

THE ROCK RATTLER



VOLUME 32 NO. 3

MARCH, 2007

PUBLISHED MONTHLY BY THE

**THE ARK-LA-TEX
GEM AND MINERAL SOCIETY**

**PO BOX 3366
BOSSIER CITY, LA. 71111**



ROCKY

NOTICE NOTICE NOTICE NOTICE

MEETING FOR MARCH WILL BE AN EATING MEETING. 6-6:30 AT BEARDS CATFISH KING BOSSIER CITY

— — — — PRESIDENTS MESSAGE — — — —

Greetings,

Please notice that our March 6th meeting is an eating meeting. I have made reservations for the large room at David Beards Catfish King restaurant in Bossier City, which will enable us to fellowship and eat together.

On March 2-3 (Friday and Saturday) there will be a science fair for Junior and Middle school students at the Bossier Civic Center. The event begins at 9AM. Our club judges the earth sciences projects only. We have three judges in place, however if any of our members would like to participate, please take the opportunity to do so. On Saturday morning the Club will be award-ing prizes and a certificate for the top three projects, as selected by our judges. This is a lot of fun! It is very interesting to view the projects these students design and put together. They also love to talk about their projects.

Our Club members are diligently looking for a Club building. Having our own building would enable us to have a meeting place of our own, as well as classrooms and space for our lapidary equipment. This will allow us to get back to teaching our art to our members, and others.

I would like to extend a warm welcome to our new members. Hopefully, at our eating meeting, we can get to know each of them, and find out what they love about lapidary.

To conclude my message - I would like to thank all of our officers and volunteers for all of the effort and work that you extend for the benefit of the Club.

If any of you need directions to David Beards, please feel free to call me at - 949-9765, or any of our officers.

Rock on - Edna



**2007 CLUB DUES ARE PAST DUE
THIS WILL BE YOUR LAST ROCK RATTLER
IF YOUR DUES ARE NOT PAID IMMEDIATELY**

Many of us have quartz crystals that we have collected over the years, and who knows, we may have some valuable material. Check your quartz collection again. The following is from ROCKHOUNDING ARKANSAS and is printed by permission of the authors. Ed.

Rainbow Quartz

by Mike Howard

OH, THOSE RAINBOWS! I have seen many internally fractured quartz crystals during my collecting years, but it wasn't until just a few years ago that I heard someone making a fuss over "rainbow" quartz. At the time, I wondered what the hoopla was all about. It's just a quartz crystal with an internal fracture, either of natural origin or induced by the careless practice of removing the crystal too quickly from a hot acid bath, right?

But since then I have had some interesting conversations with various collectors and learned some additional facts. Ken Silvy, who digs herkimer diamonds (double terminated quartz crystals) several months a year up in the Middletown, New York area, told me about how he has to handle the crystals when he takes them out of the ground. He keeps them in the cold clay and places them in a bucket of cool water in the shade. He says he has seen many first-time collectors ruin crystals by wiping off the clay and putting them in the sun to dry. POP! CRACKLE!! The crystals heat up rapidly on the outside while the inside is still cold. Thermal stress builds up until they fracture! They must warm up very slowly to prevent the thermal stress building to the point of overcoming the internal strength of the crystal.

Some time later, Ron Coleman told me an interesting and somewhat sad story relating to a specimen from a tremendously large pocket of crystals he and his brother Jimmie dug near Jessieville in Garland County, Arkansas. Some of these crystals were 3 feet in length and 1 foot in diameter. One in particular was clear from the termination to over one-half its length! Within a minute after it was removed from the cold ground, a fracture appeared about a foot from the base. They quickly covered it with blankets, but it was too late. While they watched in amazement (and disappointment as they saw \$'s flying out the window!), the fracture grew up the length of the crystal to within 6 inches of the termination. To prove his point, Ron took me over to Jimmies' backyard, pulled back some blankets and showed me the specimen!

After these conversations, I became seriously interested in finding some specimens of "rainbow" quartz for further examination. Most crystals that I have seen that show rainbows were interesting but not all that attractive. But then, while on a trip visiting quartz mines, shops, and miners with my wife over the Labor Day 1999 weekend, I came across the one specimen exhibiting this feature that I knew I had to buy. It was at Sonny Stanley's shop on a table with many other specimens of natural light smoky quartz. Sonny told me he had recently purchased all this smoky quartz from Danny Rickard, who had recently dug it from a site near Paron, Arkansas. After careful examination, I discovered that most of the specimens were badly damaged during digging.

(continued on page 9)

February, 2007 Minutes

Dwight House gave a presentation on our “new and improved” web site. Dwight has made significant changes from the previous site. Please be sure to visit. A lot of preparation and work went into the web site and it is beautiful. Dwight says “it will be number one again this year.”

Bill and Joe are checking on an old fire station that has been donated to the Bossier School Board for potentially a new meeting/class room. If you know of any places that could possibly fit our needs, please let one of the board members know. We would require approximately 1200 square feet, as well as the normal things such as water and electricity.

Robin House made a motion, which was seconded by Bill Hart to use the balance of the funds remaining from the December auction to build a display case for Sci-Port. They still have the previous case we had donated containing various Louisiana minerals. The Sci-Port folks requested something with fossils. Any Club members willing to donate fossils contact Ike for information. A card will be in the case reading “On Loan from the Ark-La-Tex Gem and Mineral Society.”

Ann Talbot showed some bracelets she had made. Don Talbot showed a rock polisher he had made, and Cody Stewart showed a gem tree he had made.

The March meeting will be an “eatin’ meetin’”. It will be held at the Catfish King on Village Lane in Bossier at 6:30.

If the Club is able to obtain classroom facilities, what classes would be of interest to members? This question was posed at the meeting and the following subjects were given. If you have additional interests, please contact Gail George at 925-6531. I will pass that information along.

Wire Wrapping	Cabochons	Silver Solder	Casting
Silver Smithing	Beading	Faceting	Glass Fusion
Intarsia	Gem Setting		

Respectfully Submitted,

Gail George

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1. A bicycle can't stand alone because it is two-tired.
 2. What's the definition of a will? It's a dead giveaway.
 3. Time flies like an arrow. Fruit flies like a banana.
 4. A backward poet writes inverse.

SCRIBE - Jul-Sep 2005 via oct2005 ncg&ms

FACETING



FACETING - MARCH 2007

By

Joe A. Beasley

As I mentioned last month, we would talk a little about cements, epoxy, cyanoacrylate (instant glue), shellacs, and talk a little about Grit size and polishes. These subjects are not complicated but they become confusing at times. Most old timers like to use shellac sticks. They can be heated with everything from an alcohol lamp to a micro torch. I have even seen a propane or Presto-Lite Acetylene torch outfit (used). The key thing is to get the shellac to flow without burning. Burning the shellac will cause it to crystallize and not hold well. In using the shellac type, do not over-heat the stone, (but) it must be warm along with the Dop. Keep a little water around to cool your fingers when forming the wax. One of the things I like about shellac is if the stone was to separate from the Dop, the shellac will leave a memory imprint so you can reseal the stone without completely recutting the stone. Shellac is easy to remove or clean with alcohol. Cyanoacrylate (instant glue) is good when the application of instant glue is desirable. I prefer the Gel formula such (as) "Loctite". Other good cyanoacrylates are Duro, Hot Stuff, and Super "T" manufactured by Satellite City. These are to be used with an accelerator. Some cutters will use Epoxy or Shellac for the initial cut and then use instant glue or Hot Stuff once the stone is turned over. You can remove the stone from the Dop by heat or by putting it in the freezer as described above whether it is shellac, instant glue or Epoxy or by putting in ice water. Remember, do not heat the stone in excess. Some heat/cold sensitive stones cannot stand either in excess. One problem I used to have with instant glue was that it would always dry out on me.

A couple of things I have learned about cyanoacrylate (Instant Glue) as far as long time use and storage. First, I try to purchase the very smallest quantity I can get. From 1/3 oz. to 2 oz. If I am cutting quite about the same times, I will get a 2 oz. bottle, but here is the key. Place all unopened (new bottles) in the freezer at or below 32 degrees. This will double the shelf life. Store used bottles at normal room temperature. What causes cyanoacrylate to set-up especially opened bottles is "moisture". Do not put a pin in the nozzle, as this will cause condensation, which causes the cyanoacrylate to set. You can prolong the life of the opened bottle by putting it in a separate bottle that contains a desiccant. Desiccant takes the moisture out of the air. I always look in new shoeboxes because they will have little pillows of Desiccant in them. I take an empty pill bottle, several pillows of Desiccant and store my open bottle of instant glue. This will extend the shelf life for quite some time. To help keep the nozzle or stem open, you always tap the instant glue bottle or tube a couple of times on the table before you put the cap on. This will ensure it is always open. When using Epoxy, 330 or 430, which are my choices because they dry water clear. Ensure you measure equal parts of Resin and Hardener on to a disposable surface (I use a 3" X 3" piece of plastic sheeting or aluminum foil) and fold (stirring creates bubbles) with your favorite toothpick until well mixed.

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2006-2007 Club Officers**President Edna House**
949-9765**Vice-pres. Charlie Johns**
687-4929**Secretary Gail George****Treasurer John Autry**
390-9200**Rock Rattler Editor**Wilford House
200 Liberty Hill Dr.
Haughton, La. 71037
318-949-9765
wihouse@bellsouth.net**Board of Directors**Joe Beasley (1)
John Quade (2)
Ike House (3)
Plus all Club Officers**Show Chairman**Charlie Johns
Asst. Bill Hart**Dealer Chairman**Joe Beasley
318-949-0552**Webmaster**Dwight House
www.larockclub.com

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MEMBERSHIP INFORMATION

Individual Membership	\$15.00 per year
Couple Membership	\$20.00 per year
Family Membership	\$25.00 per year

Dues are due on October 1 of each year

Use Oils to Reinvigorate Gold and Silver Polishing Compounds

Most of the polishing compounds (Zam, Fabuluster, rouges, etc.) used to polish gold and silver come in sticks or bars that tend to dry out over a period of time and will no longer adhere well to the cotton or felt polishing buffs. To reactivate these compound bars and produce an even better shine than when they were fresh, purchase a small bottle of Spearmint, Wintergreen, Peppermint or Cinnamon oil. Apply a couple of drops to the bar and allow it to soak into the bar for 30 seconds to a minute before applying the bar to a spinning buff. The result will be that the compound will adhere to the buff instead of blowing off as dust and getting in your nose, and you will achieve a superior, longer lasting shine without tarnishing for a longer period. **A word of caution!** Read the label carefully to make sure it is 100% pure oil and **not** extract. The extract will not work and most of it contains alcohol that could ignite from the heat of polishing. Also, do not apply oil to cutting or bobbing compounds.

**Tip from Craig Kime by Paul Cinnamon from the Sooner Rockologist,
October 2004**

KID STUFF

1. What are the three major classifications of rocks? _____,
_____, _____
2. Quartz is a very soft mineral. T F
3. Name a type of igneous rock that floats. _____

SAFETY FIRST - HEARING SAFETY

by Bill Klose, AFMS Safety Chair

Hearing loss affects about 28 million people in the United States. About 10 million of these people received this damage as a result of exposure to loud noises. More than 20 million Americans are exposed to hazardous levels of noise on a regular basis that could result in Noise Induced Hearing Loss or NIHL. Occupational noise exposure is the most common cause of NIHL, but non occupational exposure, such as live or recorded high volume music, airplanes, automobiles and recreational vehicles, household tools and some appliances, are also major contributors to NIHL.

Very loud sounds of short duration, such as explosions, gunfire, or loud banging, can produce immediate, severe, and permanent loss of hearing. Longer exposure to less intense levels of sound over time exacts a gradual toll on hearing, initially without the person's awareness. The louder the level of noise, and the longer the duration of exposure, the greater the potential for permanent damage.

The best method for protecting ourselves from NIHL is to eliminate or reduce the intensity of the noise source and the time of exposure. The next best prevention method is to wear hearing protection in the form of ear plugs (disposable or fitted) or ear muffs when faced with potential exposure to noise.

Rock hounds are most commonly exposed to noise while in vehicles on the way to and from collecting sites. Some collecting sites contain industrial equipment that can generate considerable amounts of noise. When at these sites it is best to wear the same level of protection that the workers at the site are wearing, as the employer has determined the level of protection required for the protection of his employees.

Rock hounds also use hammers and even large portable gasoline engine powered diamond saws at collecting sites to recover specimens and should protect their hearing with ear plugs or ear muffs.

Back in the shop, hammers and rotating equipment such as diamond saws, grinding wheels, rock hammers, rock trimmers, etc., contribute to the noise level along with everyday activities around the house such as music, television, household appliances, and power equipment (such as lawn mowers). Consider wearing ear plugs or ear muffs when appropriate to prevent NIHL.

ON ROCKS

Rocks,
As contagious as chicken pox.

Once in your head
You'll love them till you'r dead.

Rocks, give it some mind,
For the essence of mankind.
Michael Arnold (12)

(continued from page 5)

If you desire your Epoxy to be a special color, the following instructions apply: when you initially measure Resin, add a few drops of regular food coloring in the mix and mix well. It will not affect the efficiency of the Epoxy as long as Resin plus Color equals the Hardener. When mixing large quantities, weigh the Resin plus Color must equal the Hardener. You can also use Indian Ink. This especially comes in handy working with Intarsia and Channeling.

As a safety note: Cyanoacrylate and Epoxy are safe. Always check the Material Safety Date Sheet (MSDS). You can always get on Web Site MSDSEARCH.COM. Some of these products can irritate the skin in the liquid form. Most Epoxies are non-toxic once cured. If there is a possibility of an individual being sensitive to such, always be safe. The safest thing is to wear protective Nitrile gloves, safety glasses and always work in a well-ventilated shop. If you use plastic casting, polyester resins and urethane, buy a respirator with the correct filters. A little history of plastics: It is for sure they are not new, unless any late 1800's from Horn, Amber and Beeswax. In early 1900's, a material called Bakelite was some of the first wildly used plastics, which are now considered Antiques.

If there are questions, let me know. If I am not familiar with your question, I will attempt to get you an answer. One other thing you need to be aware of is "DON'T EVER BURN EPOXY AND INHALE THE FUMES AS THEY ARE DEADLY!" I thought we could get all the way into grit sizes and polish but maybe I get too carried away on some other points. Our Editor likes to keep it short and to the point. Next month, we will discuss the aforementioned, lap speeds, pulleys, saw blades, as that most stones have to be sawed before faceting.

Ref: Faceting I by Joe A. Beasley; Hard Knocks (or Maybe Scratches) In Faceting Experiences by Joe A. Beasley;

Beads'N More by Joe DePietro

(cont'd from page 3)

but I managed to find 11 pounds of crystals that still had the terminations intact. I bought all that I thought were any good for \$100. In this batch was the one special crystal I saw that displays a spectacular rainbow. See picture.

The specimen weighs about one-half pound and has very little internal fracturing except for the one major fracture that is about one-half inch deep from one of the terminal major rhombohedral faces. The fracture parallels the rhombohedral face and forms an oval that measures about five-eighths inch by one-half inch. See picture.

I took pictures of the rainbow area with my digital camera and when looking at the close-up picture of the reflecting fracture was struck that I had seen this color pattern before - many times. I got out my old college optical mineralogy book and opened it up to the Interference Color Chart. There it was - staring me right in the face - the explanation of the color patterns of the rainbow crystal. I thought for awhile, but could not remember reading a scientific explanation of this natural phenomenon. So I decided I must write it down.

The Explanation

For years I had seen what happened when a single drop of oil landed on a wet concrete driveway or street. A rainbow of color appeared. I had recognized that this rainbow reflection of light was directly related to the thickness of the film of the oil floating on the water. I could see the orderly pattern of 1st order gray, then yellow, then orange, red, violet and blue starting from the thinnest edge of the oil film and progressing across thicker zones of the film. Then 2nd order colors appeared where the oil coating was thicker - blue-green, green, yellow, orange, red, blue. The pattern of colors was always the same, but the colors became more pastel with each rise of color order.

I also have seen many examples of natural lightly iron-stained quartz that display iridescence on the iron coating. This is due to refraction of light through a very thin surface film of iron oxide. General color bands of electric yellow, blue, green, and red are sometimes seen, but are irregular, thus generally preventing a pattern developed from gradual thickening or thinning of the layer. Rarely, a mineral specimen will be seen that has a very uniform iridescent color, such as all electric blue, green, yellow, or red. I have seen some examples of this occurring on specimens of Arkansas goethite from Polk County. Some examples of rainbow films on goethite, listed as turgite in old mineralogical texts, are known from a site in Garland County, Arkansas.

The same reflection explanation holds true for rainbow quartz, but the light interaction does not depend on this thickness of a coating of one substance on another, but instead it depends on the space between the walls of the fracture inside the crystal. The fracture contains a vacuum since it does not reach the crystal's surface at any point. In the photographed specimen, there are distinctive bands of 1st order colors on the outer band of the fracture and 2nd order colors into the center of the fracture. The center of the fracture, in this case, was the initiation point of the fracture during stress release. The fracture radiated out into the crystal in a planar direction until the stress was released, and the fracture died out before reaching the crystal's surface. I do not know what caused the specific location of the stress release point, but it could have been a tiny flaw, like an inclusion, in the specimen (continued page 11).

ANNOUNCEMENTS**UPCOMING SHOWS****MARCH****8-11 Deming, New Mexico (guided field trips)****23-25 Ada, ok****APRIL****7-8 Abilene, Tx.****28-29 Waco, Tx.****MAY****26-27 Fort Worth, Tx.**

Sign on to the internet at www.rockngem.com/showdates.asp for a complete listing of shows, contacts, addresses, etc.

December's Birthstone is Turquoise

Turquoise is one of the earliest used gemstones and is the one most worn in the United States. Turquoise is a soft, porous, opaque stone that ranges in color from blue to green. It is a mineral that is deposited by water solutions, and comes in various forms. It can be found in large pieces, but is most often found imbedded in veins of rock found near the surface. It is also found in the form of nuggets, and sometimes forms in cavities lined with quartz crystals.

The color of turquoise is determined by its ingredients. A combination of copper and aluminum produces a blue stone, while copper and iron can make it green instead. Some turquoise is one solid color, but not often, and that is what makes it so unique. Factors effecting the appearance other than color include inclusions, impurities, and the environment while it developed.

Most people think that turquoise is found only in the United States, but it comes from many locations around the world. It can be found in Tibet, China, Persia, Australia, Mexico, and South America as well as our own Southwest. Evidence of its use for jewelry dates back to the Egyptians, some 70 centuries ago. Turquoise jewelry was found on the arm of a mummified Egyptian queen.

Turquoise is a favorite stone of the Native Americans. Some Southwest turquoise mines were worked by them before the time of Christ. They create many beautiful styles of jewelry, setting the turquoise in silver. Many fortunate people own and wear this wonderful jewelry. Some have learned to create their own unique turquoise jewelry. Most turquoise is set in silver, however it also looks elegant when set in gold.

By Jon North Dec 2005 NCG&MS via SCRIBE

Shop Tips

Prevent scratches in flat silver

Anyone who works with flat silver in making jewelry discovers that sooner or later, every scratch in the metal has to be removed. Common transparent contact paper from the discount store (the sticky kind with the removable backing) is the answer. Place on each side of the silver sheet for protection. What's more, it accepts and holds permanent ink pen lines and will not pull loose when you are sawing through it.

Source: Rocky Tales, 9/05, via Agate Explorer, 4/05, via Rock Chips, 4/05

Removing iron stains

How can you get rid of the iron stains on your rocks? Try Super Iron Out®. Members of various clubs have found that it removes stains from quartz, dolomite, fire agate, chalcedony roses, some amazonite, ceramics, cloth and carpet. It works better than bleach does on rust because bleach oxidizes iron which turns to rust. Super Iron Out® de-oxidizes iron into a clear solution that easily rinses away and will not harm fabric as bleach does.

Rocky Tales, 9/05, via Breccia, 10/03, via The Hound's Howl, 10/04

Untangle a chain

A fine chain can be very frustrating when it knots. Put a drop or two of salad oil on a piece of waxed paper. Lay the knot in the puddle and work at it with two straight pins. The knot should come apart quickly.

From: Rocky Tales, 9/05, via Strata Gem, 7/04, via Rock Chips, 4/05

(continued from page 9)

The fracture developed on a rhombohedral crystal plane of the specimen. This plane is a known cleavage direction in quartz, but not often seen. The difference in colors across the fracture is caused by the thickness of the gap between the fracture walls. From looking at the Interference Color Chart, it appears that the widest portion of the gap (occupied by a vacuum in this case and located in the center of the oval rainbow) is a little greater than 0.12 mm, taking the birefringence of quartz as 0.009 from the chart. It runs out to 0.01 near the edge of the fracture before the fracture displays no color and where the fracture dies out.

Maybe it looks magical, but a little knowledge of optics, optical mineralogy, physics, and optical phenomena are all that is necessary to explain this "mystical" property. By the way, this specimen is not for sale or trade since it is the best and most symmetrical display of a rainbow I have ever seen inside a quartz crystal!

Contact the authors of Rockhounding Arkansas Revised Sept 1999

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(Editors note: Go to his website for some fantastic photos)

The Ark-La-Tex Gem and Mineral Society meets at 6:30pm on the 1st Tuesday of each month at the: Bossier Parish History Center 2006 Beckett St Bossier City, La. 71111

FROM:
ARK-LA-TEX GEM AND MINERAL
BOX 3366
BOSSIER CITY, LA. 71111

The Rock Rattler is a monthly publication of the Ark-La-Tex Gem and Mineral Society located in Bossier City/Shreveport, Louisiana. The society is affiliated with the American Federation of Mineralogical Societies (AFMS) and the South Central Federation of Mineralogical Societies (SCFMS). Permission is given to reproduce this document all or in part with proper credit given. Articles with no byline are by the editor.

The Ark-La-Tex Gem and Mineral Society is a nonprofit educational organization devoted to promoting interest in the various earth sciences, particularly the art of lapidaries and their related fields. Informational speeches presented at area schools and the presentation of awards and cash prizes at the Public School Earth Science Fair are two of the ways the society achieves its goals. Another contribution to the community is the annual show, held at the Bossier Civic Center, 620 Benton Road, in Bossier City. This "Jewelry, Gem, & Mineral Show" functions as a fund raiser for our group and a venue for the demonstrations of gold and silver casting, jewelry making, bead stringing, faceting, cabochon making, and flint-knapping (the art of flaking stone tools such as arrowheads). The monthly meetings (including programs of interest to rockhounds), information from the Rock Rattler, and jewelry making classes through Bossier Parish Community College complete the educational objectives of the club.