

Obsidian

Adapted from material by Pete Modreski, Denver USGS

It's a common misconception that obsidian is a type of Silica glass. It is glass but it is not pure Silica Dioxide. It is usually Hyalite magma that is now a glass. It has become 'supercooled'; cooled below its normal crystallization temperature, but without any crystals forming. Its composition is the same as that of granite, so it only contains about 70% Silica Dioxide with small amounts of Al, Na, Ca, Fe, Mg, etc.

A common statement is that obsidian is glassy because it cooled very quickly, and we tell this to people so we can give a simple explanation, but in reality this is only partly true. Some obsidian deposits are rhyolite lava flows that are quite thick and there is no way that such a large mass of lava could really cool unusually quickly. The real reason it becomes obsidian is that the rhyolite magma that formed it was very dry—low in water content—because the presence of water facilitates crystal growth. The original rhyolite magma must have been completely liquid and contained no crystal nuclei. If there were any, they would have served as seed for further crystal growth and the rock would have become gray and opaque rather than completely glassy.

I'm sure that the brown color in mahogany obsidian is some form of iron oxide or hematite in very tiny particles. These seem to form along boundaries between flow layers in the obsidian, giving mahogany obsidian its typical banded/streaky appearance..

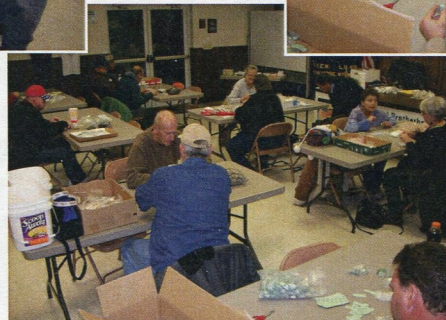
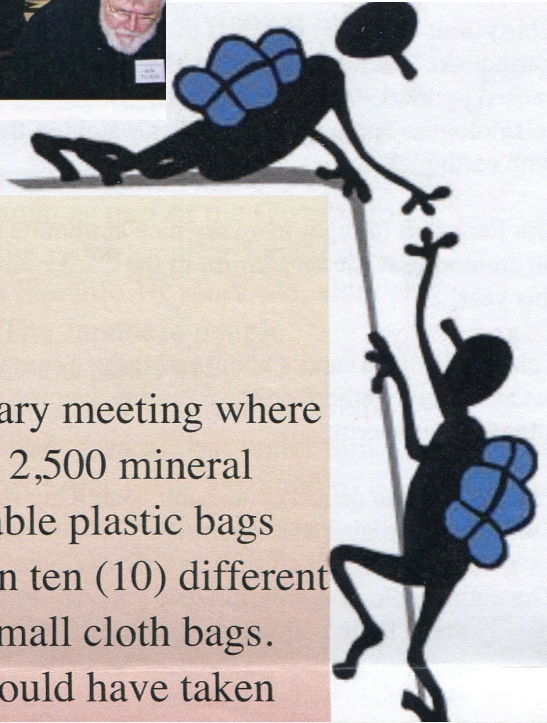
Cheyenne Club

Inspiration



Helping Hands....

These photos were taken at our January meeting where 22 club members and two guests put 2,500 mineral samples, one each, into small resealable plastic bags along with an identifying label. Then ten (10) different minerals were put into each of 250 small cloth bags. We did this in only 90 minutes. It would have taken



13TH ANNUAL CHEYENNE MINERAL, FOSSIL GEM & ROCK SHOW

AMERICAN LEGION Post #6
2001 E. Lincolnway, Cheyenne, WY



MAY 19-20, 2012

Sat. 9 am until 6 pm

Sun. 10 am until 4 pm

Admission: \$3

Children 12 and under FREE
if accompanied by an adult

EXHIBITS – JEWELRY – FOSSILS

PETRIFIED WOOD – GRAB BAGS

FLUORESCENT MINERALS – DEALERS

FACETING DEMONSTRATION

FREE GOLD PANNING – SILENT AUCTION



See Large Dinosaur Models
Bring your camera

FREE Mineral Coloring Books while supply lasts

Show information: Bob King (307) 632-2702

Hosted by the Cheyenne Mineral & Gem Society

CHANGE AVAILABLE IN 50¢ PIECES WHILE SUPPLY LASTS

This year, as in the past two years, the Cheyenne Mineral & Gem Society has given a \$1,000 to a University of Wyoming geology student who is a resident of Wyoming. This year's recipient is Evan Soderberg of Laramie. Evan was chosen by the geology faculty and received his \$1,000 check at the club's Christmas Party which was held December 10.

Our club now has a new club treasurer: Steve Bade, 2969 Kelley Drive, Cheyenne, WY 82001.

Bob King - Cheyenne

Riverton Mineral & Gem Society -- 2012 Field Trip Schedule

| <i>Date</i> | <i>Where</i> | <i>For</i> | <i>Leader</i> | <i>Vehicle</i> | <i>Comments</i> |
|--------------------|-----------------------------|---------------------------|----------------------------------|---------------------------|-------------------------------|
| April 7 | | | | | |
| April 14 | Agate Flats Jeffery City | Sweetwater Agates | Linda Richendifer 856-1532 | Any | Surface to shallow digging |
| April 21 | Boysen Dam | Banded Iron | Bob Carlson 851-6781 | Any | Surface to shallow digging |
| April 28 | | | | | |
| May 5 | Bird's Eye Pass | Chert | Richard Rogers 856-7224 | Any | Surface to hard rock |
| May 12 & 13 | Blue Forest | Wood & other | Louie Gillette 332-5642 | Med. To high clearance | Surface to deep digging |
| May 19 | Cheyenne | Rock | Show | | |
| May 26 | Eden Valley | Wood & other | Linda Richendifer 856-1532 | Med. To high clearance | Surface to med. digging |
| June 2 | South Pass | Garnets | Glenn Laidlaw 856-6714 | Med. To high clearance | Surface to med. digging |
| June 9 & 10 | State Rock | Show in | Torrington | | |
| June 16 | Ice Slough | Jade & Agate | Tom Dewey 332-1585 | High- 4X4 Best | Surface to some digging |
| June 23 & 24 | Casper Rock | Show | | | |
| June 30 | Carissa Mine Tour | Gold Mine – South Pass | LaRue Brown | Any | None |
| July 7 | | | | | |
| July 14 | Day In The | Park - Riverton | | | |
| July 21 | Beaver Rim | Common Opal | LaRue Brown | High to 4X4 | Surface to shallow |
| July 28 | Lysite | Lysite Agate | Bob Carlson 851-6781 | High to 4X4 | Surface to hard rock |
| August 4 | | | | | |
| August 11 & 12 | Delany Rim | Turritella & agate | Louie Gillette 332-5642 | Med. To high clearance | Surface to shallow digging |
| August 18 | | | | | |
| August 25 | ??So.Pass | Gold? | Holly? | | |
| September 1 | | | | | |
| September 8 | Club picnic | | | | |
| Sept 8 & 9 | GPAA Fall | Gold & | Treasure Show | In Casper | |

Field trip participants will meet at the Riverton Wal-Mart parking lot (NW corner) at 7:30 am. Call the trip leader to let them know you will be coming.
Bring water, lunch and appropriate clothing for Wyoming weather and terrain. Have a full gas tank and a serviceable spare tire.

Historian

Richard Heumier

I have been making slow progress on the State Club Directory. It takes quite a bit of time in research for each year's directory. Along with State Officers, I am getting each club's officers, the State Show-person(s), location of the Show, and the State Delegates. Does not sound like much, except when there are NO reports from the clubs to get any info from. This does not apply to the Shoshone Rock Club, as they steadily give out their reports; thanks again to Linna Beebe.

I have finished with the State Show Manuals and will be handing out the last one to Riverton, the State Show host in 2013. Incidentally, it will be their 75th year as a club. They became a club and a member of the Wyoming State Mineral and Gem Society in 1938. They also helped start the State organization. Way to go Riverton.

Rockhound of the Year nominations have been made and the 2012 selection will be made by Wayne Sutherland (and friends?) of the Wyoming State Geological Service. Through the years Wayne and the WSGS have supported the Wyoming rock clubs in many ways. Their help and friendship is always appreciated.

Hey people, anyone interested in being the Jade State News Editor? The Cases are resigning and moving. They will be greatly missed by the Riverton club as members, by the State organization as State Officers, and as friends by all who know them. I am sure they will check in from time to time with everyone. Gene Case, JSN Editor, produced one of the best rock newsletters in our state. Connie Case, State President, accomplished a lot in her three years in office, bringing the State organization back up and running. Thank you, Gene and Connie.

Respectfully, Richard

WSMGS Board Field Trip April 28

The WSMGS Board is sponsoring a field trip to the Yellowbrick Road Dinosaur Track site located between Greybull and Shell, WY. This is a private site which was apparently a feeding area as there are many dinosaur tracks to see. The owners will provide a lecture and guidance to the site. This is a walking trip, so be prepared to walk over half a mile, some uphill. There are out-houses at the parking area. As with any field trip, bring appropriate clothing, water and lunch.

DIRECTIONS: Meet at 10AM, April 28 on Highway 14 between Greybull and Shell, WY. We will meet at the Red Gulch Road sign which is nearly to Shell if you are coming from Greybull. The Red Gulch Road sign is a large sign on the right side of the road.

—-WARNING—- If it rains, the road is impassable and we won't be able to get to the site!

The owners of this site are not charging us for this tour, but they are hoping to develop the site over the next couple of years, so they would likely appreciate donations if you feel like donating to help them with costs.

If you have questions, call Gene Case @ 307-857-6173 or Mary Ann Northrup @ 307-754-4472



Wyoming State Mineral and Gem Society



2012 State Rock Show

Sponsored by the Rex Young Rock Club

Wyoming Ocean of Treasures

June 9, 2012 9am to 6pm

June 10, 2012 10am to 4pm

Admission: Adults \$2.00 per day

Goshen County Fairgrounds in the Rendezvous Center

Hwy 26/85, Torrington, WY

For info contact Dale Tikalsky (308) 631-7814

12" Rock Saw For Sale

Lortone Model LS12 Slab Saw

Purchased new from Eloxite in 2008, lightly used

\$800

Includes Gator Jaw & one gallon of oil

Current Eloxite price is \$1300

Gene Case

857-6173

thecases@bresnan.net



Club News

CODY 59ERS ROCK CLUB

-2012 Officers for 2012 are:

President-Jim Ulmer
Vice President-Corinna Lineback
Secretary-Beth Spears
Treasurer-Brad Miller

-2012 Committee Positions:

Calling/Advertising Meetings- Stan Strike
Historian-Jackie Platt
Membership Yearbook-Stan Strike
Sunshine Lady-Jackie Platt



Cody/Powell Club members at Greybull Geo-Science Center



Gar fish scales at Greybull Geo-Science Center

Shoshone Rock Club —Powell

January 2012 — The club attended a field trip arranged by the Cody 59'ers at the Geo-Science Center in Greybull (Saturday, Jan 28th). The new center is next to the Probst Western Store. The speaker, Cliff Manuel, was on hand for a program and about talk about the displays. The club Historian report for 2011 was read to the members and will be mailed to the State Historian, Richard Heumier. Members were asked to bring in items for a Curiosity Corner/Show and Tell for the program this month. Some of the items on display were: polished septarian nodule with an ammonite included, brain coral, picture rock, Lysite agate, polished Woodworthia slab, opalized petrified wood, onyx candle stick, trilobite cast, and many more agates and crystals. Lynn and Jane Neale provided the refreshments for the fun evening. (Please see photo attachment sent separately.

February 2012 — We had a great meeting this month with Ned Kelley presenting his slide program on limb casts found on Carter Mountain and show and tell items of limb casts he and other club members have brought in.

The Powell Library has a new "Smart Board" and this was the first time I had seen it used. It is a great invention, which Ned used to display he and his wife, Lynettes, beautiful images around Carter Mountain. Ned used his lap top computer which was hooked up to the "Smart Board" and photos, videos, etc. are easily seen on the board which expands the computer photo images to about 4 feet by 4 feet or so with no distortion. The images were beautiful and clear as a bell. Ned says he and Lynette walked about 350 miles or so last year exploring the country, taking photos and adding to their rock collection. The Carter Mountain scenery was so majestic, you want to see it for yourself, but hearing how they could see as many as 13 grizzly bears in a day while out walking, makes the trek sound a bit scary. Ned mentioned that some agency was photographing this area from a plane one day and 68 grizzly bears were counted. He talked about areas with 1,000 to 2,000 foot drop-offs and the views seen which covered miles.

Oh, to be young again and walk with them four or five miles with rocks in a back pack and in your arms, and also carrying some so far, then dropping them down, and hopscotching back to bring one more you could not leave behind. It pays to be fairly young and healthy or persistent and patient. Most of the limb casts were very fragile due to their exposure to freezing and thawing at the high elevation of Carter Mountain. Many of the limb casts contain common opal which is very susceptible to freezing and thawing and would crumble with little resistance.

— Linna Beebe

Gold

Material provided by Richard Heumier

The chemical symbol for gold is Au, from the Latin word aurum meaning “shining dawn and from the Roman goddess of the dawn, Aurora. In 50 BC, Romans began issuing coins called *Aureus* and the smaller *Solidus*.

Gold is so rare that the world pours more steel in an hour than it has poured gold since the beginning of recorded history.

Gold has been found on every continent on earth.

75% of all gold in circulation has been extracted since 1910. However, it is thought that 80% of the world’s gold is still in the ground.

Gold is so pliable that it can be made into sewing thread. An ounce of gold can be stretched over 50 miles.

The largest gold nugget ever found is the ‘Welcome Stranger’ nugget discovered in Australia on February 5, 1869. It is 10 inches by 25 inches and yielded 2248 ounces of pure gold. It was found just two inches below the ground surface.

Gold is chemically inert, which explains why it never rusts and does not cause skin irritation.

The Olympic gold medals awarded in 1912 were made entirely of gold. Currently gold medals just must be covered with 6 grams of gold.

In 560 BC, the Lydians introduced the first gold coin which was actually a naturally occurring amalgam of gold and silver called *electrum*. The Lydians were the first to open permanent retail shops. When the Lydians were captured by the Persians the use of gold coins spread.

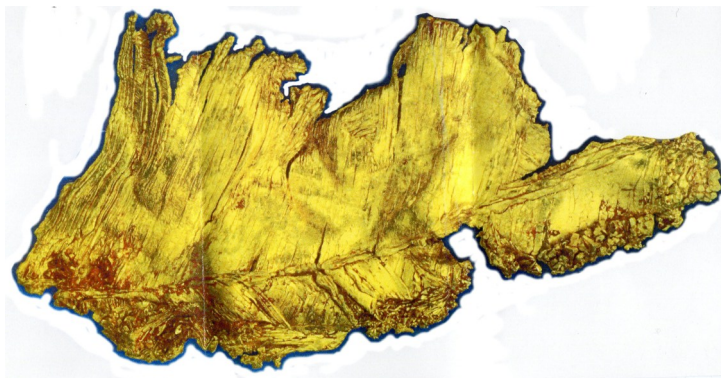
The Greeks thought that gold was a dense combination of water and sunlight.

Gold and copper were the first metals to be discovered by humans around 5000 BC.

The ‘troy ounce’ of gold comes from the French town of Troyes, which first created a system of weights in the Middle Ages used for precious metals and gems. One troy ounce is 480 grains. A grain is exactly 64.79892 mg.



Nugget from Santa Cruz County, Arizona



This gold leaf was mined in the early 1900s at the Red Ledge mine in Sierra County Arizona