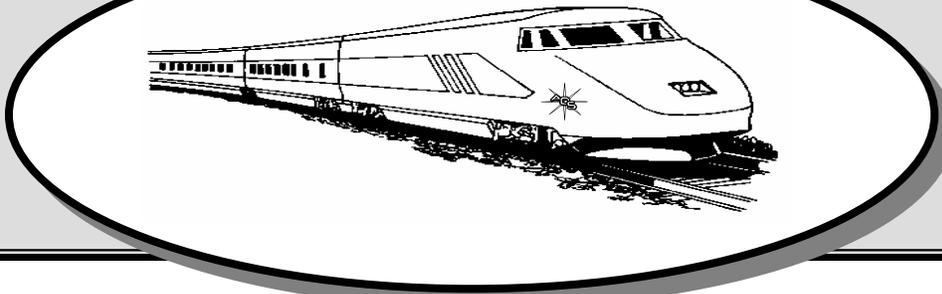


# The Opal Express

Published  
monthly by  
The  
American  
Opal  
Society



September 2006

Volume 39 Issue 9

## Table of Contents:

President's Message	1
Members Only Website Password	1
Opal Society Workshop	1
September Speaker - Daniel Toledo	1
Wes Roth Wins Jewelry Design Contest	2
The Starfire Opal Mine is Active	2
Famous Opals: The Aztec Sun God	2
Opal Lore	2
August Speaker - Francis Lau on Diamonds	3
Peruvian Blue Opals - How to Spot a Fake	4
Precious Gems: The History of a Concept	4
The Mystery Opal Miner - Carney Jimmy	6
Safety Article - Sunburns and Skin Cancer	7
September 2006 Gem & Mineral Shows	7

## President's Message

*By Gene LeVan*

Last month's meeting was on DIAMONDS and really provided insight to this very precious stone. Mr. Lau gave very detailed information about the source of stones, cutting and mounting for best presentation. Also the members did show some of their good opals to other members as I requested, this provided more interest and questions about opals.

Value of opal is quite simple but also complex. Base rule for any gem is; if looks good to the eye without any assistance it has high value, brightness of opal (COLOR OF PLAY) in low light has high value. For the most dollar value in opal choose brightness and color red being the most expensive.

Size is miss leading, small bright stones are better value than larger stones.

See you at the meeting!

## 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: "nevadaopal".

## 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!

+++++

## September Speaker - Daniel Toledo

The September 14<sup>th</sup> general meeting lecture will be by famous wildlife jewelry designer Daniel Toledo on "Opals and Animals in Designing Jewelry". Daniel will discuss aspects of including opals with animal themed jewelry and how to "think outside the bezel". An example is using a blue green opal as a watering hole with a tiger drinking from it.

Bio - Daniel C. Toledo is a wildlife artist of 30 years. His passion for wildlife sparked while serving for the U.S. Marines in the jungles of South Vietnam during the late 60's. He began his career as a wildlife artist specializing in predatory animals, such as big cats, bears, birds of prey, and the noble creatures. His compositions reflect an extensive study of the animal's anatomy and their habitat. He was a student of the Art Center College of Design in Pasadena, California and the Gemological Institute of America where he attained his diploma in jewelry arts in 1979. He has done many shows in the western United States and his works are in private collections throughout the world. Wildlife jewelry is at the forefront of his commissioned work today. At present, he is in the process of completing a 20 piece collection (which includes 6 major necklaces) for a wildlife art museum in the San Francisco area which will be opening at a later date.

In 2002, Daniel was invited to participate in G.I.A.'s museum exhibition held in the Mikimoto Rotunda, "In Celebration of Precious Wildlife." A collection of themed jewelry from the Victorian era to present day was shown. Fourteen pieces of Daniel's jewelry represented some of today's most current wildlife jewelry. These pieces were from the above mentioned collection. Daniel has also been a judge for the past two years for the George M. Schuetz Design Competition at G.I.A.

*"My philosophy behind my work has always been to create the creatures I portray as realistic and unique in design to captivate the heart, because these works serve as ambassadors to the public."*

## Wes Roth Wins Jewelry Design Contest

One our Society's past presidents, Wes Roth, has won 2<sup>nd</sup> Place in the Finished Jewelry Division for Men's Jewelry in the 2006 Bench Jewelers Passion Award Design Competition. Wes had entered a hand fabricated Sterling Silver with band inset of Antique Roman Bronze. The stone is an Australian Opal.

114 pieces of jewelry or CAD renderings were entered in the contest. The winning pieces were announced at the Bench Jewelers

Conference & Expo April 28th in Denver, CO. All 114 entries were displayed in a slide program during the banquet and the winners were announced during the program. All

16 First & Second Place pieces were displayed during the Conference & Expo in the Passion Award Gallery on the show floor. See <http://www.bwsimon.com>. Congratulations, Wes!

+++++

## The Starfire Opal Mine is Active

*By Jim Pisani, Editor*

I am happy to announce that the Starfire Opal Mine in Nevada can now classified in the "Active" status!



Wes's 2<sup>nd</sup> Prize Opal Ring

**IT'S COMING!!!**

**Get READY!!!**

**The American Opal Society's 39th Annual**

**ANNUAL OPAL & GEM SHOW**

**The Largest Opal Show in USA!**

**Sat. & Sun., November 11 & 12, 2006**

**Saturday 10AM - 6PM**

**Sunday 10 AM - 5PM**

**Opal and Gem Dealers** from around the USA and Australia.

**Rough and Cut Opals;** other gemstones; jewelry & supplies.

**Huge Raffle** many prizes of gemstones, jewelry, tools, etc.

**Free Opal Seminars** on Saturday & Sunday with Paid Admission.

**Free Demonstrations** on gem cutting, jewelry making, etc.

**Same Location Since 1991:**

**Clarion Hotel Anaheim Resort**

616 Convention Way ANAHEIM, California

Close to **DISNEYLAND**

One block South of Katella on Harbor Blvd.

near the Anaheim Convention Center

## Notice to Interested Dealers

If you haven't registered yet for the show, please contact Jim Lambert at:

Phone: (714) 891-7171 or email: [jlamb777@yahoo.com](mailto:jlamb777@yahoo.com)

I had re-publishing an old 1979 Lapidary Journal article (See "Opal Mines of Nevada", July, 2006 Opal Express), which mentioned an old mine near Gabbs, Nevada called the Starfire Mine that had precious, blue opal. I added a footnote asking if any of our members new the status of some of the Nevada mines. In less that a month, I got a reply, by the new owner of the mine, who happened to be one of us!

Chris Duffield, who has been an AOS member since 2000, e-mailed me to say that the "Starfire Mine" is and has been a private mine for a while now and that he purchased the interest of this mine from the legitimate claim holders last year. He is currently in the process of transferring the rights as the new claim holder.

Chris, being an avid "Opaloholic" and avid AOS member, wanted to let the membership know about the status of the mine and his contact information.

He believes that there is still much opal at mine even though it has all been beautifully reclaimed and cleaned up. He suggested that in the future he could host some field trips for AOS members interested in digging at this fine mine. You can contact Chris Duffield at 661-965-2760 or E-mail him at [cgsdausa@sbcglobal.net](mailto:cdsdausa@sbcglobal.net).

I'm positive we could have a great showing for Chris's new mine. Stay tuned for further news!

+++++

## Famous Opals: The Aztec Sun God

*History of the Mexican Opal*

*Queretaro, birthplace of the Opal and Opal Mining Pioneers*

According to historic dates, Mexican Opals were used by the Aztec people for the elaboration of ornamental and ceremonial pieces between the years 1200 and 1519. The opal was known by the name

vitzitziltecpal

or "humming bird stone", referring to the similarity of the iridescent of the gem with the feathers of the bird. One of the opals used by the Aztecs know worldwide with the name of the **Aztec Sun God**, was supposedly found in XVI decade, and later formed part of the Hope gem collection. In 1881 it was sold to the Museum of Natural History in Chicago to be part of their Tiffany gem collection.

With the Conquest of the Spaniards all the know location for opals were lost, it wasn't until 1840, that Sir José María Siurab rediscovered the deposits and started to work the mines Santa María Iris, in Hacienda Esmeralda. In 1855 other important deposits were discovered in Hacienda Esperanza, the mine La Carbonera, among others. There were mining pioneers like Leonardo Godinez, Bulmaro Hernández, Joaquín Ontiveros and Eugenio Ontiveros, this last one obtaining the concession of the mine Los Cascarones, a mine that produces a great deal of opals back in that period. The region reached its peak in the year 1969 as a result of the great demand of opals abroad.

From <http://www.loscabosguide.com/opalosdemexico/history.htm>

+++++

## Opal Lore

*By Richard Busch (FGMS Member)*

Perhaps no other gemstone has been as loved and as feared

over the centuries as opal. Opal of ancient times, known as Hungarian opal, came from Marmaros in the Nagy-Banya district of what is now Czechoslovakia. The colors scintillate on a white or pale-tinted background, and so this variety, which is also found in Australia, Honduras, and many other countries of the world, is called white opal.

In startling contrast to white opal is the black opal of Australia and Nevada. Against a curtain of dark blue, gray, or black, the opal colors flash in incomparable richness, glowing like a "smothered mass of hidden fire." The black opal from Nevada and Australia is found replacing fossil wood, shells of sea animals, and the bones of extinct reptiles which lived in the days when dinosaurs ruled the earth. Most opal occurs in thin seams in the rock.

The ancient Arabs believed that opals fell from the heavens in flashes of lightning, acquiring their marvelous colors in the process. The ancient Greeks felt that the opal gave foresight and the gift of prophesy to the wearer.

To the Romans, opal was the symbol of hope and purity. In fact, Pliny, the ancient Roman scholar in about 70 A.D., wrote that opal had the fire of the ruby (or the carbuncle), the brilliant purple of the amethyst, and the sea green of the emerald all shining together in incredible union. Opal was thought to prevent disease and to strengthen one's sight. Opal also provided the spirit of truth and the perfection of beauty. It is reported that the Roman Senator Nonius chose exile rather than surrender a large opal to Marc Antony.

Until three or four centuries ago this stone was thought to combine all the virtues of the various colored stones whose hues are united in its sparkling light; however, during the Black Plague in the 14th century opal took on an evil connotation, as it was thought to lose its luster when its owner died of the plague. Opal is thought to be a good thieves stone in that it makes one invisible. It is also thought to preserve blond hair. The birthstone for October is opal.

The fear of damaging an opal is not entirely fair to the species since no gemstone is indestructible. Opal is a bit softer and more fragile than most gemstones, but with proper setting and ongoing care, an opal can last a lifetime. Here are some tips. Generally, the thicker the opal, the better. Look for settings that protect the opal, such as bezel settings where the metal holds the stone all the way around its edges. Prong settings should be avoided.

Because opals contain water, they are prone to drying out which causes them to craze. Avoid storing opals in a bank safe deposit box. The atmosphere in bank vaults is purposely kept dry in order to protect papers. Unfortunately, this climate hastens the drying (and destruction) of precious opal.

When purchasing opal, it is best to buy from a reliable dealer and look for material that is at least one year old since, if the material was prone to crazing, it probably would have occurred by then. When working opal, keep the stone wet and cool to prevent it from shattering.

## References

- Dragsted, Ove; Gems and Jewelry in Color; MacMillan, 1975.  
Gemological Institute of America; Colored Stones Lesson 41: Birthstones; 1980.  
Ghosn, M. T.; Origin of Birthstones and Stone Legends; 1984.  
Gubelin, Eduard; The Color Treasury of Gemstones; Elsevier Phaidon; London; 1975.  
"Opal;" Carats and Crystals; via Breccia (9/93); Margaret Norton, Editor.  
"Opal (Program Review);" The Benitoite (4/93); Betty and Cal Keator, Editors.  
"Opal;" Rock Sack (10/93); Caroline Lash, Editor.  
"Opals;" PRH Bark (10/91); via Rocky Review (10/92); Jeane Stultz, Editor.  
Copyright © 1995 by Fallbrook Gem and Mineral Society, Inc.  
The preceding article was originally published in the May 1995 issue of Lithosphere, the official bulletin of the Fallbrook [California] Gem and Mineral Society, Inc; Richard Busch (Editor).  
Permission to reproduce and distribute this material, in whole or in part, for non-commercial purposes, is hereby granted provided the sense or meaning of the material is not changed and the author's notice of copyright is retained.  
<http://fqms.home.att.net/opallore.htm>

+++++

## August Speaker - Francis Lau on Diamonds

By Russ Madsen

Francis Lau began his talk by asking, "Why do you like diamonds?"

Francis offered four points. First, diamonds are very expensive. Second, diamonds have liquidity. There are about 3,000 minerals on earth. Of these about 3% are used in jewelry (90 types of stones). Of the top 20 gem stones, diamonds, rubies and sapphires are the most saleable. Third, diamonds have emotional impact. They can be given on ANY occasion. Finally, beauty. Very small diamonds can still be very attractive.

"Why is the diamond market so confusing?" The four "C's" of diamonds are: Carat - Color - Clarity - Cut. As with most gems, if everything else is equal a larger stone is more valuable so carat weight is important. In fact as we will see in a moment, efforts to gain carat weight can draw a cutter into producing a poor stone.

Evaluating color and clarity is a fairly empirical process using grading scales described briefly later in this article. As to cut, Francis noted that cut is rarely perfect because cutters never remove enough material. In his career as a gem dealer he has seen only two perfectly cut diamonds (and one was low in value because of poor color and poor clarity).

If one knows how to buy diamonds they can be a good investment. Francis functions as an agent in diamond transactions. He will discuss a person's requirements then call his 20 to 30 cutter friends who then fax back selections from their inventory or indicate a web site where the potential buyer can view stones. If a stone is selected the cutter is always called on the telephone to buy it because no other means of communication is quick enough. As agent Francis receives 3% on the sale and his good name and reputation support the flow of his business.

What about the composition of diamonds vs. graphite? Both are 100% carbon. The difference: diamonds crystallize at high pressure and high temperature, graphite crystallizes at low pressure and high temperature.

How to evaluate a diamond? The stone is rated for the four "C's". Then, using the industry standard pricing chart, a value is determined. Be advised the chart assumes perfect cut so reductions from chart pricing are usually necessary based on quality of cut. Also, it is easier to evaluate round cut diamonds because physical examination can determine the stone's exact shape and compare it to the ideal diamond. Therefore, Francis advised it is best to invest in round stones.

The impact of carat weight is significant. Compare a stone at 49 points with a stone of 51 points (100 points equal one carat). Because 51 points exceeds a half carat the second stone will be significantly more valuable (all other things being equal). Similarly, a stone weighing 101 points will be a few hundred dollars more per carat than a stone weighing 99 points. Finally, compare 149 points with 150+ points. Here the value of the larger stone jumps a few thousand dollars per carat. No wonder cutters try to achieve maximum carats at the expense of cut!

Diamond rough is usually octahedral. The cutting process involves dividing the particular rough into two parts. Best separation is usually above the centerline of the rough because this strategy yields one large stone and a smaller companion stone. Since the carat value of larger stones is greater, this method will yield greater total value than separating the rough on the centerline and cutting two medium stones totaling the same weight.

"What is the perfect cut?"

A perfectly proportioned diamond has a table that is 53% of the diameter at the girdle. The girdle will be 2 to 3 mm tall. The pavilion facets will have no leakage of light out the bottom.

Suppose a cutter studies a piece of rough and determines a perfectly cut stone will be .99 carats. At .99 carats the price per carat is \$5,900.00. Here is where the cutter may be drawn to reduce the

quality of the cut. By spreading the table to say 60%, the same stone will increase to 1.15 carats and because the stone is more than a carat, the per-carat value will go up to \$7,800.00. The total value goes from about \$5,850.00 to \$8,970.00

Can value go up more? If the girdle thickness is increased to 9 or 10 mm the carat weight of the stone will reach about 1.45 carats. There will be no increase in per carat price but the total value increases to \$11,300.00. Additionally, the rim of the stone can be extended or bulged out so that four sides stick out slightly and the stone is no longer perfectly round (these bulges are not apparent if a prong is set over each bulge). This will increase the weight to something over 1.5 carats. Finally, the pavilion facets can be cut deeper to add even more weight. All these cutting strategies increase the weight of the finished diamond while taking a toll on quality of cut.

The brilliance of a diamond is determined by the amount of light coming up through the table. Brilliance is assessed holding the stone still. The colorful fire of a diamond comes from the prism effect of the table facets and is assessed while turning the stone. Brilliance and fire are optimized when a stone is perfectly cut. Poor table facets will produce little fire and an improperly sized table reduces brilliance. Girdle edge is easily assessed with a loop. A poorly cut pavilion will leak light and allows one to look down into the table and see a line on paper held beneath the stone.

During the cutting process sometimes a decision must be made whether to cut the pavilion a bit shallow to improve clarity by getting rid of an inclusion. Here the cutter takes into consideration the change in weight and quality of cut, and compares the resulting value with and without the inclusion before proceeding.

What type of diamonds is good for investment?

Diamonds are rated on scales for clarity and color. Clarity ranges from internally flawless (IF) to included (I3). Investment grade stones should always come with a grading certificate and should be at least VS2 or better and grade D, E, or F for color.

The clarity grading scale is:

- IF = internally flawless
- VVS1 = very very small inclusion
- VVS2 =
- VS1 = very small inclusion
- VS2 =
- SI1 = slightly included
- SI2 =
- I1 = included
- I2 =
- I3 =

The color grading scale is:

- D = colorless
- E =
- F =
- G = near colorless
- H =
- I =
- J =
- K = more yellow
- L =
- M = more yellow still

Francis indicated there is nothing wrong with buying a stone of lower grade but don't buy as an investment. Stones grading below VS2 and color F should only be purchased for emotional reasons, they will be difficult to sell later.

For mounting higher grade stones, white gold will enhance the diamond's appearance. Lower grade stones with more yellow (stones grading G and below) are best set with yellow gold because the stone's color won't be so prominent.

If you are seeking to buy a stone and it seems too cheap watch out for poor cut. For example the table may be lopsided. Never buy a diamond already mounted. A setting makes it too easy to hide all manner of problems. Before buying always ask the cost to dismount and assess the stone loose.

A final word on color. While perfectly clear diamonds are highly valued and yellowish diamonds are faulted, colored diamonds can be highly prized including bright yellow stones. Blue and pink colors are generally viewed with favor but in no event will a colored stone be valued higher than D (white colorless).

Our thanks to Francis Lau for another fine talk. Francis can be reached at 626-573-2453.

+++++

## Peruvian Blue Opals - How to Spot a Fake

By Antoinette Boulay

If you're looking for blue opals, then a Peruvian blue opal should be your gemstone of first choice. These gems are becoming more and more rare as time goes on, as they can only be mined in the Andes Mountains near San Patricio, Peru. The unfortunate result is that some mines are producing different types of gemstones and dyeing them blue in order to pass these stones off as Peruvian blue opal. (Luckily, if you're looking for an opal inlay ring, this is less of a problem, as the fake opals tend to be used for beads). Opal inlay rings made with blue opals would be a beautiful addition to any jewelry collection.

There are a few ways for you to tell if the Peruvian blue opals you're looking at are not real. The most obvious clue is that fake blue opals will be relatively cheap - around \$30-\$40 for an entire strand of beads. Since the real opals are growing more and more rare, you would never be able to buy a string of beads for so cheap. After all, an opal inlay ring made with blue opal will be several hundred or even thousands of dollars.

Generally, if a company is making fake Peruvian blue opals, they will take white opals and then work to dye them. If you're worried that you might be buying fake blue opals, you should take a good look at the stones. In a lot of cases, you can tell that it is just a dyed white opal by looking with the naked eye. The blue coloring will be uneven, especially when you turn the stone so the light hits it from different directions. This is very useful if you're thinking about buying an opal inlay ring with blue opal, since you won't be able to tell by the price in some cases, and the weight will be difficult to determine due to the rest of the ring.

Antoinette Boulay is a writer and webmaster at <http://Pearl-Necklace.Info> where you can get a good education in Pearl Necklaces.

+++++

## Precious Gems: The History of a Concept

Copyright © Richard W. Wise 2003

*"The clumsy modern category of "precious" stones has little relevance when applied to the ancient world."*

Jack Ogden, 1982

### Preciousness: ancient concept or modern prejudice?

The idea that a given material is, by nature, precious, is a relatively recent one. The idea that one material was precious while another was merely semi-precious simply did not exist in ancient times. The idea of dividing gemstones into the categories of precious and semi-precious is a relatively modern idea. The word semiprecious itself entered the English lexicon only in the nineteenth century.



*Ancient fake! Egyptian engraved faience (glass) bead from the reign of Amenhotep III, 1391-1353 BC, dyed to resemble lapis lazuli. Faience beads have been found in many fine pieces of ancient jewelry, often with natural gemstones such as turquoise and coral. © 2001 Christie's Images*



Roman carnelian cameo circa the second century AD. One of the most coveted gems of antiquity, today carnelian is consigned to the semi-precious backwaters. Christie's Images

For example, in ancient Egypt, color, not type of material, was evidently the primary criterion of value. Egyptian taste in jewelry favored solid bars of vivid color, particularly blue and orange. Opaque and semi-translucent gems such as lapis lazuli, coral, turquoise, carnelian, and sard were highly valued. Masterpieces of ancient jewelry, such as those made for the boy king Tutankhamen, were beautifully worked in gold by skilled craftsmen. These pieces included gems such as turquoise and carnelian alternated

with stones of faience (a ceramic glass of melted feldspar) dyed to resemble a specific gemstone; in short, a fake! Was this due to a rarity of materials? It was obviously not a question of price. Were the Egyptian craftsmen misled by clever forgeries? Doubtful! The Egyptians simply placed a higher value on visual beauty than on the pedigree of the materials themselves.

This seems odd to us today with our preconceived notions of what is precious and what is not. Would Cartier or Tiffany consider offering gold jewelry set with glass, plastic, or synthetic gems? Yet the glassmakers of ancient Egypt enjoyed royal patronage. The point is that preciousness was not an idea tied to the use of gemstones that today are called precious. The popularity of gem materials has waxed and waned over the millennia. The truth of this becomes clear when we consider that much of the gem wealth found buried with the pharaohs of Egypt, at Babylon, and in the royal tombs of ancient Sumer is what many today still label as semi-precious.

Descriptions in the Bible also clearly demonstrate that the ideas of the ancients concerning the hierarchy of precious materials differed markedly from our modern view. In Revelation (21: 9-21) an angel describes the heavenly city of Jerusalem as "having the glory of God; and her light was like a stone most precious, even like a jasper stone clear as crystal. . . . And the foundations of the wall of the city were garnished with all manner of precious stones. The first foundation was jasper; the second, sapphire; the third, chalcedony; the fourth, emerald; the fifth, sardonyx; the sixth, sardius; the seventh, crysolite (topaz); the eighth, beryl. . . ." Of the twelve gems named, only emerald and sapphire figure as precious today, and although emerald was known to the ancient world, we know that sapphire was almost certainly the ancient name for lapis lazuli.

It is important to keep in mind that beauty was not the sole reason gems were valued in the ancient world. From earliest times gems have been esteemed as religious symbols, as talismans, as symbols of rank and status, and for their purported medicinal value.

In the Egypt of the pharaohs, carnelian symbolized blood. In ancient Sumer lapis lazuli represented the heavens. In classical Greece a man supposedly could drink his fill and remain sober if he drank his wine from a cup made of amethyst. To avoid eyestrain, the Roman emperor Nero reputedly viewed gladiatorial contests through a lens made of emerald. In ancient China, badges made of gem

materials were used to denote rank. Mandarins of the first rank wore red stones such as ruby and red or pink tourmaline; coral and garnet were reserved for bureaucrats of the second rank. Blue stones such as lapis lazuli and aquamarine symbolized the third rank. Mandarins of the fourth rank wore rock crystal. Other white stones indicated the fifth rank. Here again, color, not gemstone type, seems to have been the defining criterion.

Gems were also valued as much for their talismanic or medicinal value as for their beauty. These arcane beliefs and associations persist today, but they no longer have any effect on value or preciousness of gemstones, particularly as judged in the marketplace.

#### Seal stone engraving: value added

The carving of gems became an important art in ancient times with the introduction (circa 3500 BC) of seal stone engraving by the Babylonians. Gemstones were engraved intaglio with mythical scenes which appeared in relief when the stone was impressed in clay tablets. These engraved gems became the official signatures of kings, nobles, and high-ranking officials of the court. In ancient Mycenae, seal engraving reached a high degree of sophistication by the late Bronze Age. A group of seals recovered from Mycenaean shaft graves at Dendra (on the Greek mainland) shows a mastery of technique as well as a lyric sensibility equaled only by the Greek masters of the classical period and never since.

Seals were first made of relatively soft stones such as serpentine and steatite; these stones could be carved using bronze tools. However, by the twelfth century BC, hard stones such as agate became the gems of choice. Engraving these stones (over six on the Mohs scale of hardness) required a more sophisticated technique: even iron, the hardest metal then known, was too soft to carve hard stones such as carnelian.



Minoan/Mycenaean carnelian seal stone (1450-1300 BC) shows a cow suckling her calf. In early times, the use of seals was limited to the aristocracy. This masterwork of the engraver's art demonstrates that exceptional craftsmanship was often applied to mediocre gem material (carnelian). © 1999 Christie's Images

iron, the hardest metal then known, was too soft to carve hard stones such as carnelian.

Carnelian, the eighth stone of the breastplate of the Tabernacle's high priest described in the Biblical book of Exodus, was the gem of choice for engravers from the Bronze Age until late Roman times. Fully fifty percent of Greek seals and more than ninety percent of Roman intaglios were carved of carnelian. Today the stone barely makes the semi-precious list, but carnelian was unquestionably one of the precious stones of antiquity.

By classical times seals were in use throughout the lands bordering the Inland Sea. Experts in this craft enjoyed high status. Some of the best quality gem material is found in Mycenaean gems unearthed at Aidonia on the Greek mainland. These are carved in the finest translucent layered carnelian. They are the exception: by Roman times, some of the finest masterworks of the engraver's art were executed in relatively mundane pieces of carnelian and sard, demonstrating that the beauty of the material itself was at best of secondary importance. The real preciousness of the gem lay in the artistry and the quality of execution.

The Middle Ages: shifting values In medieval Europe, superstitions about the religious, talismanic, and medicinal properties of gemstones were accepted without question. Many of these beliefs had been passed down from ancient times in the writings of the Roman scholar Pliny and repeated in the works of the seventh century bishop Isidore of Seville. The medieval mind, obsessed as it was with questions of life and death, proved fertile ground for the growth and dissemination of such beliefs.

In those times, each gem was valued for its ability to protect its wearer from evils both physical and spiritual. "Coral, which for twenty centuries or more was classed among the precious stones," cured madness and assured wisdom. Emerald was considered to protect the wearer against all manner of enchantments. Carnelian drove out evil and protected the wearer from envy. Lapis lazuli was a sure cure for quartan fever. Sapphire also offered protection from envy and was thought to attract divine favor. Chrysoprase protected the thief from hanging.

So universal was the belief in the magical and medicinal qualities of gem materials in the Middle Ages, that it is impossible to discuss the value of gemstones without reference to them. Was the emerald sought after for its beauty, or for its supposed value as a treatment for diseases of the eye?

#### **Diamond: the invincible**

Diamond's fluctuating popularity on the gemstone hit parade further illustrates the point. Diamond was unquestionably the preeminent gemstone in India from as early as the fifth century BC. India in those far-off times was the only source of diamond, and had a flourishing gem-trading industry. The Romans, too, placed diamond at the very pinnacle of preciousness. By early medieval times in the West, however, diamond had fallen to number seventeen on the bestseller list. As late as the sixteenth century, the celebrated Italian goldsmith Benvenuto Cellini placed diamond third after ruby and emerald, with a price of only one eighth of what a ruby would bring. Writing in 1565, Garcia ab Horto, an early European traveler who described his trip to the gem fields of India, placed diamond at number three, but considered emerald, not ruby, to be the most precious gem of all.

One prominent scholar, Godeherd Lenzen, maintains that diamond's early popularity in the western world was based not on its beauty, but on its durability and hardness. The characteristics that make diamond so desirable today — brilliance, dispersion, and transparency — are qualities that occur naturally only in perfectly formed diamond crystals. In Roman times, the technology did not exist to fashion or polish diamonds. Transparent well-formed crystals either were retained and sold in India (where they were highly valued) or bought up along the trade route before they reached Rome. Thus, due to the rarity and desirability of fine crystals and the length of the trade route between India and Rome, the uncut rough stones that made their way to the ancient Mediterranean

were of inferior quality; the attributes of beauty which make the diamond so avidly sought after today were necessarily unknown to the ancient Romans. Therefore, Lenzen argues, diamonds could not have been



*Natural bipyramidal diamond crystals. In earliest times before the technology existed to cut and polish diamonds these natural six-pointed crystals were highly sought after for their perfect form, transparency and brilliance.*

valued for beauty at all, but must have had some other attraction. The Greeks named diamond adamas, a word that means invincible. This obviously relates to the gem's legendary hardness, a virtue much admired in imperial times. Was it diamond's "invincibility" that made it so attractive and valuable to the Romans?

To be fair, diamond regained its preeminent position in the gem world by the close of the seventeenth century. The Portuguese subjugation of Goa in west-central India opened up more direct trade routes, increasing the flow of finer diamond rough to the West. The necessary technology for revealing the diamond's unique beauty — polishing, cutting, and cleaving — was in place in Europe by the middle part of the century. Diamond's return to preeminence is also a direct result of the development in the late seventeenth century of the Peruzzi cut, the precursor of the modern brilliant cut. This important technological advance in gem cutting unleashed, for the first time, diamond's full potential — the astonishing brilliance and fire for which the gem is justly revered.

*Excerpts from the book: Secrets of the gem trade (the connoisseur's guide to precious gemstones), By: Richard W. Wise. Brunswick House Press. ISBN 0-9728223-9-9. From <http://www.ganoksin.com/borisat/nenam/rw-1.htm>*

#### **The Mystery Opal Miner - Carney Jimmy**

About 100 hundred years ago there was an old opal miner in south-west Queensland who was too mean to buy meat. He used to tether lizards and eat them. Also, according to one report, he salted and ate his saddle horse after it died of old age. He was a Scot and a miser, and the only name by which he is known to history as 'Carney Jimmy'. Carney is the bushman's name for the frill-necked lizards that formed part of his staple diet. It is said he had learned to eat them whilst living with the Aborigines.

Jimmy was tight-lipped and never disclosed how much he got out of his mine. Even today there are people who believe a fortune lies buried somewhere on Carney Jimmy's claim. He was as silent a man as ever worked on an opal field, though rumor had it he was well educated. He never volunteered any information about himself, yet he was liked, as far as he allowed anyone to like him.

His accent betrayed his Scottishness and the only letters he received were from Scotland, but no-one ever knew from who. He also received Scottish newspapers and took a solemn interest in the land of his birth — indeed, far more than he took in Australia. His mine, 'The Little Wonder', produced an enormous amount of crystal opal. Since Carney Jimmy's claim joined it, the miners always supposed he had won great wealth too. He was not at all ashamed of his diet of lizards, in fact, he used to say they were very energizing.

He was never known to buy meat, eggs or flour, but once or twice a year he bought a little rice and some tea. In season, he would go eat goanna eggs and he used to boil pig-week, which he called bush cabbage. Jimmy was reputed to be lucky and he certainly worked hard. One of the great differences between him and the other miners was that he worked alone.

To everyone's astonishment, he once accepted an offer to go halves in a partnership with Joe Bridle. They worked a new mine together, the Yellow Nell, and for a while Jimmy lived a more normal life, eating damper and even bacon and eggs. The patch of opal produced a nice parcel of opal in which Bridle sold his share for \$280, but Carney hung onto his. He was never known to sell opal. When the opal gave out in the mine, Carney drifted back to his solitary life and his tethered lizards.

Curiosity about Carney's secrecy became so great that a close watch was often kept on him. No one intended to steal his opal, at least not whilst he was still alive, they simply wanted to know about it. He was so secretive that no many of the miners often said only the desert stars and dingoes would ever know where he hid his treasure.

Strange noises seemed to come from Carney's claim at night. The most frequent noise was the muffled thud of a pick on sandstone. Often men crept under cover of darkness to see what

was going on, but as they got near to Carney's claim, the noises would stop. If Carney had heard something approaching, he had phenomenal hearing. It seemed more likely he had a sixth sense that warned him of people coming to secretly watch him. Yet often, as the intruder left, the thudding would begin again.

Carney also made mysterious night trips on his rather peculiar horse. People on the filed believed he was taking opal to a rendezvous in the darkness. Carney's horse was a brumby of sorts whose breeding had run out many years earlier. He was practically hairless and toothless and in some ways his life bore a resemblance to that of his master.

Like Carney, his horse simply appeared on the field one morning. Nobody knew where he came from and Carney offered no information. The horse had never been in the district before. Generally, Carney kept the horse 15 kilometers away and every now and then would bring him back to camp. Carney always rode him at night on his strange journeys. Was it to sell opal or to hide it? No-one ever found out. Wherever he went his hiding place was not close at hand, for sometimes he would be away three or four days. A few men tried to track him but they always failed.

Eventually, one night the horse died. People said he had long outlived his usefulness and Carney Jimmy had killed him for food. It was certain that about the time the horse died, Carney had a change of diet. A large amount of salted meat was strung out to dry between the mulgas. Carney claimed it was kangaroo meat, but old hands said it was Carney's horse.

He did not outlive his horse very long. Peter Nurra, an Aborigine who seemed closer to Carney than anyone else, found him lying of the ground near his camp. He told Nurra that he had been bitten by a snake, but would be alright as he was going to make strong a strong herbal tea that would 'fix him up'. Carney died near the clump of mulgas to which he used to tether his horse.

So the story of this silent, mysterious Scot ended. Curiosity about his treasure lived on and he had scarcely been buried before his camp was torn apart in the hectic hunt for his riches. Carney had hidden it well, for it was never found. Today, only the desert stars know its hiding place in those lonely, dingo-infested hills.

© Copyright: *A Journey with Colour - A History of Queensland Opal*. Len Cram 1998. From <http://www.opalauctions.com/opal-stories.php>.

+++++

## Safety Article - Sunburns and Skin Cancer

*By George Browne, SCFMS Safety Chair*

Summer is a great time for outdoor activities, but with summer we also get heat and sunshine, which can be both wonderful and dangerous. In our geographical area we get an excess of both. However for this article I want to concentrate on sunshine or more specially our exposure or overexposure to this danger.

It may take less time to get sunburn than you realize. Some TV stations report a Sun Intensity Index with the weather. That index is the number of minutes it takes for fair unprotected skin to redden. It is true fair skin will burn quicker than dark skin, but not by much. Usually skin damage will occur within 20 minutes of constant exposure and even a shorter time in higher elevations. Sunburns are miserable and can and do lead to skin cancer. Skin cancer is one of the fastest growing forms of cancer encountered today and some forms are deadly.

How do you avoid this potential killer? By avoiding direct sun exposure to the skin. Wear long sleeve shirts and pants, (not shorts), and a hat. Use sunscreen with at least a SPF of 15. The SPF is the Skin Protection Factor. How do you use these numbers? You start with the Sun Intensity Index or the time it takes you to burn. If you burn in 20 minutes then that times the SPF of the sunscreen to determine the maximum time the sunscreen will give protection. Example: If you burn in 20 minutes, your SPF 15 sunscreen will protect you for 300 minutes or 5 hours provided the sunscreen is not washed or rubbed off. The best advice is reapplying the sunscreen often.

Let me add something about the proper hat to wear. Skin cancer on the top of the ears is much, much more likely to occur on men than it is on women. Why? Because men often wear baseball or "give me" hats that leave the top of the ears exposed to the sun. Women's ears are more likely to be protected by their hair or they wear wide brim hats. So, men loose those billed caps when you are rockhounding and wear wide brimmed hats and use screen on you ears, especially on the left ear. Why? Because men will often drive with the window down looking for rocks and exposing their left ear to direct sunlight.

Enjoy summer, but protect yourself from excessive heat and exposure to the sun. For more detailed information on these subjects, go to the AFMS web site: [HYPERLINK >www.amfed.org<](http://www.amfed.org) and click on the Safety link and look for sun related articles. Unprotected sun exposure over time can cause cancer, which could result in death.

So be aware, take precautions and be safe.

*From the May-June SCMS Newsletter.*

+++++

## September 2006 Gem & Mineral Shows

**1-4--FORT BRAGG, CA:** 44th annual show; Mendocino Coast Gem & Mineral Society; Town Hall, Main and Laurel; Fri 10-6, Sat. 10-6, Sun. 10-6, Mon. 10-4; free admission; contact Don McDonell, 643 N. McPherson, Fort Bragg, CA 95437, (707) 964-3116.

**8-10--ONTARIO, CA:** Show; Gem Faire; Ontario Convention Center, Exhibit Hall B, 2000 Convention Center Wy.; Fri. 12-7, Sat. 10-7, Sun. 10-5; \$5 weekend pass; contact Yooy Nelson, (503) 252-8300; e-mail: [info@gemfaire.com](mailto:info@gemfaire.com); Web site: [www.gemfaire.com](http://www.gemfaire.com).

**16-17--JACKSON, CA:** 6th annual show and sale, "Tailgate Gemboree"; Fossils For Fun Society; Kennedy Gold Mine, Hwy. 49 and Kennedy Mine Rd.; Sat. 9-5, Sun. 9-5; free admission, \$2 parking; indoor show, outdoor dealers and tailgaters, bargain fossil table, live rock and fossil auction Sat., mine museum and gift shop; contact Dan Brown, (209) 296-6466; e-mail: [fossilsforfun@hotmail.com](mailto:fossilsforfun@hotmail.com); Web site: [www.geocities.com/fossilsforfunsociety/index.html](http://www.geocities.com/fossilsforfunsociety/index.html).

**16-17--PASO ROBLES, CA:** Show, "Rockhound Roundup"; Santa Lucia Rockhounds; Pioneer Park and Museum, 2010 Riverside Ave.; Sat. 10-5, Sun. 10-5; free admission; dealers, demonstrators, displays, kids' activities, silent auction; contact Joyce Baird, P.O. Box 1672, Paso Robles, CA 93447, (805) 462-9544; e-mail: [liljoysee@charter.net](mailto:liljoysee@charter.net).

**16-17--REDWOOD CITY, CA:** 40th annual show, "Harvest of Gems and Minerals"; Sequoia Gem & Mineral Society; Community Activities Bldg., 1400 Roosevelt Ave.; Sat. 10-5, Sun. 10-5; free admission; gem dealers, jewelry, minerals, fossils, rocks, games, displays, food, silent auction, raffle, door prizes, educational demonstrations, kids' activities; contact Carol Corden, (650) 248-7155; e-mail: [ccorden@earthlink.net](mailto:ccorden@earthlink.net).

**22-24--SAN BERNARDINO, CA:** Tailgate show; Orange Belt Mineralogical Society; Western Regional Little League Ball Park, 6707 Little League Dr.; Fri. 9-6, Sat. 9-6, Sun. 9-4; free admission; silent auctions, raffle, educational demonstrations for kids, OBMS Boutique; contact Armando Silva, 2595 Esperanza St., San Bernardino, CA 92410, (909) 884-7900; e-mail: [obmsworkshop@yahoo.com](mailto:obmsworkshop@yahoo.com); Web site: [www.geocities.com/obmsworkshop](http://www.geocities.com/obmsworkshop).

**22-24--SAN RAFAEL, CA:** Show; Gem Faire; Marin Center Exhibit Hall, 10 Avenue of the Flags; Fri. 12-7, Sat. 10-7, Sun. 10-5; \$5 weekend pass; contact Yooy Nelson, (503) 252-8300; e-mail: [info@gemfaire.com](mailto:info@gemfaire.com); Web site: [www.gemfaire.com](http://www.gemfaire.com).

**23--LOS ALTOS, CA:** Annual show, "Recreation with Rocks"; Peninsula Gem & Geology Society; Rancho Shopping Center, Foothill Expressway and S. Springer Rd.; sat. 9:30-4:54; contact Jennifer Olsen, (408) 243-7025.

**23-24--MONTEREY, CA:** 47th annual show; Carmel Valley Gem & Mineral Society; Monterey Fairgrounds, 2004 Fairgrounds Rd.; Sat. 10-6, Sun. 10-5; adults \$3.50, children free with adult; children's activities, demonstrations, bead stringing, fossil impressions, silver jewelry making, grinding and polishing gemstones, sphere making, door prizes, exhibits; contact Janis Rovetti, 1047 Roosevelt St., Monterey, CA 93940, (831) 657-1933; e-mail: [fjrovetti@sbcglobal.net](mailto:fjrovetti@sbcglobal.net); Web site: [www.cvgms.org](http://www.cvgms.org), (828) 675-9281, or Susan and David Hughes, (828) 464-3278.

**23-24--SAN DIEGO, CA:** Annual show; San Diego Lapidary Society; Bernardo Winery, 13330 Paseo Del Verano Norte; Sat. 10-4, Sun 10-4; free admission; gems, minerals, fossils, beads, jewelry, gemstone identification, lapidary and jewelry demonstrations, one-of-a-kind jewelry and lapidary work, loose and set gemstones, silver and gold jewelry, minerals, fossils, beads, opals, jade, lapis rough, slabs and cabochons; contact Kim Hutsell, (619) 294-3914; e-mail: [info@sandiegolapidarysociety.org](mailto:info@sandiegolapidarysociety.org).

**True Blue Opals Pty Ltd (AUST)  
Lightning Opals (USA Agent)**

*Australia Contacts*  
Ph: 61 755 949612  
Fax: 61 755 949760  
Mobile: 61 419785454

*USA Contacts*  
Ph: 520 360 5255  
Fax: 520 299 2357  
Cell: 817 235 6578

Email: [salopals@aol.com](mailto:salopals@aol.com) / [lightningopals@aol.com](mailto:lightningopals@aol.com)

*Specializing in:*  
**Lightning Ridge Black Opal Rough and Cut  
Opalized Fossils  
Inlay Crystal**

*We also carry:*  
**Queensland Boulder Opal  
Koroit/Yowah Opal  
White Opal - rough and cut  
Silver / Gold Jewelry  
Doublets / Triplets**

**Wholesalers of Australian Opals**

**Custom Creative Gem Cutting  
Stan M. McCall  
Lapidary and Jewelry Artist**

Custom Jewelry Designs & Repairs  
Gemstone Cutting & Repolishing  
Diamonds, Opals, Colored Stones

**(714) 220-9282**  
6029 Orange Ave. Cypress, CA 90630  
<http://home.earthlink.net/~custom-creative/>  
[custom-creative@earthlink.net](mailto:custom-creative@earthlink.net)  
*Tuesday-Saturday 10am-3pm. Appointments Also Available*

**Australian Opal Imports**

*"Specializing in the Finest"*  
**Black Opal from Lightning Ridge  
Rough and Fine finished stones**

**Gene and Loretta LeVan**

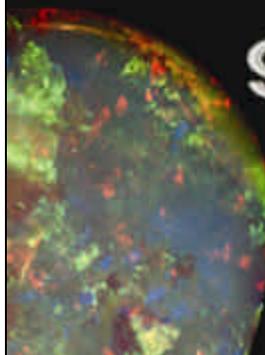
Phone: (562) 621-1805, FAX: (562) 621-1806  
<http://www.australianopalimports.com>  
[fineblackopal@sprynet.com](mailto:fineblackopal@sprynet.com)  
2201 East Willow St. D338, Long Beach, CA 90755

**~ Wired Artist Opal Creations ~**

<http://www.wired-artist-jewelry.com/opal.html>

[wired-artist@wired-artist-jewelry.com](mailto:wired-artist@wired-artist-jewelry.com)

**for people who like gemstones**



**gemfilm  
channel**

**[www.gemfilmchannel.tv](http://www.gemfilmchannel.tv)**

Thank you for continuing to support your American Opal Society!

# American Opal Society Membership Renewal

TYPES OF MEMBERSHIP		DUES / FEES)	AMOUNT PAID
<u>DUES:</u> <u>SELECT ONE</u>	All <u>US</u> Addresses including Alaska and Hawaii	\$25	
	<u>International Members</u> All addresses <u>outside</u> of US Addresses	\$35	
<u>ADDITIONAL BADGES</u> \$5.00 each (First Badge <u>free</u> when joining)		\$5	
<u>ONE TIME INITIATION FEE</u> All <u>New</u> members		\$10	
<u>SENIOR DISCOUNT</u> Age 65 or over deduct \$5		-\$5	
<b>TOTAL PAID DUES, less Senior Discount plus Badge plus Initiation Fee (if Applicable)</b>			

Please make check or money order payable to "**American Opal Society**". Mail payment and application to:  
**American Opal Society; PO BOX 4875; Garden Grove, CA 92842-4875**  
 An optional, quicker method of payment is via the **Internet** using **PayPal.com**. To pay, just log onto your PayPal account and "Send Money" to the AOS account, **membership@opalsociety.org**. There is no transfer charge!

NAME		
BUSINESS NAME		
ADDRESS		APT # or PO BOX
CITY		STATE
ZIP or POSTAL CODE		COUNTRY (IF OUTSIDE USA)
PHONE - Home ( )	PHONE - Business ( )	FAX ( )
E-MAIL		
WEBSITE		
OCCUPATION		HOBBIES AND INTERESTS

**NAME BADGE ORDER FORM:**  
 PLEASE PRINT NAME AS YOU WISH IT TO APPEAR ON YOUR BADGE using up to two (2) lines of text for your name, nickname, or name of your opal related business.

**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.

- Address   
  Phone   
  E-mail   
  Website   
  E-Mail the Opal Express Newsletter instead of Postal Mail  
 Include my name & address on a list provided to the Dealers selling at our Annual Opal & Gem Show.

Please sign here: \_\_\_\_\_ Date \_\_\_\_\_

The Opal Express is published monthly by  
 The American Opal Society.  
 Copyright 2006. All rights reserved.  
 Non-Commercial Reprint Permission Granted Unless Otherwise Reserved.  
**Editor-Jim Pisani**  
 Please address all inquiries and exchange newsletters to:  
**The Opal Express C/O**  
**Jim Pisani**  
**P.O. Box 4875**  
**Garden Grove, CA 92842-4875**  
 E-mail: [editor@opalsociety.org](mailto:editor@opalsociety.org)

**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 #09  
September 2006**

TO:

**Some Topics In This Issue:**

- Wes Roth Wins Jewelry Contest
- The Starfire Opal Mine is Active
- Famous Opals: The Aztec Sun God
- Opal Lore
- Francis Lau's Talk on Diamonds
- Peruvian Opals - How to Spot a Fake
- The History of Precious Gems
- Mystery Opal Miner - Carney Jimmy
- Safety Article - Sunburn

**Important Info:**

**Board Meeting  
September 5<sup>th</sup>**

**General Meeting  
September 14<sup>th</sup>**

Lecture:

**Daniel Toledo on Opal and  
Animals in Jewelry**

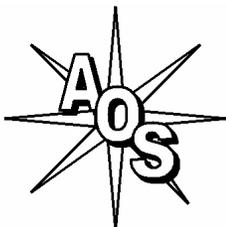
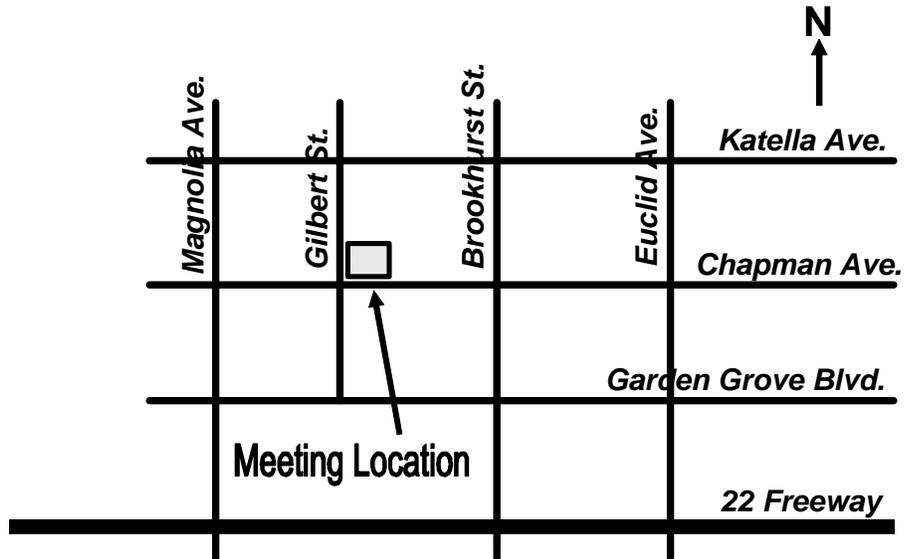
— **GENERAL MEETINGS** —

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

## September 14th: Daniel Toledo on Opals and Animals in Jewelry Designs



**The American Opal Society**  
<http://OpalSociety.org>

Eugene LeVan	President	(562) 621-1805	email: fineblackopal@sprynet.com
Jim Lambert	Vice-President	(714) 891-7171	email: jlamb777@yahoo.com
Russ Madsen	Treasurer	(562) 884-2254	email: chairman2rgm@charter.net
Jim Pisani	Editor & Webmaster	(562) 797-5239	email: editor@opalsociety.org