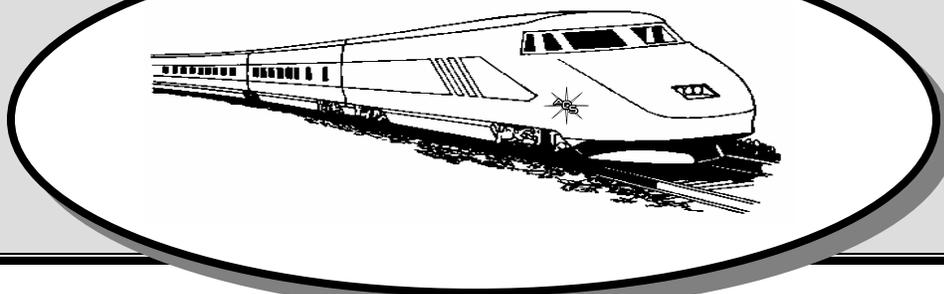


# The Opal Express

Published  
monthly by  
The  
American  
Opal  
Society



March 2006

Volume 39 Issue 3

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## Members Only Website Password

To log onto the website's members only area at:  
[http://opalsociety.org/aos\\_members\\_only\\_area.htm](http://opalsociety.org/aos_members_only_area.htm) type: Name:  
"member" and Password: "opalcanyon".

## Opal Society Workshop

The American Opal Society's workshop is open at Ball Jr. High School every Monday from 7:00 to 9:30 p.m. The school is located at 1500 W. Ball Road in Anaheim. This is between Euclid Ave. and Harbor Blvd. If you are traveling east on Ball Rd. the parking lot entrance you need to use is just before the railroad tracks. If you are traveling west, the lot is just after the railroad tracks. Room 37 is in the center of the campus.

Instruction will be given in cutting opal, wax models, lost-wax casting, fabrication, and setting stones. The workshop will furnish machines to cut and polish stones as well as a centrifuge for casting and a kiln for burnout. You will need to furnish other equipment you wish to use. Please bring a roll of PAPER TOWELS with you for clean-up as the room is a science lab and needs to be kept spotless.

To attend, membership in the American Opal Society is a must due to insurance. A nightly fee of \$2 is asked to help keep the equipment in good running condition.

Our thanks to Pete Goetz and the Anaheim Union High School District for the use of this classroom for our workshop!

## Famous Opals: The Butterfly Stone (The Red Admiral)

The 'Red Admiral' or 'Butterfly Stone' was discovered during World War I on the 'Phone Line' field. Reported to be 51 carats, the

stone is of extraordinary beauty, with a predominant red pattern equally visible from all angles. It wasn't until 1920 that the stone was given the name "Butterfly" because of its resemblance to the British butterfly, the Red Admiral.

Len Cram says of this stone, "If you turn this magnificent gem on its side it changes from a butterfly to a full-length picture of a Spanish dancer in traditional broad ruffled dress, perfect in pose and movement, aflame with fiery lights."

It passed through a number of hands, including Percy Marks and a Queensland grazier, before being purchased by the late Mrs Drysdale of Sydney. As of 2004, it was back in the care of Percy Marks & Co.

From <http://www.opalsdownunder.com.au>



The Butterfly Stone

**March Guest Speaker:  
Jochen Knigge on Brazilian Opal**

Jochen Knigge, will present his film about Brazilian opal at the March General Meeting.

Jochen has recently joined the society and is visiting the USA from Germany and has had extensive experience in Brazil with the opal mines, which are enjoying some resurrection. After presenting his film, he will answer any questions we have on Brazilian opal and will have opal for sale. His film on DVD will also be for sale for \$7.

The presentation will begin at 7:00 pm sharp. On March 9<sup>th</sup> at the Garden Grove Civic Women's Club on 9501 Chapman Ave. in Garden Grove, CA. See the front cover for a map.

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**Field Trip Report: Opal Canyon**

*By Russ Madsen*



Red Rock Canyon State Park from Highway CA14, where road to Opal Canyon is located at.

We had a good time out at the canyon on Feb. 18<sup>th</sup>. This was my first time digging at the Barnett Opal Mine since Richard Barnett passed away and I gave the talk about his involvement with opal at the funeral. I've been out to look at things in the past but didn't have the heart to dig until now.

The canyon has changed a fair amount. All, and I mean ALL, of Richard's stuff has been removed. No trailers, no picnic tables, no outhouses, no utility building, no backhoe, nothing. There are clear signs indicating the places to turn except the hard left at the ironwood and the final left into the opal deposit.

Jim found the first color play. Vicki ponked (rockhound tech



Russ and Vicki digging at the Barnett Opal Mine, which is the whole side of the hill.

term) her first opal rock. Didn't find any good opals in it but she made it into a goodly pile of gravel. All told, I only found a few indicator stones in the hole I was digging. One small water clear stone I got near the end of the day has good potential. To show Vicki the 'easy' way we strolled around on the hillside a while and I picked up a few example rocks for her. One has several tiny opals with nice color play and a bigger stone in the middle of them that should be good. There were six people out total: Jim Pisani, Ed Zutaut, Corey and Leona Kuepper, Vicki and myself.

While it was fairly chilly all day yesterday, the sun was mostly shining with a few random clouds from time to time. The others went home in the late afternoon while Vicki and I stayed over and camped. This morning dawned very overcast, drizzling with occasional snow flakes. We decided to head out because wet and cloudy are not conducive to finding opal. Also didn't want any surprises with driving out in the rain.

After the left turn at the ironwood tree in the wash the road was much sandier than in the past. I was glad we had 4WD engaged for that section.

We are talking about calendaring a single day outing during April. We will publish a good map and route descriptions then. That's all for now.

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**February Guest Speaker Report:  
Noel Lamkin Returns**

*By Russ Madsen*

We enjoyed another talk by Noel Lamkin at the February general meeting. About 30 members and guests were on hand to enjoy Noel's casual presentation. We got to see many wonderful examples of Noel's very creative approach to jewelry and design. She shared that she got her start in the jewelry arts as a student in high school wood shop followed by college where she majored in fashion design.

Noel works in various media, mostly silver with leather, fabric and wood. She has

also done some pieces in ceramics and porcelain.

Noel offered a variety of hints and tips during the evening's presentation, all the while passing around examples from her collection of 'keepers'.

**Highlights:**

- It is generally helpful to think in terms of transferable skills. If you like an item in ceramic but your focus is on metalsmithing, think about how to use your skills to create something similar to the appealing ceramic piece.
- Don't be afraid to use someone else's creation as a starting point. Remember the saying; imitation is the sincerest form of flattery.
- If you fall in love with something you have created, KEEP IT!
- Pearls...a good strand of pearls will not have a bead cap. Better quality strands always have a clasp. One can increase the value of an average strand by re-stringing it properly.
- Finally, Noel related her first experience attending a meeting of the Opal Society. She had come into possession of a very nice piece of Virgin Valley opal the size of a small walnut set in stainless steel. At that meeting the stone was evaluated at \$35,000.00. Wow!

Noel...thanks again for another wonderful talk!!

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**Opal Fakes**

*Here's a good thread from the Orchid Forum on Ganoksin.com. The Editor*

From: Noel Yovovich

I am posting this from work, rather than my usual (home) email, because I'm working on an article entitled "All About Opals" for

(probably) the January issue of Art Jewelry. I would like to include a sidebar on how to spot a fake or a synthetic opal, but have not been able to find anything on it, other than the suggestion that if a pair matches too well, they may be man-made.

If anyone can help me out, or wants to pass on anything not widely known that really should be included, please pass it on. If it is not likely to be of universal interest, please email me off-forum at noelyovo@yahoo.com. Thanks!

Noel  
Noel Yovovich Associate Editor Art Jewelry Magazine 21027  
Crossroads Circle P.O. Box 1612 Waukesha, WI 53187

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From: Greg DeMark  
Noel,  
Synthetic Opal can exhibit a honeycomb effect when viewed under magnification.  
Greg DeMark email: [greg@demarkjewelry.com](mailto:greg@demarkjewelry.com)  
Website: [www.demarkjewelry.com](http://www.demarkjewelry.com)  
Custom Jewelry - Handmade Jewelry - Antique Jewelry

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From: The Doctor  
Noel, since synthetic opals are chemically physically and optically the same as natural opal, it can be difficult to separate them. Specific gravity, refractive index, fracture, hardness, etc., are all the same as natural opal. The most prominent giveaway for synthetic (Gilson) opal is viewed under magnification, and is usually referred to as the "snakeskin," "scale-like," or "honeycomb" effect. Under the microscope, synthetics have a typical honeycomb look within individual patches of color. It also tends to have a columnar structure when viewed from the side. I believe I have some good examples to photograph for you if you'd like. I'll bring my digital camera home tomorrow in case you'd like me to send some.

Another clue is that natural black and white opal may or may not have a white to moderate blue, green or yellow fluorescence, or none at all under longwave UV, and it may phosphoresce (glow) for some time after removing it from the UV light source. Synthetic opal may or may not fluoresce moderate blue to yellow under longwave UV, but has no phosphorescence. In a nutshell, quality synthetic opal can fool even experienced gemologists unless they've examined a good deal of natural and synthetic opal.

As for imitation, or simulated opal, the separation is usually quite easy, especially if you've examined a lot of natural opal. Most imitations are glass, plastic or epoxy based, and magnification often shows them to have gas bubbles. The imitation glass varieties bear a superficial resemblance to natural opal. Its RI is generally 1.50 - 1.52, but may vary. The "play-of-color" often resembles cellophane or tinsel. SG is typically 2.41 - 2.50, but can vary. Hardness is 5 - 6.

Plastic imitation opal can have an RI of 1.48 or as high as 1.53, and can also show snakeskin or columnar effect, as well. It often fluoresces strong chalky bluish-white under longwave UV, and does not phosphoresce. SG is around 1.20 and can vary. Hardness is a whopping 2 1/2, so light pressure with a needle will penetrate it.

I'll take some pics of synthetics through the microscope tomorrow and send off-list if you like, please let me know.  
James S. Duncan, G.G. James in SoFI

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From: Noel  
> Synthetic Opal can exhibit a honeycomb effect when viewed under  
> magnification.

This is interesting! Can you expand on this? "Can" seems to suggest that it may not. Does natural opal ever show the same pattern? Thanks!  
Noel

-----  
From: The Doctor  
> Synthetic Opal can exhibit a honeycomb effect when viewed

> under magnification. This is interesting! Can you expand on this?  
> "Can" seems to suggest that it may not. Does natural opal ever  
> show the same pattern? Thanks!

You're welcome, Noel. Yes, "can" does suggest that it may not. Some batches of synthetic opal can be very convincing. As for natural opal, I've yet to see one that displays the effect, but that doesn't mean it can't happen. There is a naturally occurring oolitic opal formation that can look very similar to "snakeskin" but is subtly different. As I said, some synthetics are very difficult to separate from natural opal.

James S. Duncan, G.G. James in SoFI

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From: Greg DeMark  
Noel,  
Every Gilson created Synthetic Opal that I have examined has shown a honeycomb effect. Genuine Opal never shows this effect and Imitation Opal never shows this effect. Imitation Opal (often referred to as floating Opal) is either a glass or plastic and will generally have various color foil embedded in it.  
Greg DeMark

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From the Orchid Digest from <http://www.ganoksin.com>, dated From 2005\_07\_27 - to 2005\_07\_31. Printed with permission of Ganoksin.

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**Lost Opal Mine Information Request**

I'm a sucker for lost treasure mines and stories, but I have never heard of a lost opal mine until now. Here is an excerpt I found in a book called, **Some Western Treasure Trails**, By Jesse E. Rascoe, Published 1967 by Frontier Book Co. Fort Davis, Texas. New Mexico Section, Page 48:

**Grant County Opal Mine**

*The El Paso Herald on December 21, 1912 pointed a finger at the discovery of opals in the area southwest of Silver City; "An opal mine was opened in Grant County. Experts say the gems are equal to the best and as attractive as are Australian opals." This area is an old mining district, but the district is large and the going is rough. The area is thought north of Steins Pass.*

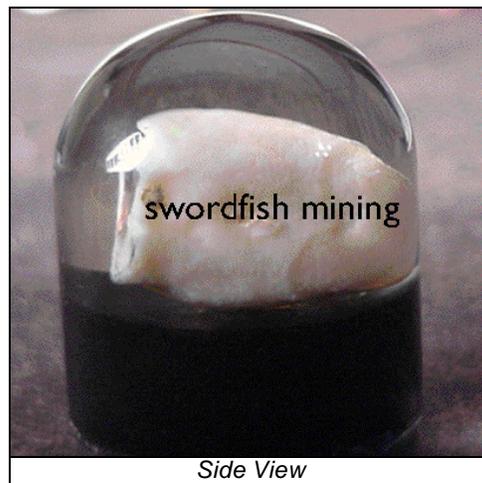
Over the years I have been attempting to create an anthology of all the precious opal deposits in the Americas. I was not aware of New Mexican opal deposits until now, if this report is true. If any of our members knows anything about this mine, or about New Mexican opal, please contact me at [editor@opalsociety.org](mailto:editor@opalsociety.org) or mail me at the AOS P.O. Box.

Thanks,  
Jim Pisani, Editor, AOS

++++  
**The Snake Head**

The precious opal snake head cast. The head is preserved in glycerin but the body segment is dry and has not crazed. This came from the Rainbow Ridge Opal mine in 1992. That's 1/2 dry for 12 years.

*By Swordfish Mining.*



Side View



Bottom View

This cast is of straight up color white base precious opal with good multicolor play of fire. The outside rind, which was against the matrix and cast the skin, is of an airy contra luz in yellow green red flashes. Non experts don't believe it can be real but I have to pry it out of biologists hands. Nobody has proven it is not what I claim it to be.

A CAT scan was un-conclusive to species as it was shot 90 degrees off optimum. We thank the nuclear medicine department at Merle West Hospital in Klamath Falls, OR for their help in the initial scans.

The fossil was made with the tip of the chin above the last layer of opalization (belly up). David Lawler, past director of the Geoscience Foundation U.C. Berkeley (an accepted expert in the field), confirmed it was a snake and not a lizard head. He believes there is no visible internal structures replaced and the cast is of the surface features only. He surmised it was a shovel head snake that were fairly common then. Not positively identified to species, there are no comparisons we have found or heard of.

IT WOULD BE THE ONLY PRECIOUS OPAL REPLACEMENT OF A SNAKES HEAD ON THE PLANET THAT HAS YET BEEN DISCOVERED. To confirm identification we need an "REAL" official expert to rescan and examine the scales of the triangle on its head.

This one is 3 dimensional in precious gemstone. Serious principles and dealers only please. It's a natural gemstone serpent fossil that is truly ONE OF A KIND. It was in tailings on top of dust in July when found on private property.

*Note all text and photographs copyrights reserved by John Church. Republication not for gain is permitted with proper URL credit given.*

From [http://www.virginvalleyopal.com/precious\\_opal\\_snake\\_head\\_cast.htm](http://www.virginvalleyopal.com/precious_opal_snake_head_cast.htm)

## A Rockhound in Iraq

*(Your editor (of The Cochise County Rock) went to a week-long Agate trip in New Mexico in the fall of 2003. The leader of this adventure was Yonis Lone Eagle. Every morning at 8 am, we would line up our cars behind the lead vehicle driven by Yonis and head for Agate and Jasper areas. Yonis was an officer with the Rocky Mountain Federation. He brought his wife and his 18-month-old son Dusty on the trips. Last month I emailed him a copy of our newsletter. I was surprised to get a return email from Iraq asking if we would be interested in publishing a series of articles from a rockhound on duty in Iraq. This is the first in that series. - by Paul McKnight, editor of the Cochise County Rock)*

Intro – 31 Dec 2004

Howdy fellow Rockhounds. Sergeant Yonis Lone Eagle from the Rocky Mountain Federation here writing to y'all from Camp Virginia in Kuwait. We reported to our unit on Christmas day and left for the Middle East on the 26<sup>th</sup> of December. We are here at a staging area with over 5000+ other U.S. troops and coalition forces from at least a half a dozen countries waiting for our turn for a flight north into Iraq. I'm currently assigned to the 228<sup>th</sup> Combat Support Hospital as a senior Bio-Medical Equipment Technician or BMET. The 228<sup>th</sup> is from Fort Sam Houston, Texas. I will be stationed in Tikrit, Iraq where we will set up and operate a 44 bed field hospital to support our brave troops during "Operation Iraqi Freedom."

Being a very avid Rockhound for almost forty years now, I find adventure in every new field I hunt in. But to go hunting for rocks and fossils in a foreign country called Iraq during the ongoing "War on Terrorism" is something totally different. One must be very careful not to step on any old forgotten land mines and to keep your head low for all the flying bullets.

Therefore, I thought I would share my adventures with my fellow Rockhounds. I will be writing periodically on war, the geology and rock & fossils I find over here. I hope everyone will enjoy these stories and I look forward to your comments. Y'all can e-mail me at [rockymountainrockhounds@yahoo.com](mailto:rockymountainrockhounds@yahoo.com). This first report is more about the country that I will be working in for the next year. Hopefully it will give you a better idea of where I'm located.



Sergeant Yonis Lone Eagle

## Rock Hunting in an Iraqi Combat Zone (Rockhounding at its Extreme) PART 1 of 5

*By Yonis E. Lone Eagle*

With a current population of almost 25 million, Iraq is a very ancient country with its birth dating back to near the dawn of civilization almost 10,000 years ago. Some of the world's greatest ancient civilizations such as Assyria, Babylonia, and Sumer developed in the area of Iraq. It is bordered by Turkey to the north; Iran to the east; by the Persian Gulf, Kuwait, and Saudi Arabia to the south; and Jordan and Syria to the west. The physical geography is made up of a combination of a arid sandy rocky desert and mountains that covers almost 170,000 square miles with a green vegetation zone between her two major rivers, the Euphrates to the west and the Tigris to the east.

The northern portion of Iraq, known as Al Jazira, is mountainous. Near her northern border with Turkey, elevations reach around 7,000 feet above sea level; in the northeastern part of the country, near the border with Iran, there are higher peaks. The highest is Mount Ebrahim with an elevation of almost 12,000 feet

above sea level. Farther south the country slopes downward to form a broad, central alluvial plain, which encompasses the valley of the Euphrates and Tigris rivers. West of the Euphrates, the land rises gradually to meet the Syrian Desert. The extreme southeastern portion of Iraq is a low-lying, marshy area adjacent to the Persian Gulf.

There are two different types of soils in Iraq. Heavy alluvial deposits, containing a significant amount of humus and clay, make up one type and are very useful for the numerous construction projects in the region. The lighter soils, lacking in humus and clay content, contain wind-deposited nutrients. With its large quantities of water, supplied by the Euphrates and Tigris rivers, semi-rich soil has been deposited along and between the two rivers for centuries. A high saline content mars the otherwise rich composition of these deposited soils. Flood-control projects and irrigation on the Euphrates and Tigris rivers help increase the agricultural production of this area. About 50 percent of the land is arable.

Iraq is predominantly an agricultural country. Approximately 12 percent of the land is under cultivation. Most farmland is in the region of the Euphrates and Tigris rivers. Agricultural production averages included 550,000 metric tons of wheat, 465,000 metric tons of barley, and 130,000 metric tons of rice annually. Before the imposition of UN sanctions, exports of dates from Iraq accounted for a major share of the world trade in dates. Other fruits produced include apples, figs, grapes, olives, oranges, pears, and pomegranates.

The natural resources of Iraq are primarily mineral. The country is well endowed with petroleum and natural gas. Petroleum is the most important natural resource of Iraq. The country is estimated to have about 10 percent of the world's supply of proved petroleum reserves. The oil fields are located in two main regions: in the north-central part of the country, near Kirkuk and Mosul, and in the southeast part of the country, just inland from the Persian Gulf, near Ar Rumaylah. There are also small deposits of various other minerals that include ores of copper, gold, iron, lead, silver, platinum, and zinc. Gypsum, salt and sulfur are fairly abundant, and seams of brown coal are numerous.

On a rockhound note... While still in Kuwait and out on a nearby weapons range to test fire our rifles, which is located out in the middle of the Kuwaiti desert, I found a good size chunk of well tumbled light gray & tan agate. About the size of a grapefruit and weighing about 5 or 6 pounds, it was very weathered and polished from the blowing desert sands. I'm looking forward to getting back to the states and cutting it open. I suspect it will be banded inside.

There were also several more much smaller tumbled stones that covered the entire area, evidently, an ancient riverbed. I also found a smaller, less rounded two-toned rock slightly larger than a golf ball. Half of the rock was a dark purplish-brown color and the other half was a tan color. The blowing desert sands or sandblasting too had polished it. And walking to the chow hall at our base camp the other day, I found a small piece of tumbled Brown Moss Agate, a nice little surprise.

Well folks, I hope y'all enjoyed this first report. I will be writing more once I get up north to Tikrit. Everyone take care and happy hunting.

From the The Cochise County Rock 3-05 for text <http://www.rockroost.com/news-rockroost-report-iraq.html> for photos.

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**Finder of Big Meteorite says He's only Scratched the Surface**

*By Kevin Murphy, The Kansas City Star*

*"It's from out there on the other side of Mars. How cool is that?"*

*Steve Arnold, professional meteorite hunter*

GREENSBURG, Kan. — Bouncing over the dirt rows of the newly planted wheat field, Steve Arnold's contraption of plastic pipes mounted on four lawn-mower wheels looks mighty strange.



Allen Binford, left, poses with meteorite-hunter Steve Arnold and the 1,400-pound meteorite. G. Marc Benavidez / AP, that Arnold discovered on Binford's farm in Haviland, Kan.

Then there is Arnold — pulling the rig behind him while a plastic bucket containing a metal detector hangs around his neck.

Odd as he looks out there in the field, Arnold has brought a new and lucrative form of farming to south-central Kansas: He harvests meteorites — with the cooperation of landowners. "A cash crop," Arnold, the professional meteorite hunter, said, beaming.

It certainly can be. Last month, Arnold announced that he had dug up near Greensburg a 1,400-pound pallasite meteorite, the largest of its type ever found in the United States. It could be worth up to \$3 million, experts said.

The owner of the land where Arnold found his prize will get a nice cut of the sale price. Arnold has signed leases with the owners of nearly 3,000 acres to look for meteorites. He pays them up front for hunting rights, and each gets a share of his sales. "I've never heard of anyone doing that before," said Jeffrey Grossman, a geochemist and secretary of the Meteoritical Society, an international planetary science organization.

Arnold's partner and lawyer, Phil Mani of San Antonio, set up the recent contracts and paid expenses for Arnold's prospecting in Kansas. Mani said that the contracts are a first and are necessary because without them the meteorites would be the property of the persons on whose land they fell. "We are going to cover all the land where we think meteorites can be found," Mani said.

Arnold, a Wichita native, makes his living trading and selling meteorites, which are sought after by museums and universities and by collectors tantalized by the otherworldly nature of such rocks. Meteorites come from the asteroid belt formed at the dawn of the solar system about 4.3 billion years ago. "It's from out there on the other side of Mars. How cool is that?" Arnold said. "You can own something that has not changed since the beginning of the solar system."

Meteorites, most of them smaller than grapefruits, are sold over the Internet and at shows. Arnold's is being kept in Texas and will be displayed at a major gem and mineral show next month in Tucson, Ariz.

News of his discovery spread fast, landing Arnold on several national news shows and stirring envy in the meteorite community. "Its overwhelming size and shape make it truly unique," Allan Lang, a well-known meteorite dealer in upstate New York, said of Arnold's discovery.

Meanwhile, Arnold is back in the field looking for more. His high-powered metal detector can pick up signals 20 feet below, he said. "There may be something bigger, but I doubt there is something better," Arnold said.

Arnold's meteorite is dark orange to bronze in color, measures about 36-by-30 inches and has a rare bulletlike shape and smooth surface. Pallasite meteorites such as Arnold's are made of iron nickel and olivine crystals and account for less than 1 percent of all discovered meteorites, which are rare in the first place.

#### **A bounty of meteorites**

Kansas is a leading source of meteorite discoveries in the United States, authorities said. The state is extensively farmed, has relatively little foliage and few indigenous rocks that meteorites would get confused with, said Geoffrey Notkin, an Arizona meteorite hunter who sometimes helps Arnold search in Kansas.

Another reason is that 1,000 to 2,000 years ago, the Greensburg area was pelted with meteorites from what later was named the Brenham meteorite. It was named after the township where some pieces landed.

Prehistoric Indians gathered the fragments as religious symbols, and the first documented collections occurred in the 1880s. In the 1920s, famed meteorite collector Harvey Nininger found a crater from one point of impact, and he encouraged residents to look for meteorites.

The Brenham meteorites are in collections worldwide, including ones at Harvard and Yale universities, the Smithsonian Institution in Washington and in an exhibit at the American Museum of Natural History in New York.

The previous largest meteorite was found in 1949 and is on display at a Greensburg museum that also is home to the world's largest hand-dug well. Greensburg, a town of 1,500 residents, is about 110 miles west of Wichita.

Meteorite hunting tapered off in the Greensburg area in recent decades as people assumed that the fields had been tapped out. But Arnold did some research that showed otherwise, though he declined to be specific. "There's an element of a good old-fashioned treasure hunt to it, complete with a treasure map," said Arnold, who lives in northern Arkansas but bought a house in Greensburg to serve as a base for his search.

Arnold's German-made device can find metal much deeper than most detectors. The coil of the detector is mounted on the flat trailerlike rig that Arnold pulls behind an all-terrain vehicle. A cable connects the coil to the detector control box in the bucket around Arnold's neck. When the detector squeals, signaling a find, he slowly

pulls the rig by hand to pinpoint the location.

While Arnold has found a few meteorites, he also has collected a tub of rusted metal items from bygone days of farming — including a buckle from a horse-drawn plow, horseshoes, a ring from a bull's nose and steel wagon wheels.

Most items are near the surface, but the big meteorite was much deeper. Arnold dug 2 feet by hand and then got a backhoe. Seven feet below, he unearthed the meteorite of a lifetime.

#### **A unique specimen**

The significance of Arnold's meteorite lies in its size and shape because many specimens have been studied from the same meteor breakup, authorities said.

"Unless this one has some very unusual internal structure, it probably will not advance the science significantly," said Randy Van Schmus, a geology professor at the University of Kansas and meteorite expert. "As a collector's item, it would have extremely high value. It's a very significant find and a very good museum specimen."

Denton Ebel, assistant curator of earth and planetary sciences at the American Museum of Natural History, said the meteorite probably would bring at least \$1 million. Small pieces of pallasite meteorites from Kansas have sold for about \$4 to \$5 a gram, collector Lang said, which would make Arnold's meteorite worth from \$2.5 million to more than \$3 million if it were cut up and every piece were sold.

However, Mani and Arnold said they think that the meteorite, because of its size and shape, may be valuable in one piece. They would like to see it on display in a museum. "That's my hope, and everything is negotiable," Arnold said. "If someone is willing to offer significantly more than someone else, it is theirs and they can do what they want with it."

#### **First glance**

Measuring about 36-by-30 inches and weighing 1,400 pounds, the pallasite meteorite that Steve Arnold found recently near Greensburg, Kan., is the largest meteorite of its kind ever found in the United States.

Arnold owns the meteorite thanks to a contract he signed with the owner of the land on which it was found.

To reach Kevin Murphy, call (816) 234-4464 or send e-mail to [kmurphy@kcstar.com](mailto:kmurphy@kcstar.com)

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#### **New Opal Find!!!**

While we were setting up our club display we had the pleasure of talking to a gentleman from the Panorama Gem and Mineral Club who was setting up his own display case. Inside his display case he had many specimens of a newly discovered opal deposit in Stevens County. This opal is a lovely sky blue and some of the pieces were nice and chunky. But wait... Eight pieces from his total parcel taken



*A sample of the new opal find in Stevens County, Washington*

so far were of the PRECIOUS variety!!! The exhibited strong plays of color ranging from red, blue, green and yellow from what I could see. This is definitely some very nice precious opal! The big question, "Is it stable?" remains to be answered as the find is so new no one has had any time to cut this material. Below is a picture of a sample of this lovely opal that I was fortunate enough to acquire at the show. I will try to update this information if I hear any more news on the deposit.

From *Pend Oreille Rock & Gem Club website*:

<http://www.povn.com/pendoreillerockandgem/Colville.html>

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## How to Find the Fire in Fire Agate

Fire Agate is a quartz-based rock with layers of iron oxide in chalcedony which results in iridescence. It occurs in nodules of milky or grayish translucent chalcedony. Sometimes it is found in botryoidal growths in geodes and in chalcedony roses.

Fire Agate appears as a dull, reddish brown layer, but when the surface layers are removed, the rainbow colors or iridescence are exposed. The fire is brought out by tumbling, trimming, and grinding off the outer layers to expose the iridescence. Polishing magnifies the fire.

To find the fire, remove the matrix, then tumble polish the stones. Tumbling removes the excess chalcedony. When polished, remove excess stone around the edges, then polish and set. Allow the stone to retain its irregular shape and polish slowly, so you don't go through the fire layers. The graceful natural shapes are superior to those cut to calibrated sizes, as the best fire doesn't always fit a mold. To set it off, mount the fire agate in a custom-made gold or silver setting. Fire Agates are most often found in Arizona, California, Idaho, and Mexico.

From *The Tumbler 1-2003*, via *The Cochise County Rock, 4-2005*

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## Peacock Ore

"Peacock Ore" - A strange name for a mineral; but it makes sense. The peacock is noted for its brilliant array of iridescent colors -gold hued reds, blues, and purples. So is this mineral. It's brilliant colors change from golden purples to pinks to blues depending on how the light reflects from it.

It is also called "purple copper ore". Freshly mined chalcocite displays such colors also. The ore is called "Yellow Copper Ore".

It's the tarnishing exposure to air that produces the thin-film iridescence. The reason one doesn't see such minerals on jewelry is that the color disappears soon after exposure to the atmosphere. The sulfides oxidize and a thicker, duller coat of copper/iron oxides conceals the colors below.

An ore is exactly what it is, copper ore. Chemically, it is a sulfide of copper and iron with metals in varying proportions. It's an important source of metallic copper. Mining is mostly in Chile, Canada, and Mexico.

For the purist, it is "Bornite" after the 18th century mineralogist, Ignatius Von Born ( Also called "Peacock" by his friends.) *By Kemp Roll from Chats and Chips 3/02*, via *The Pick and Shovel 11/05*

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## March 2006 Gem & Mineral Shows

**3-5--COSTA MESA, CA:** Gem show; Gem Faire Inc.; Orange County Fairgrounds/Bldg. 12 and POP, 88 Fair Dr.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**3-5--HAYWARD, CA:** 59th annual show and sale; Mineral & Gem Society of Castro Valley; Centennial Hall, 22292 Foothill Blvd.; Fri. 10-6, Sat. 10-6, Sun. 10-5; adults \$5, children under 13 free with adult;; contact Ron Miller, (510) 887-9007; Web site: www.mgscv.com.

**3-12--IMPERIAL, CA:** Show, "Imperial Valley Gem and Mineral Show"; Imperial Valley Gem and Mineral Club; IV Expo ,200 E. 2nd; Fri. 12-10, Sat. 12-10, Sun. 12-10, Mon. 4-10, Tue. 4-10, Wed. 4-10, Thu. 4-10; rocks, gems, fossils, demonstrations, dealers; contact John Swerfeger, (760) 344-6230; e-mail: [itsjeep@earthlink.net](mailto:itsjeep@earthlink.net).

**4-5--ARCADIA, CA:** 46th annual show; Monrovia Rockhounds; Los Angeles County Arboretum & Botanical Garden, 301 N. Baldwin Ave., 1 block South of I-210; Sat. 9-4:30, Sun. 9-4:30; 13 dealers, display cases, geode cracking, dino dig, treasure wheel, raffle, \$1 grab bags; contact Janie Duncan, 328 E. Foothill Blvd., Monrovia CA 91016, (626) 358-8157; e-mail: janieduncan@altrionet.com.

**4-5--NY, NY:** Show; Excalibur Mineral Corp., NY Mineralogical Club; Holiday Inn-Midtown, 440 W. 57th St.; Sat. 10-6, Sun. 11-6; admission \$6; 20 wholesale and retail dealers, lectures, displays; contact Excalibur, 1000 N. Division St., Peekskill, NY 10566, (914) 739-1134.

**4-5--VENTURA, CA:** 44th annual show; Ventura Gem & Mineral Society; Seaside Park, Ventura Co. Fairgrounds, 10 W. Harbor Blvd; Sat. 10-5, Sun. 10-4; free admission; 50 displays of gems, minerals, fossils, and jewelry, including a fluorescent exhibit, demonstrations, kids' activities, video presentations, door prizes, silent auction, country store, plant sale, 15 dealers; contact Jim Brace-Thompson, (805) 659-3577; e-mail: jbraceth@adelphia.net; Web site: www.vgms.org.

**10-12--DEL MAR, CA:** Gem show; Gem Faire Inc.; Del Mar Fairgrounds, 2260 Jimmy Durante Blvd.; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**10-12--VICTORVILLE, CA:** Tailgate; Victor Valley Gem & Mineral Club; Stoddard Wells Rd., 11 miles east of I-15; Fri. 8-5, Sat. 8-5, Sun. 8-2; free admission; free tailgating; contact Joe Kosik, (760) 241-0894.

**11-12--SALINAS, CA:** Annual show; Salinas Rock & Gem Club; Spreckels Veterans Memorial Bldg., 5th and Llano St.; Sat. 10-5, Sun. 10-5; free admission; gem and mineral displays, demonstrations, Wheel of Chance, silent auction, dealers, gems, jewelry, fossils; contact Jim Bassett, (831) 758-5830, or Bob Brewer, (831) 758-6274; e-mail: jbmssc@sbcglobal.net.

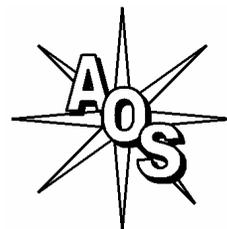
**11-12--SAN MARINO, CA:** 48th annual show, "Tournament of Gems"; Pasadena Lapidary Society; San Marino Masonic Center, 3130 Huntington Dr.; Sat. 10-6, Sun. 10-5; free admission; demonstrations, dealers, displays; contact Todd Neikirk, (323) 256-4992.

**11-12--TURLOCK, CA:** Show; Mother Lode Gem & Mineral Society; Stanislaus County Fairgrounds, Hwy. 99, Fulkerth exit; Sat. 10-5, Sun. 10-5; two buildings, 30 dealers, gems, minerals, fossils, pearls, beads and findings, fluorescents, jewelry, equipment, facet rough, 70 educational displays, dinosaur "petting zoo" and exhibits, treasure hunt, children's activities, silent auction featuring three old collections, fluorescent room, 15 demonstrations, speakers, full-size Plesiosaur cast replica, 13-inch opalized ammonite, authentic prehistoric marine fossils, prehistoric cave bear, and woolly rhinoceros; contact Bud McMillin, (209) 524-3494; Web site: www.motherlodemineralsociety.com.

**18-19--BAKERSFIELD, CA:** 4th annual show, "Rock & Mineral Rendezvous"; San Joaquin Valley lapidary Society; Kern County Fair Grounds, 1142 South P. St., at Belle Terrace; Sat. 95, Sun. 95; free admission; international rock and mineral dealers, bead and beading supplies, jewelry, wire wrapping, faceted stones, fossils, lapidary equipment, mineral and crystal specimens, arrowhead knapping, wire wrapping, silversmithing, and sphere making demonstrations, hourly drawings, grab bags, spinning wheel, Trading Post; contact Lew Helfrich, (661) 872-8230; e-mail: lewsrocks@netzero.net.

**24-26--SAN FRANCISCO, CA:** Gem show; Gem Faire Inc.; Fort Mason Center/Herbst Pavilion, Landmark Bldg. A; Fri. 12-7, Sat. 10-7, Sun. 10-5; weekend pass \$5; contact Yooy Nelson, (503) 252-8300; e-mail: info@gemfaire.com; Web site: www.gemfaire.com.

**25-26--ROSEVILLE, CA:** 44th annual show, "Nature's Wonders"; Roseville Rock Rollers Gem & Mineral Society; Roseville (Placer County) Fairgrounds, 800 All America City Blvd.; Sat. 10-5, Sun. 10-4; adults \$4, seniors (60+) \$3, children 12 and under free; contact Gloria, (530) 367-2262, or Jim, (530) 367-5108; e-mail: [jhutchings22@hotmail.com](mailto:jhutchings22@hotmail.com); Web site: www.rockrollers.com.



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**NAME BADGE ORDER FORM:**  
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**MEMBERSHIP ROSTER and NEWSLETTER MAILING:** The AOS publishes a membership directory once per year in its Newsletter, the *Opal Express*. Your name will be included. Please check what additional personal information that you want listed for other members. If it is different from the information above, please note that on the application.

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The American Opal Society.

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Editor-Jim Pisani

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## Are Your Dues Due Now?

**PLEASE CHECK YOUR ADDRESS LABEL.** If your label shows the current month/year your dues are DUE NOW. If the date is older, your dues are overdue.

**A Renewal Grace Period** of two months will be provided. If your dues are due now you will receive two additional issues of the newsletter. Please note, however, that as the system is now set up, if your renewal is not received you will be AUTOMATICALLY dropped from membership thereafter. It is your responsibility to assure your dues are current.

Thank you,  
The Editor

# The Opal Express

American Opal Society  
P.O. Box 4875  
Garden Grove, CA 92842-4875



**Volume #39 Issue #03  
March 2006**

TO:

### Some Topics In This Issue:

- Famous Opals: The Butterfly Stone
- Field Trip Report: Opal Canyon
- Noel Lamkin Returns
- Opal Fakes
- Lost Opal Mine in New Mexico
- The Snake Head
- A Rockhound in Iraq
- Big Meteorite found in Kansas
- New Opal Find in Washington State
- How to Find the Fire in Fire Agate Peacock Ore

## March 9th:

# Jochen Knigge on Brazilian Opal

### Important Info:

### General Meeting

### March 9<sup>th</sup>

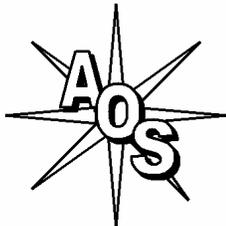
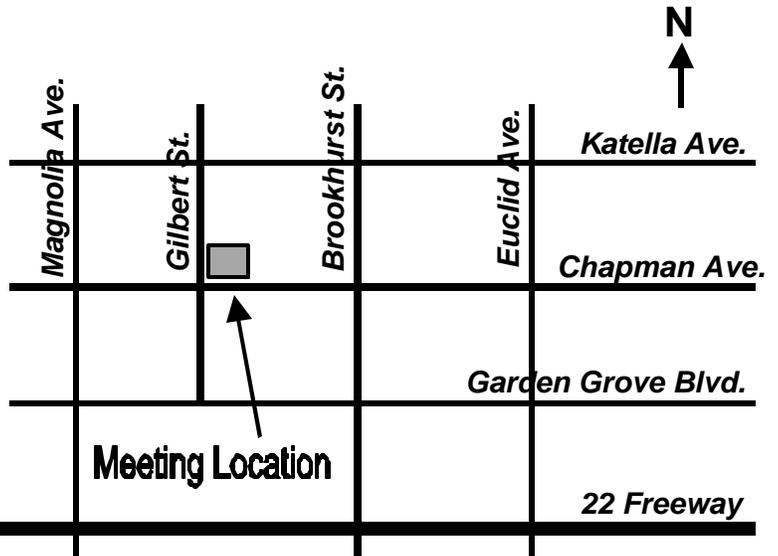
Jochen Knigge will present a film on Brazilian opal and mining and will have opal and the film (DVD) for sale.

### — GENERAL MEETINGS —

2nd Thursday of the Month  
7:00 pm - 9:00 PM  
Garden Grove Civic Women's Club  
9501 Chapman Ave.  
(NE corner of Gilbert & Chapman)  
Garden Grove, CA

### MEETING ACTIVITIES

Opal Cutting, Advice, Guest Speakers,  
Slide Shows, Videos, Other Activities



## The American Opal Society

<http://OpalSociety.org>

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