



Smoke Signals



Gem & Mineral Club

June 2011

Club Activities –

JUNE 25TH: OUR 2ND ANNUAL SUMMER ROCK SWAP (OUTDOOR ROCK SHOW) BLACK HAWK GEM AND MINERAL CLUB, Black Hawk State Park, Rock Island, IL Sat. 10 a.m.- 4 p.m.

If you wish to sell: \$20 to sell at this show. This is an outdoor show so unfortunately that means no electricity. You will also have to provide your own tables – or sell out of the back of your truck.

Upcoming Events:

June 10-12: 14th Annual Missouri Mines Rock Swap, Located at the Missouri Mines State Historic Site, Park Hills MO 63601, South Side of Hwy 32, 1.5 miles west of US Hwy 67. Fri and Sat 9-6, Sun 9-4, Swap – Sell – Buy. For More Information Contact: Missouri Mines State Historic Site P.O. Box 492, Park Hills, MO 63601, 573-431-6226 or call Boneta Hensley at 573-760-0488 (Craig and I will be going to this one)

June 24,25,26, 2011 Bloomington, IN 46th Annual Gem- Mineral- Fossil Show – Swap. Sponsored by Lawrence County Rock Club, Inc. Free Demonstrations Held at Monroe County Fairgrounds, West of Bloomington, IN. Friday 10-6:30, Saturday 9-6:30, Sunday 10-4. Directions: From the Junction of IN 37 and IN 45S, go south on IN 45S for 1.2miles, turn right (west) on Airport Rd for .7miles. Fairgrounds are located on the right. For additional info: 812-295-3463 or 812-247-3780. Website: www.lawrencecountyrockclub.org

JUNE 25TH: OUR 2ND ANNUAL SUMMER ROCK SWAP (OUTDOOR ROCK SHOW) BLACK HAWK GEM AND MINERAL CLUB, Black Hawk State Park, Rock Island, IL Sat. 10 a.m.- 4 p.m. Buy, Sell, or Trade. The show will feature rocks, minerals, fossils, agates, geodes, tumbled stones, beads, silver and beaded jewelry, carved stones, spheres, arrowheads and much more. Admission is free to the public. For information call Craig or Kellie at (563) 445-3034.

Tent Rocks: Natural Wonder

Kasha-Katuwe Tent Rocks National Monument
The tent rocks were a little known Bureau of Land Management site before their elevation to national monument status in January 2001, but now the area has improved access and facilities, and sees a steady stream of visitors. Kasha-Katuwe is a Keresan phrase meaning 'white cliffs', Keres being the traditional language of the pueblo tribes of northern New Mexico. The teepee-like formations cover a small area but are quite remarkable, unique in the Southwest - hundreds of white, pinkish or grey spires, sharply conical in shape, lacking any covering vegetation, that occur in several groups on the east side of Peralta Canyon, on the Pajarito Plateau 40 miles west of Santa Fe.



The cone-shaped tent rock formations are the products of volcanic eruptions that occurred 6 to 7 million years ago and left pumice, ash and tuff deposits over 1,000 feet thick. Tremendous explosions from the Jemez volcanic field spewed pyroclasts (rock fragments), while searing hot gases blasted down slopes in an incandescent avalanche called a "pyroclastic flow." In close inspections of the arroyos, visitors will discover small, rounded, translucent obsidian (volcanic glass) fragments created by rapid cooling but collecting is not permitted. Precariously perched on many of the tapering hoodoos are boulder caps that protect the softer pumice and tuff below. Some tents have lost their hard, resistant cap-rocks and are disintegrating. While fairly uniform in shape, the tent rock formations vary in height from a few feet to 90 feet. (Source: http://www.blm.gov/nm/st/en/prog/recreation/rio_puerco/kasha_katuwe_tent_rocks.html) Via Central Iowa Mineral Society Volume 62 Number 4, April 2011

Pyrite Cubes

By Ed Peterson

Several years ago I bought a group of cubic pyrite crystals from a rather small dealer's stand (see the accompanying picture). The price was minimal. The individual crystals are roughly 5/8" on aside. The crystals are from Ampliación, a Victoria Mine, Navajun, La Rioja, Spain, an area known for its large, striking, "most perfect," pyrite crystals. They are also somewhat unique in that only faint striations are visible on the crystal surfaces. The crystals from this mine are known throughout the world for their beauty, the specular brightness of their faces, the complexity of combinations of crystals and their brass yellow color.



Ed's Pyrite cubes showing crystal intersections. The white marl matrix has been removed.

The mine that they're from has an interesting history. A miner, Pedro Ansorena Garret, in the 1960's discovered this deposit in a remote corner of La Rioja. His son now operates the mine, conducts tours, tells about the history, and arranges for collectors to dig through the matrix. The mine is located in a rather arid area not far from the Alcarama Mountains. It's an area with some farming and cattle raising and a few villagers. Historically, inhabitants were attracted to the metallic stones found there. Pyrite pieces

are found in mosaics in a nearby city. Stories of the past, told by residents of the area, say that witches recommended the pyrite to cure throat and stomach aches. Crystals were called "pins" and "tanagos" and were used to bring rain. Women threw them over their shoulders to attract men. Shepherds used the sharp crystals in sling shots to kill wild animals.

Pedro, a trained miner and mineralogist for the Royal Asturian Mine Company, was looking for galena when he heard about the spectacular pyrite crystals. He knew the pyrite was an iron sulfide mineral and had little commercial value as a metal, but recognized that the crystals would be valued to collectors. Pedro's son now attends and sells the amazing crystals at shows throughout the world, including the show at Tucson. Larger crystals sell for up to \$400-\$500. Three veins in this mine, together, average about 2.5 meters in thickness. There is an estimated one million tons of pyrite and marl making up the veins. Roughly 30-35 tons of the material are excavated each year.

Via Central Iowa Mineral Society Volume 62
Number 4, April 2011



Photo via <http://www.gemstoneslist.com/pyrite.html>

Dinosaur Eggs (and ham?)

by Tom Williams

Tom Williams visited the SciTech Hands on Museum at Aurora, IL, and saw an exhibit called "Hatching the Past." It was about dinosaur eggs and babies. He took the following pictures.



Oviraptor nest



Sauropod egg from India



Egg with fossilized yolk



Hadrosaur nest

Via May 2011, Volume XXV, No. 5 LOESS
Bulletin

Huge Gold Nugget Found

As published in the Press-Telegram, Long Beach, California, January 9, 2011; submitted by Martin Dougherty, Long Beach Mineral and Gem Society.



This undated photo provided by Holabird-Kagin Americana, shows a 100-ounce gold nugget found near Nevada City, Calif. (AP Photo/Holabird-Kagin Americana)

Some 150 years after the forty-niners rushed west in search of riches, a new gold discovery in the Sierra.

A 100-ounce nugget, found by a man last year on his property near Nevada City, Calif., is expected to fetch between \$225,000 and \$400,000 when it goes up for auction March 15 in Sacramento, Calif.

Fred Holabird, a mining geologist whose Renobased company is one of the country's largest sellers of Western Americana and is handling its sale, thinks it's the largest California gold nugget left in existence.

Virtually all of California's gold fields have been thoroughly combed by miners, he said, and other monster nuggets from the Golden State have been melted into ingots for money.

While bigger nuggets have surfaced in Australia in recent decades, no similar-sized placer nuggets from California have turned up in museums, he added.

The Smithsonian Institution's largest placer nugget from California weighs about 80 ounces.

"The chances of finding something like this

anymore are beyond remote. It could be one in a trillion," Holabird said.

The man was using a metal detector in an unmined ancient stream bed near the old Mother Lode mining camp of Washington when he stumbled on the nugget in February 2010.

The Union of Grass Valley, Calif., has identified him as San Francisco businessman Jim Sanders.

The so-called Washington Nugget is thick and oblong, and resembles a "squished loaf of bread," Holabird said, adding it was found in the same area where hydraulic mining was invented in the 19th century. A lack of records makes it difficult to determine how the nugget compares in size historically, said John Clinkenbeard, senior geologist with the California Geological Survey in Sacramento.

But he said he's unaware of any similar 100-ounce placer nugget being found in California in recent decades.

"I can't put a numerical value on how rare it is to find a nugget like this," Clinkenbeard said. "All I know is that large nuggets are very rare and your odds of finding one aren't very good."

The largest known nugget found in California weighed 54 pounds and was found in 1859 in Butte County, he added.

The California State Mining and Mineral Museum in Mariposa, Calif., displays the Fricot "Nugget," a rare 13.8-pound specimen of crystallized gold discovered in the American River in 1864.

But Clinkenbeard and Holabird said there's a difference between Mariposa's crystalline gold specimen and the placer nugget found last year.

True nuggets such as the latter are a product of erosion in a modern or ancient streambed, while the former consists of native gold in quartz that has not gone through the same erosional process.

While current gold prices would make the Washington Nugget worth roughly \$130,000,

Holabird expects a collector to pay well more because of its historical value. Gold closed at \$1,368.90 an ounce Friday.

"It's worth more as a collectible," he said. "No one will be melting this thing. It's one of the most important California gold artifacts that exist."

Washington Gold Nugget Found Sells for \$460k at Auction to Secret Buyer

Published at

[http://www.gather.com/viewArticle.action?](http://www.gather.com/viewArticle.action?articleId=281474979147470)

[articleId=281474979147470](http://www.gather.com/viewArticle.action?articleId=281474979147470) and contributed by

Martin Dougherty, Long Beach Mineral and Gem Society March 18, 2011 06:00 PM EDT

by Brad Bechler

A Washington gold nugget weighing seven pounds sold at an auction for \$460,000. The anonymous seller was happy to get rid of the rare find that would have gone to a museum if not sold to the highest bidder.

It was a find that will go in the gold annals as one of the largest intact nuggets ever found. The find and final auction price will no doubt spawn another "California Gold Rush" not seen since the 1800s.

It was a whopping discovery, and the finder was not expecting a Washington gold nugget as large as his monumental metal. He did and immediately realized that people will come knocking on his door looking for the treasure possibly accompanied by Messrs. Smith & Wesson.

An auction or donation was the most logical thing to do for safety. But the drive for a little cash was not a bad idea.

The monster rock weighed in at 100 troy ounces (seven pounds), and according to experts, would fetch about \$100,000 in today's gold prices. After a careful inspection, however, it was clear the amount would go higher.

When the auction opened at \$250,000, it quickly escalated to \$375,000, and it was clear the rare Washington gold nugget would fetch more. It did, and Spectrum Numismatics of Southern California won the prize at \$460,000 on behalf of a "secret bidder."

As fast as the action began, it was over, and people were making a beeline to the exit, no doubt

headed to dust off their old shovels to claim their share of "gold in them thar hills."

Via MWF News May 2011, Issue No. 502

More Bench Tips by Brad Smith

MAGNETIC HOLDER FOR FILES

An easy way to keep all your files organized at the bench is to use a magnetic tool strip. They're not expensive and help keep a lot of small tools from cluttering the bench top. I got a couple of them

from Harbor Freight for about \$5 each. See

<http://www.harborfreight.com/18-inch-magnetic-holder-65489.html>

Only regret was putting some of my small drills on the magnets. The drills got a little magnetized and now stick together when I carry them in a bottle in my tool box.

FINISHING PIERCED PATTERNS

After sawing patterns there's always a little cleanup to do. Needle files (7-8 inches) can get into the larger areas, and escapement files (4 inches) can get into some of the corners. But I often find myself looking for even smaller files. Couldn't even find them at a watchmaker tools supply company, so I had to try something else. I ended up grinding down the tip of a 4" barrette file using a separating disk (or cutoff wheel) in your Dremel or Foredom.

The wheels are inexpensive and do a great job grinding steel (poor at soft metals like silver). The disks have other uses like modifying pliers and making design stamps. My preference is the one inch diameter ones as shown at

<http://www.ottofrei.com/store/product.php?productid=3919&cat=3439&page=1>

Be sure to hold the wheel firmly so nothing moves to break the disk, and definitely wear your safety glasses. A flake of steel in your eye makes for a bad day.

More Bench tips continued on next page....

More BenchTips by Brad Smith

TOOTHPICKS

The round, stronger toothpicks have a multitude of uses on the jewelry bench. I use them for mixing epoxy resin, for applying paste solder, with Zam for polishing in tight spots, and with a bit of beeswax for picking up and positioning small stones. They're particularly good for testing the fit of a small faceted stone in a prong or tube set finding.

PUMICE WHEELS

Pumice wheels are good for touching up a bezel after you've set the stone. The hardness is about 6 on the Moh's scale, less hard than quartz, so it shouldn't scratch any of your jaspers. However, I'd avoid or be real careful of using pumice near the softer stones like turquoise, amber, howelite, etc. If you're unsure that a wheel is pumice, test it with a piece of glass. Glass is about 5 ½ on the Mohs scale. If it doesn't scratch glass, it shouldn't scratch quartz.

MAGNETIC PIN FINISHER

There is a good article about making your own magnetic tumbler at <http://www.rchristopher.com/tech/tumbler.html>

The person reporting this on the YahooGroups Jewelry Casting list says he's made two units from these plans and they work very well. In addition to the primary job of burnishing and polishing finished pieces, he also uses the units for cleaning investment from castings.

The stainless steel pins are available from either Gesswein or Rio Grande.

Acknowledgement to be included with each publication:

More BenchTips by Brad Smith are at
groups.yahoo.com/group/BenchTips/
or
facebook.com/BenchTips

Aragonite

Calcite is a common mineral with composition calcium carbonate. Its most common crystalline structure is trigonal. However, calcite is deposited in many environments, and can take other crystal structures, including microcrystalline formations. Orthorhombic calcite is known as Aragonite and may form in evaporative, hot springs and sedimentary environments. The presence of other metals can give aragonite colors ranging from white to brown and nearly every color in between. The crystals range from opaque to clear and can show a wide range of crystal species.

Aragonite is unstable at surface temperatures and will gradually revert to calcite, producing calcite pseudomorphs (same chemical composition but different crystal structure) of the original aragonite crystals. Likewise, the aragonite in fossil shells will alter to calcite on a scale of ten million years. Both aragonite and calcite will react strongly to acids, but the hardness and density of aragonite is quite different than calcite (denser and harder). Aragonite is the most common crystal structure of cave and flow stones such as stalagmites. The photo shows a radiating species of aragonite from underground mines at Bisbee, AZ. (photos taken at the Arizona Mineral Museum, Tucson, by C. Safris)



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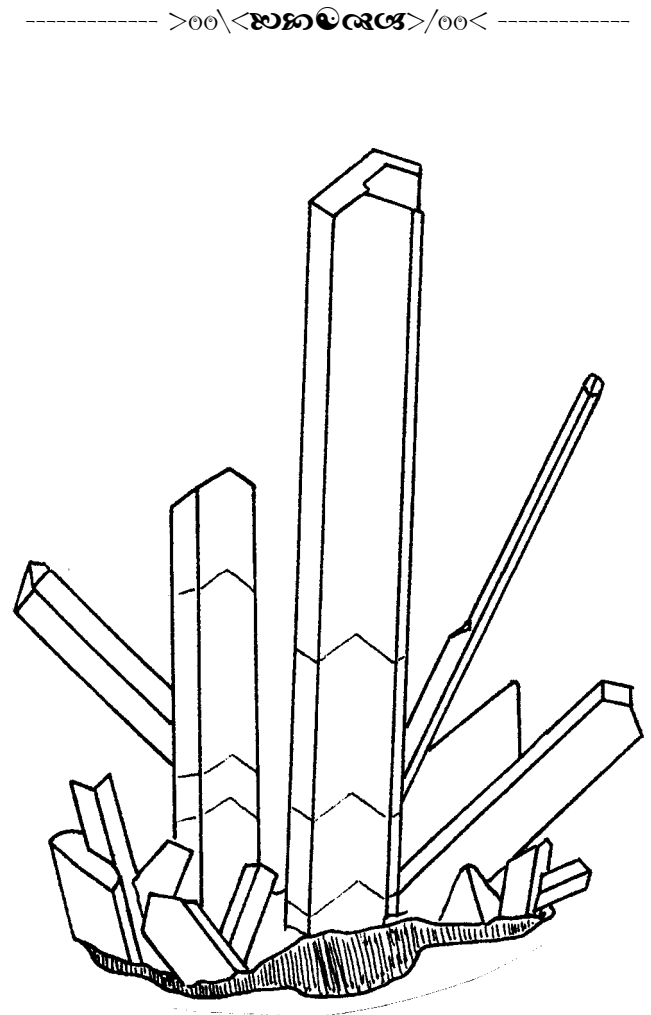
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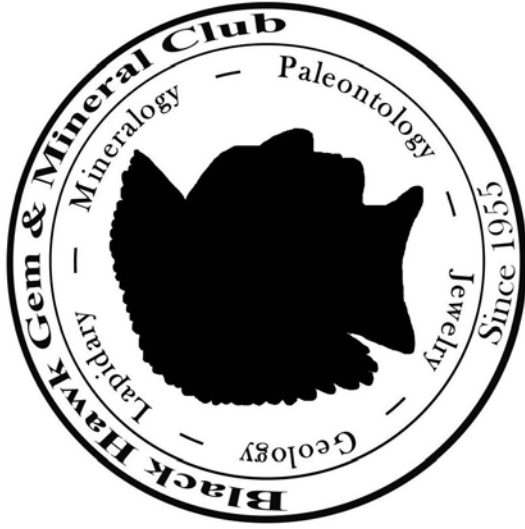
The purpose of this non-profit organization is to promote interest in collecting, studying and working with gems and minerals and fossils. Organized in 1955, the Black Hawk Club joined the Midwest Federation of Mineralogical & Geological Societies in 1959. It is also a member of the American Federation of Mineralogical Societies. Meetings are held on the third Tuesday of every month, September through May at 6:00P.M. in the Hauberg Civic Center, 1300 24th Street, Rock Island, IL. Picnics are held at various locations during June, July, and August. Annual Dues: Individual Membership: \$15.00, Senior Couples: \$12.00, Senior Individual: \$10.00, Family: \$20.00.

Contributions: Submissions (announcements, photographs, notes, letters, articles, etc.) are actively solicited from BHGMC members. Copyrighted material submitted for publication must be accompanied by a written release from the copyright holder. All material submitted is subject to editing. Unless previously arranged, all submissions become property of the Black Hawk Gem & Mineral Club, Inc. When requested, original and personally-written articles will be published with a copyright notice in the author's name, otherwise all submissions will be published without individual copyright. No anonymous submissions will be considered; however, the submitter's name will be withheld or a pseudonym may be used at the submitter's request. The deadline for all submitted work is the 20th of the month before it is to be published. Late and/or unused entries may be published in later issue.

Editor: Kellie Moore 718 Franklin Ave, Davenport, IA 52806.



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**Blackhawk Gem & Mineral Club
Kellie Moore
718 Franklin Ave
Davenport, IA 52806**