we were successful. We are looking forward to the trip next year.

If we don't see you at the next meeting have a happy Thanksgiving.

Joe Kent
President

Show Dates

November

19-20—PAYSON, ARIZONA: 14th annual show; Payson Rimstones Rock Club; Mazatzal Hotel & Casino Event Center, Bingo Hall, Tonto Apache Reservation; adults \$3, children under 12 free; gems, minerals, fossils, lapidary equipment, education center, spinning wheel, silent auction; contact Margaret Jones, (928) 476-3513 or (928) 970-0857

26-27—WICKENBURG, ARIZONA: 11th annual show, "WOWW Gem Fair"; Wickenburg Gem & Mineral Society; Wickenburg community Center, 160 N. Valentine St.; free admission; Sat. 9-5, Sun. 9-5; more than 40 dealers, gems, minerals, jewelry, door prizes, grab bags, spinning wheels, raffle; contact Beth, (480) 540-2318 or (928) 684-0380

January 2012

1-31—QUARTZSITE, ARIZONA: Wholesale and retail show; Desert Gardens RV Park; 1055 Kuehn St., I-10 Exit 17; Sun. 9-6 daily; free admission; crystals, minerals, rough, polished, jewelry, lapidary equipment; contact: Sharon or Sandy, 1055 Kuehn St., Quartzsite, AZ 85346, (928) 927-6361; e-mail: dggemshow@ureach.com; Web site: www.desertgardensrvpark.net

6-15—QUARTZSITE, ARIZONA: Annual show; Tyson Wells Enterprises Inc.; Tyson Wells Show Grounds, 100 W. Kuehn St.; Fri. 9-5 daily; free admission; rocks, gems, minerals, jewelry, silver and gold smithing, faceting, precious metals, lapidary tools, equipment, supplies; contact: Kym Scott, P.O. Box 60, Quartzsite, AZ 85346, (928) 927-6364; e-mail: tysonwells@tds.net; Web site: www.tysonwells.com

January - February 2012

26-12—TUCSON, ARIZONA: Wholesale and retail show; Eons Expos RLLLP; 22nd St., at I-10; Thu. 9-6 daily; free admission; minerals, fossils, dinosaurs, crystals, gems, jewelry, meteorites; contact: Christine Coyle, 38 Fox Ridge Rd., Sparta, NJ 07871, (516) 818-1228; e-mail: lowellcarhart@yahoo.com; Web site: www.22ndstreetshow.com

28-11—TUCSON, ARIZONA: Arizona Mineral & Fossil Show; Martin Zinn Expositions; Ramada Ltd., 665 N. Freeway; Thu. 10-6 daily; free admission; more than 400 dealers, free shuttle among locations, Artists' Gallery at the Hotel Tucson City Center; contact: Martin Zinn Expositions, PO Box 665, Bernalillo, NM 87004-0665; e-mail: mzexpos@gmail.com; Web site: www.mzexpos.com

Check www.rockngem.com/showdates for other shows.

December Birthdays & Anniversaries

ANNIVERSARY - Turquoise, 5th Zircon, 19th.

FLOWERS – Narcissus and Holly are traditional. The Poinsettia certainly deserves a designation, too. It already has a place in modern celebrations.

Lapis Lazuli

By Chuck Boblenz,
Santa Clara Valley Gem and Mineral Society member



Introduction

Lapis Lazuli has intrigued people around the world for centuries. Its vivid, exciting blue color has mesmerized those admiring the works of art and jewelry. The list of admirers includes people from every walk of life and includes kings and emperors. This intrigue is

caused by the spectacular deep, vivid blue color. In fact, it is so distinct a color that it is hard not to notice it when worn in jewelry or seen in the rough.

History

In the early years of 3300 B.C., in the country we know as Iraq and along the Euphrates River which flows through the country, pieces of Lapis Lazuli were found. The pieces being found at this time were finished gems and jewelry found in Sumerian tombs from earlier civilizations. These pieces had been carved into the forms of birds, deer, and rodents, having been made into dishes, vases, beads, and cylindrical seals used in the times of the Sumerians.

Later in the 1300 B.C. years, thousands of similar jewelry items were buried with King Tut. These pieces used Lapis Lazuli extensively, making use of the contrast of gold and the deep blue color to attract one's eye. Many of these were items that were displayed in a traveling display several years ago.

Pliny writes of sapphires of both "light and dark blue" in the year 79 A.D.. It is believed that his reference to sapphires of dark blue was aimed at describing Lapis Lazuli. In fact, so little had been written till this time, allowing some historians to be concerned about interpretations of these early writings which have been found.



BIRTHSTONES – Turquoise – Hydrous basic aluminum phosphate, plus copper. Moh's scale 5.

"It may be the first gem rock used for jewelry." [In Egypt about 6000 –75000 BC, in the U.S. native jewelry dates back to first people in the area.] "That the blue, even the greenish-blue of turquoise may fade is well known. In old Germany, it was often used for engagement rings and was thought to retain its preferred color as long as love endured, but to fade if the one wearing it was unfaithful! Something about True Blue?" Napa Gems 12/04

Blue Zircon for success – zirconium silicate, 6.5 to 7 on Moh's scale of hardness. Found in "gem gravels" of Cambodia, Thailand, Sri Lanka (Ceylon), Africa and a few places in the U.S. – "This gem occurs in green, yellow, honey, browns, oranges and red as well as the better known colors of blue and colorless. Zircon is prized for its fiery brilliance and because of this, it was an early substitute for diamond." Excerpted from Quarry Quips 12/92

Lapis Lazuli = Hardness 5 – 5.5

"—lapis is actually a rock, rather than a mineral, lazurite, plus variable amounts of diopside and other minerals.—" The finis lapis is considered to be a solid, deep blue with no white calcite spots and just a sprinkling of brassy yellow pyrite. Excerpted from The Rockfinder via the Glacial Drifter 9/07

In the years of the 1200's, the Pope had heard of vast lands to the east called the Mongol Empire. He learned from the many traders and adventurers returning to Rome of this vast land and its people. This information caused him to follow his tradition and to introduce these peoples to Christianity.

In 1245 the Pope selected Giovanni de Piano Carpini to go to the east and seek the lands of Genghis Khan. Carpini was able to travel to the northern reaches of the Gobi Desert. In these travels he did meet the Khan, but was not successful in converting him to Christianity.

Upon hearing of Carpini's return to Rome and receiving his report, the Pope sent Guillaume de Rubrouck with the same charter: to locate the Great Khan and to convert him to Christianity. Rubrouck traveled further east surpassing Carpini in his travels and succeeded in getting to Karakorum, the capital of the Mongol Empire; however, he was equally not successful in converting the Khan before returning to Rome.

In 1260 two brothers, Niccolo and Maffeo Polo, set out from Venice eastward toward Constantinople. Soon after they started their journey, they decided to extend their trip and to allow geography and economics to direct the direction that they went. This decision was monumental in that it allowed them to be the first "Latins" to cross the full Asian continent.

These travels allowed the brothers to meet Kublai Khan's cousin, Barka. This friendship caused them to spend a year in Barka's domain dealing in fine gems and jewels from the area. As the second year was beginning, a war was brewing, causing the brothers to continue their journey.

As they were leaving, they found that their way was blocked by the war, so chose to go north into an area governed by the Khan of Turkistan. They then remained in this area for three years.

Barka's domain included the present country of Afghanistan and slowed the Polo brothers to see the many mines in the northern part near the Oxus River. This is the locale where early Lapis Lazuli is found. The brothers' keen interest in gems and jewelry caused them to barter and trade for this fine material.

During the brothers' stay in this part of the Mongol Empire, they succeeded in meeting the Great Khan. During one of their meetings, the great Khan gave them a message to be given to the Pope and he assured their safe passage back with a golden tablet

with the mark of his seal upon it. With the passport, they safely returned to Venice with great wealth and many stories of adventure. They were soon preparing for a return trip to the Khan's Empire. On this trip Niccolo's son, Marco, joined the brothers and found great acceptance into the Mongol Empire by the Khans. This began a number of trips for Marco over the next two decades where he acquired and traded the prized Lapis Lazuli throughout these journeys.

Leonardo de Vinci sought honest paint dealers that would take Lapis Lazuli powder and mix it into their paints which he sought for that particular blue in his paintings.

It should be noted that there were also dishonest paint dealers during this time. They found that they could substitute Azurite for the bluing agent and sell a similar colored paint. The unfortunate thing that happens to the paint mixed with Azurite is that after a period of time it will turn a very bright green, much to



the embarrassment of the artisan and causing a deep concern for the paint dealer. This green color is caused by the copper in Azurite turning it to Malachite over time.

Detail

Lapis Lazuli is pronounced Lap'is Laz-yoo'le. The first word has the emphasis placed on the lap' and the smaller emphasis on the is; the second word Laz has a long a and the yoo' sounds like you and le sounds like lay. Go ahead and try it. It's easy to pronounce, isn't it?

The dictionary describes it as: 1. an opaque, azureblue to deep blue gemstone of Lazurite; 2. A mineral, Lazurite. [Latin Lapis, stone + Medieval Latin Lazuli, genitive of Lazulum, Lapis Lazuli, from Arabic Lazaward, from Persian Lazhuward.]

Lapis Lazuli is a rock. The blue material that first strikes our eye is Lazurite. It is the midnight blue material and is sodium aluminum silicate. The next attractive material is metallic and looks very bright and shiny. It is Pyrite and the remaining white streaks are Calcite.

The most prized of this material is extremely dark blue in color, in fact, almost midnight black; is very hard and takes a very good polish; has very small amounts of pyrite and almost no calcite. This dark

blue of Lapis Lazuli is much more intense than Sodalite or Azurite and is much more valued.

Each of the lesser grades of Lapis Lazuli will have varying amounts of Pyrite and Calcite in each piece and can have varieties in color from light blue to the most vivid of blues.

The Chilean and Russian Lapis Lazuli is often lighter in color due to the higher content of calcite and results in a lower value. All material shows an amount of pyrite, but if too much is prevalent, then the stone can gain a green patina with age.

Lapis Lazuli

Formula:

$\text{Na}_8 (\text{Al}_6\text{Si}_6\text{O}_{24}) \text{S}_2$ Sodium Aluminum Silicate

Color: Blue

Hardness: 5-6

Specific Gravity: 2.4-2.9

Streak: Light Blue

Fracture: Conchoidal, Grainy

Localities:

Afghanistan: West Hindu Kush Mountains Russia:
Baikal Lake, southwest end of lake Chile: North of Santiago

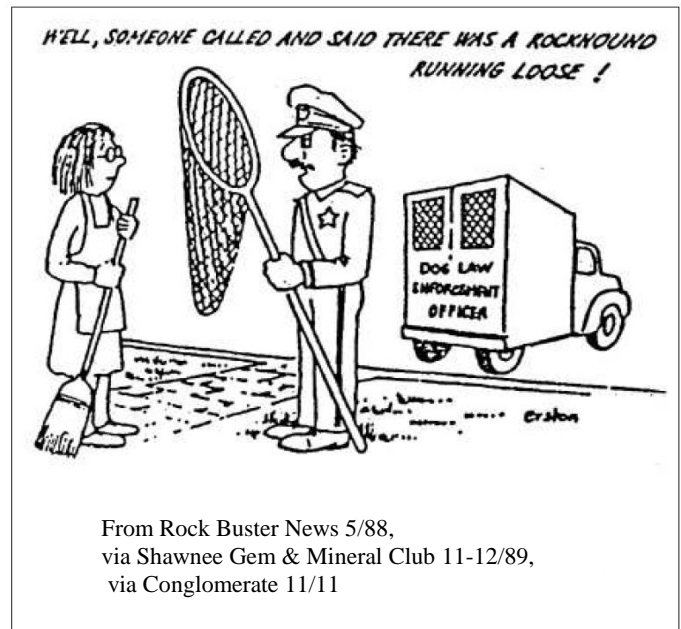
Lapidary Treatment

Use normal lapidary treatment through the number of grit sizes; however, use caution when going above 600 grit of heat buildup. Too much heat can cause the piece to fracture and/or shatter, so use caution. Lapis Lazuli can be used in any silver, gold, or platinum jewelry and will provide instant appeal in its contrast to the metal work.

Conclusion

I hope that you have now been introduced to Lapis Lazuli. 'Tis a stone through the ages and is fun to work with. I hope this will cause you to find the pieces you may have stashed away and to get them out and decide to work them into some super piece of jewelry. As you have noted here, it would undoubtedly draw much attention to you wherever you may wear or show it. So take that step right now, and I believe you will find it very enjoyable.

From Breccia 3/08, via The RockCollector 4/08
via Strata Gem 11/11



From Rock Buster News 5/88,
via Shawnee Gem & Mineral Club 11-12/89,
via Conglomerate 11/11

Geologic Wonders - The Devil's Slide



Devil's Slide, Utah.

Photo ©

www.wayfaring.com

The Devil's Slide is one of the more unusual natural formations along the wall of Weber Canyon, in Utah. There, two limestone layers, tilted to near vertical, rise 40 feet above the canyon wall with 25 feet separating them. Looking like a large playground slide fit only for the Devil, this site is a tilted remnant of sediments deposited in a sea that occupied Utah's distant geologic past. About 170 to 180 million years ago, a shallow sea originating from the north spread south and east over areas of what are now Montana, Wyoming, and Utah. This sea extend as far east as the present-day Colorado River and south into northern Arizona. Over millions of years, massive amounts of sediment accumulated and eventually formed layers of limestone and sandstone. In northern Utah, these rocks are known as the Twin Creeks Formation and are approximately 2700 feet thick. About 75 million years ago, folding and faulting during a mountain-building episode tilted the Twin Creek rock layers to a near-vertical position. Subsequent erosion of softer material has exposed the near vertical limestone layers and created Devil's Slide.

Information for this article came from: www.geology.utah.gov
Via Pick Hammer News 11/11

Stuffed Dinosaur for Dinner

I've often read about them
in books and magazines,
I've seen their bones and teeth displayed
On wide-angle movie screens.

The dinosaurs I came to know
Were lizards huge and mean;
With pea-sized brains and loping gait,
They weren't very keen.

These notions seem no more to be
The latest things to know;
Bob Bakker told it like it is,
On the late night Leno show.

I popped out of my bed to hear,
It's very rare, at best
To see a noted scientist
As a TV talk-show guest.

Old pictures melted in my mind
With every word he'd utter,
I didn't know just what to think,
My brain was all a flutter.

"Think of the dinosaurs," he said,
"More like the bird" - do tell!
"Like two-ton lively roadrunners,
Directly out of hell."

This on the night I'd polished off
Thanksgiving treats galore,
Never knowing the turkey on my plate
Was cousin to the dinosaur!"
Enjoy!

By Judy Washburn,

AFMS Poetry Contest 1st Place Winner 1993

From Loess Bulletin, via Tumbler 11/91 & Conglomerate 11/11

Ant Hills and Animal Burrows

One of the least known methods of finding mineral specimens is also one of the easiest, and many times the most productive. It consists of inspecting and testing the materials that ants and other animal life bring to the surface of the earth. Ants, gophers, prairie dogs, moles, etc., are very busy miners. They move a tremendous amount of dirt and rock to the surface. Some ants, for example, tunnel to the depth of fifteen feet, and a single ant nest can consist of a labyrinth of tunnels and passages and rooms spread over more than an acre. Some excellent gemstones have been found in anthills, especially red gemstones.

From The Leaverite News 10/10, via Pick Hammer News 11/11

Hints & Tips

Don't get lost! In an open space where the ground is level, drive a stake or stick into the ground. Mark the tip of the shadow that the stake casts with a small rock. Wait at least 10 minutes, then place another rock at the tip of the shadow. The line joining the two rocks will always run east/west no matter what time of day or year!

From The Prospector 8/84, via Pick Hammer News 11/11

Eleven Ways to Become a Fossil

Freezing - This rare creature has suffered a minimum of change. His arteries may still contain dried blood, his stomach undigested food. Most common is the Ice Age mammoth of Siberia and Alaska.

Drying or Desiccation - If these organisms were thoroughly dried, they can be of high quality. Best known are the camels and sloth found in our Southwest caves.

Wax and Asphalt - Natural paraffin makes an excellent preservative, as proved by specimens found in Polish mines. The most famous asphalt fossils are still embedded in the La Brea Tar Pits in California.

Simple Burial - English bogs are famous for their buried forest. Sand dollars, sea urchins, and mollusks have been preserved by this method for up to 75 million years.

Carbonization - Incomplete decay of volatile substances leaves carbon behind, sometimes reducing organisms to paper thin layers of shiny black film that reveal much detail.

Petrification - Our common stony fossils got that way by premineralization, the replacement of the structure by dissolved minerals, or secondary replacement, such as when lime fossils are dissolved and replaced by silica.

Molds and Casts - Natural molds in sediment remain after organisms decay. Sandstone beds reveal molds of shells and trees, and the finest molds are Northern European amber, which has perfectly preserved the forms of insects.

Imprints - Sandstone, shale and tuff reveal external molds of very thin objects such as leaves. Best known of these are the Illinois Coal Age plant imprints.

Tracks, Trails, Burrows - Dinosaur prints are the most famous of these. But Nebraska's "Devil's Corkscrew" once housed a beaver who dug an eight foot spiral hole.

Castings and Coprolites - Ancient worms swallowed sand to help digest small organisms. They regurgitated these casings. Coprolite is a polite word for petrified "dung."

Gastroliths - Many ancient reptiles ground their food with these stones (as do our modern fowl). The stones are rounded, smooth, and even polished at times. Also known as Gizzard Stones."

From Gems of the Rogue 7/11, via Rockhound Gazette 11/11



FROM UNDER THE ROCK PILE

By Vickie Hathaway

I guess we have all been to Topaz Mountain at least once in our rock collecting days, but did you know these facts about our Utah Topaz Mountain range?

Topaz--the word that brings to mind a beautiful sparkling gem transmitting rays of golden sunlight stored in the depths eons ago, a precious stone most people might dream about but few would ever hope to collect. Fortunately for those who are interested

TOPAZ in collecting topaz, that is not the case in Western Utah.

There are several localities where anyone who is willing to spend the time and effort can find sparkling crystals of this precious gem. People from all over the United States and many foreign countries visit every year. Besides topaz, red beryl, bixbyite, fluorite and an occasional garnet are also found here.

Among the collecting localities that exist the world over, there is only one that attracts more visitors than any of the others – it is the Topaz Mountain locality on the south end of the Thomas Range in the BLM Richfield District of Western Utah. Here even the beginning collector can find specimens of gem quality topaz. A few localities offer the collector an opportunity to collect a gem, but this one offers a bonus of specimens for the mineral collector.

Topaz was first discovered in the Topaz Mountain area in the late 1800's. The other minerals were discovered soon after that. Discoveries of red beryl and bixbyite were pioneered by Maynard Bixby, a Salt Lake City collector. His discovery of red beryl was the first time that mineral had been discovered with a red color, and his discovery of bixbyite was the first discovery of that mineral, which was later named for him.

Of all the minerals, topaz is the most sought after because of its size, beauty and gem quality. Topaz is an aluminum silicate fluoride hydroxide that crystalizes in the orthorhombic system. At Topaz Mountain, crystals up to two inches can be found, about 1/2 of which are of the crystal gem quality. They occur as singles or in clusters, loose or on matrix. Crystals to three inches have been found on the mining claim several miles north of Topaz Mountain.

Clear, gem quality crystals have an amber to dark sherry color. Unfortunately the color fades in the sunlight to colorless. In room light, the color will remain for several years.

To maintain the collecting area at Topaz Mountain, BLM has designated it a Rockhounding Area. Mining claim location and the use of power tools is prohibited. This area is readily accessible by paved road from Delta, Utah, but offers no water or other facilities.

Next trip to Topaz Mountain remember the other gems you might find while looking for topaz. Be sure if you go, take lots of water and snacks, and remember to always carry a bottle of water with you in your rock collecting bag. You will be sooooo glad that you did!

From Rock Chips 11/11 (Timpanogos Gem & Mineral Society)