

# GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB

JAN - FEB 2010

## *the Prez Sez ...*

HAPPY NEW YEAR TO ALL! This cold January morning brings me to write my January president's message and, traditionally at this time of year we make resolutions and thoughts of a better life ahead.

The first on my list to discuss involves field trips for our club. Several of our board members have gotten phone calls and e-mails during the past year from prospective new members and very often the subject is: "When do you have field trips?" Sadly, we have to say that we currently do not have a field trip chairman and have not had active trips in a very long time.

That is why my first call to our members is that we have some members in our club step up to the plate and VOLUNTEER for a FIELD TRIP COMMITTEE. Hopefully, this way, the burden will not just be on any one person and a committee can get the ball rolling. LET'S GET SOME FIELD TRIPS PLANNED!

There are many nearby locations and some of our older members have the location and contact information to help. If you would like to help in this area, please contact me or any member of the board. Our club

owns a CD which map locations all over the state which can help as well as some member maps and even a book with hunting locations.

Currently, another option for field trips is to refer those that inquire to the MAGMA organization which has a very active field trip program. Although, trips with MAGMA are NOT covered by our SFMS insurance program, it is an individual choice of members and totally outside the scope of activities of the Charlotte Gem and Mineral Club.

Several of our members, as Kathy and I, have been on MAGMA Field trips and found them to be enjoyable outings. For those wanting to see the 2010 schedule to trips which MAGMA has planned, you can learn about this at [WWW.WNCROCKS.COM](http://WWW.WNCROCKS.COM). If you have interest in these trips go to the website and click on "upcoming events". Again, it is NOT the intent of our club to endorse or not endorse these trips by MAGMA. It is your personal choice if this organization's field trips will fulfill your needs to go hunt rocks and minerals.

In the past, our club was an active member of THE DIXIE MINERAL COUNCIL. We were dropped off

the list of participating clubs as we did not sponsor one monthly trip. I have asked board member, Ken Anderson to get us signed up again and have agreed that I will lead a local trip on behalf of our club.

Being a member will give our members a SFMS sanctioned option for field trips as this council has a trip planned just about every month. Hopefully, you will be able to read about DIXIE MINERAL COUNCIL trips here in the near future

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### Points Scholarship Chair

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Jimmy Strickland

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open

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open

### Christmas Party Chair

Pat Walker

## WEBSITE

www.charlottegem.com

thanks to Ken and those that want a rock hunting day will have it.

The next bullet point on my list is to remind all that NOW IS THE TIME TO PAY YOUR DUES if you have not already done it. Those who have not paid their dues will be dropped from our membership. WE DO NOT WANT THIS TO HAPPEN AND LOOSE ANY MEMBER. PLEASE take a few moments if you have not done so and send our treasurer your check.

Junior rockhound parents remember that your family dues must be paid in order for your children to be able to continue attending Mary Fisher's great programs. Juniors may attend as a guest for one meeting but membership must be added in order to come again. Mary's program continues to grow and she is having many more programs this month in order to give all kids time on the single microscope donated by Ron Gibbs.

If any member happens to own another microscope, I am sure that the kids would appreciate it. As your president for a second term, it is still my desire that we grow our club and make more in our community

know of the broad spectrum of what we do. Linda Simon's silver classes continue to flourish. Even though I sold my Camera World building in December, we have worked out an agreement with the new property owner to let our club continue to use the clubhouse space until what time The Nature Museum is ready for us to move to our new space.

Regular cabochon classes will resume this month with both Murray and myself teaching on Saturdays. We hope to have another teacher on board very soon. If you are ready to get out of those winter doldrums, I'll bet that cutting a gemstone will help! Murray and I will post a schedule soon, but if you want to be on either of our lists, please contact us A.S.A.P.

Most of all, it is my wish that you have a very blessed New Year. I look forward to seeing more of you at meetings and working with you towards achieving a greater good for our club. Let me or any member of our board how we can help you and what you would like to see in our club.

**Jack King,**

*President Charlotte Gem & Mineral Club*

## *First Cabbing Class of 2010*

Jack King will be offering a cabbing class on Saturday morning, January 16th, and Murray Simon will offer a second class on the following Saturday, January 23rd, 2010.

**Jack King:**

*tackyjackie@bellsouth.net*

**Murray Simon:**

*drsimon@mindspring.com*

For further information contact the appropriate instructor and sign up with them sometime the week before.

*No February Newsletter  
Editor in Quartzsite and  
Tucson*

# Charlotte Junior Rockhounds

Saturday, January 30, 2010

Topic for January: *Micromounts*

Saturday, February 28, 2010

Topic for February: *Sands from Around the World*

## Three Classes:

9:00 – 10:00 AM

10:30 AM – 11:30 AM

1:00 PM – 2:00 PM

Each class is limited to 5 students, since we are working with microscopes.

Parents are encouraged to attend with students.

## Show & Tell

Bring a favorite Gem or Mineral to show the group!

Meeting Location: CGAM Clubhouse

At the Camera World on Commonwealth Ave.

In order for materials to be ready, you must sign up ahead of time:

Contact Mary Fisher at [mefisher@att.net](mailto:mefisher@att.net)

## *Microminerals and Micromounts*

The cost of fine mineral specimens continues to rise and the amount of top quality material never fills the demand. We live in a world where a mineral hand specimen (3" x 4") can cost as much as new computer or even a used car. So collecting can be a very expensive hobby, but there is a way around much of the expense.

Micromounts are mineral specimens that can be placed totally within a 1" on a side box. They require magnification to see clearly, but a hand loop works fine. Most micromount collectors use a microscope to see and study their collection. A high

magnification scope is not needed and most collectors use a stereo (dissecting) microscope. A reasonable stereo scope can be purchased used on E-Bay for between \$50 - \$150. (Either used or new from one of the Chinese Microscope vendors.)

So why are micros so popular (other than cost), well most mineral specimens tend to crystallize in nearly perfect crystals at a scale of about 1 mm. Large, perfect crystals are very expensive, but perfect micro crystals are more the norm than the exception.

There are many collectors throughout the world that work with micromounts and they often have Micromount Only Meetings. It is very common for people to bring free samples of local minerals to these meetings and give them away. Many new collectors can start a sizeable collection for very little by attending one of these meetings.

A good resource for clubs and organizations related to micromounts can be found here:  
<http://www.micromineral.org/societe.html>

A good message forum is:  
<http://www.mindat.org/msg-board-60.html>

# January Regular Meeting

*Charlotte Nature Museum  
1658 Sterling Rd  
Charlotte, NC 28209*

Date: January 21, 2010

Time: 7:00 pm

## **- Diamonds - by Rick Jennings**

*(Graduate Gemologist - Fellow Gemological Assoc. Of Great Britain)*

*(Rick works for Diamonds Direct in Charlotte)*

### **mining of rough diamonds**

types of mining/extraction  
locations  
distribution

### **cutting of diamonds**

brief history  
steps in cutting  
distribution

### **manufacturing jewelry for diamonds**

melting/formation of metal  
waxes  
casting  
die striking  
extruded tubing  
cad-cam

***Final Product***

## ***Diamonds - Carbon by any other name!***

The largest diamond ever found was called the Culligan diamond and weighed in at 3,106 carats. (There are 5 carats to the gram, and hence it weighed in at 1.36 lb.) The largest diamond cut from the rough was the 530 carat Star of Africa and is now part of the British Crown Jewels.

This year at the historic Culligan Mine, a 507 nearly flawless stone was discovered. Also this year several other large stones were uncovered, including a 168 carat, a 58.5 carat, and a 53 carat stone.

Diamond is the hardest natural substance on the earth, actually it's

an element. Diamond is pure carbon, and most of what exists on the earth's surface comes from the lower regions of the earth, originating in the mantle. (A little diamond may have arrived on earth with meteors.)

Diamond is the stable form of carbon in the mantle, and graphite would be rare in that environment. Whereas graphite is the stable form of carbon at the earth's surface with diamond being more rare.

In order for the diamond in the mantle to reach the earth's surface it had to take a super-sonic ride in a huge volcanic pipe. The diamond is

incorporated in the kimberlite (the pipe's composition is known as kimberlite) and is carried to the surface with other mantle minerals.

The very high speed is necessary for the diamond to make the transition from the ultra high pressure and high temperature environment in the mantle to the low temperature and pressure system found at the crust. If it was carried slowly it would actually burn up during the trip.

The largest supply of diamond as traditionally come from South Africa, but the newest and potentially even larger supply is now coming from Canada, the newest diamond frontier.

# February Regular Meeting

*Charlotte Nature Museum  
1658 Sterling Rd  
Charlotte, NC 28209*

Date: February 18, 2010

Time: 7:00 pm

## **- Geology in the School System -** *by Denise Trufan\**

Do you wonder just what elementary school children are learning about rocks and minerals? Come to the February meeting to find out. Denise Trufan\* will take you through the ways she teaches her Science Lab students to be mineralogists. You will see kinesthetic modeling, a look at a third grade rock collection and journal, labeling, and samples of the rocks and minerals she uses with her classes. You won't be able to sit down for HER Power-Point. **THIRD GRADE ROCKS!** See you there!

*Veteran Teacher - since 1993 • Science Facilitator at Indian Land Elementary School in Indian Land, SC • South Carolina's Project Learning Tree's Outstanding Educator for 2007 • National Outstanding Educator for 2009 • Teacher of the Year 2009 -second place - Soil and Water Conservation District • Teacher of the Month :Lancaster South Carolina County Rotary Club, October 2009 • Nominated for Teacher of the Year: 2003 and 2008, Lancaster School District, South Carolina • Lancaster County School District Trustee Award: 2009, 2008, 2007, 2006, 2005, 2003 • CAPSEF (Special Education Award) Excellence Award (Teacher of the Year): 2000, Clinton, Connecticut*

## ***Lapidary Arts Robbed at Thanksgiving***

Around Thanksgiving, the Lapidary Arts Store in Charlotte was held-up at gun-point and Ruby and a student were both assaulted in the robbery. Here is a note from Ruby to the Club.

To all Charlotte Gem and Mineral Club Members,

The kindness that the club has shown since our robbery on November 23rd has me overwhelmed. The shop has been opened for 24 years and had never had a robbery and honestly I never thought this could happen to me but now I know it can happen to anyone. We have stepped up security with a door buzzer, security cameras and carry guns. I am on the mend, I had 15 stitches in lip, cracked bone under my right eye, back, neck, rib and knee injuries. I had a former student here and she was using lab time. She had 6 staples in her head and is doing well. Whether you sent a donation, card, good thoughts or call, all was much appreciated. All of you have been wonderful and I thank you more that I can put into words. Again I wish all of you the best and hopes for a Happy New Year. ***Once again my thanks to all of you, Ruby***

# Using a Digital Camera to Photograph slabs, cabs, gemstones, minerals and jewelry - Part VIII by ron gibbs

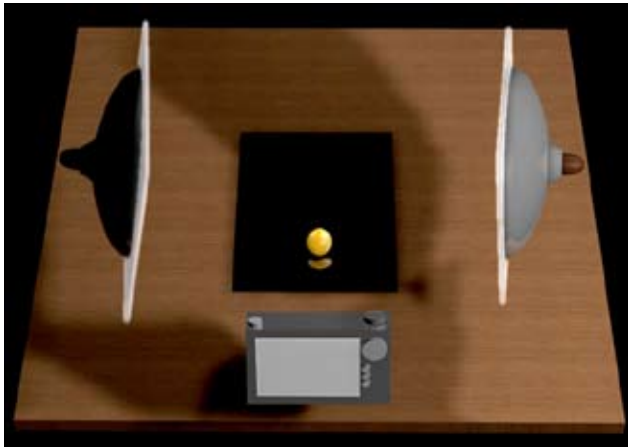


Fig. 1.

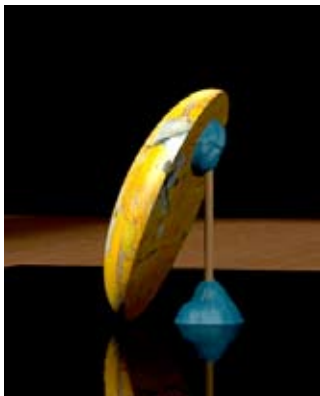


Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.

The camera should be set up on a solid tripod, the ASA needs to be set to the lowest value possible, aperture priority mode is selected, and the f-stop is set to between 8 and 11. The camera self-timer or a remote shutter release will be used to take the image. The focus should be set to macro and manual mode if available, and the object (cabochon) needs to fill as much of the frame as is feasible for good composition. This is the typical camera set up for virtually all of the future set-ups. The tripod is not shown in the following diagrams.

Cabochons are domed stones with highly polished surfaces so they need to be lighted with soft lights, and from the sides or edges to help avoid hot spots and specular highlights. A good set up is two diffused lights directed at the cabochon from opposite sides (Figure 1.), but a single light with a good white reflector is also a reasonable setup.

Last month I showed one of my favorite cabochon holders, basically a stick with a couple of dabs of clay to hold it upright. (Figure 2.) I like to use black acrylic sheet as the surface and background for the image. The black sheet becomes a mirrored surface making a nice reflection of the cabochon (Figure 3.). Clear acrylic can also be used with a color beneath it, and it too will produce a reflection, but much less pronounced.

Since all close-up photography has very limited depth of field is not a good idea to place cabochons flat on a surface unless the camera is stationed directly above. This makes for an uncomfortable working set up. Thus the cabochon should be placed as close to parallel to the camera lens as possible. Cabs which are laid flat and shot from an angle will be out of focus at one end or the other. (Figure 4.) When they are set up parallel to the front of the camera lens, they can usually be brought into focus with an F-stop between 8 and 11. (Figure 5.)

If the cabochon has a dark edge or a dark pattern running out to the edge, then it can become lost in the black acrylic. By using a white reflector behind the sheet of acrylic it is possible to control the background color anywhere between pure black and very light gray. The white background is reflected into the black acrylic and by adjusting the angle of reflection it is possible to create the level of gray desired. It can also be accomplished by placing a light directly above and slightly behind the cab.

Figure 6. shows the two light set up with a white reflector behind. In this case the reflector is not large enough to completely cover the black acrylic, but is large enough to use with the cabochon. In the next figure (Figure 7.) is an example from the point of view of the camera. If the image is cropped then only the grayish area will show behind the cab.

Another way to hold a cabochon is to use a jewel CD case, and a piece of rubberized shelf paper. (Figure 8.) Adjust the angle of the CD case to place the clear face directly in front of the camera. The cabochon is attached to the case with a little liquid-thumbtack or modeling clay. The rubberized shelf paper provides sufficient friction to hold the case at the desired angle. Cut a piece of colored paper or cloth to place behind the clear plastic front, and curve it slightly to take it out of camera focus.

A typical image is shown in the next figure (Figure 9.) By avoiding any lighting directly from the front, there are virtually no light reflections. It works well with the same light setup shown in figure 1. Graded color backgrounds are expensive when purchased from a camera stores. By using a graded background that is held behind the focal plane in the CD jewel case it can easily be made with an inkjet or even lazer printer. When curved it stays out of focus and the quality does not have to be top notch.

Clear acrylic can also be used below a cabochon (similar to the black acrylic) but it will allow the background material to show through. If the background is offset below the flat acrylic about an inch or more, then only the general color and virtually none of the texture will be apparent in the photograph. I often bend a single piece of acrylic or polycarbonate to create a small "table" to hold the stone, while placing a variety of textures and colors below. (Figure 10.) Notice in this example the bend was done in polycarbonate which will

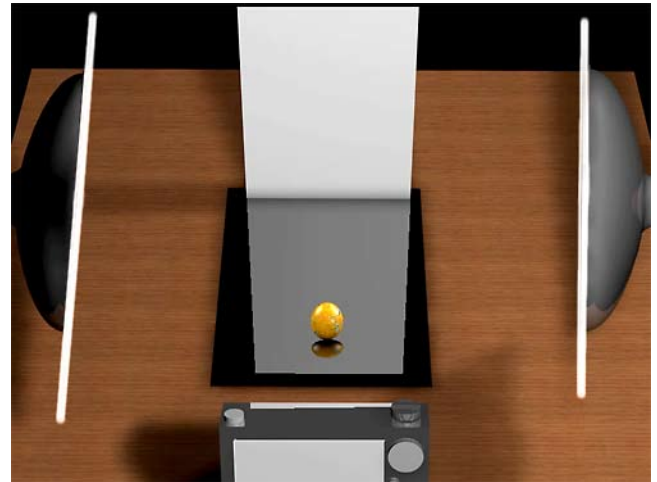


Fig. 6.



Fig. 7.

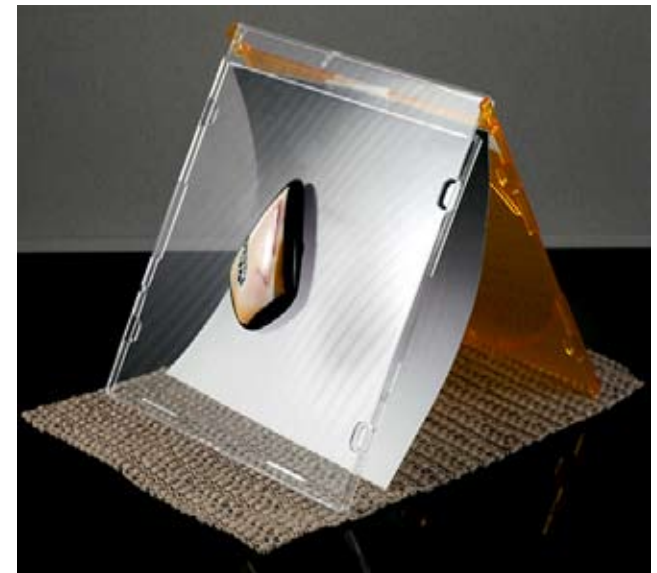


Fig. 8.

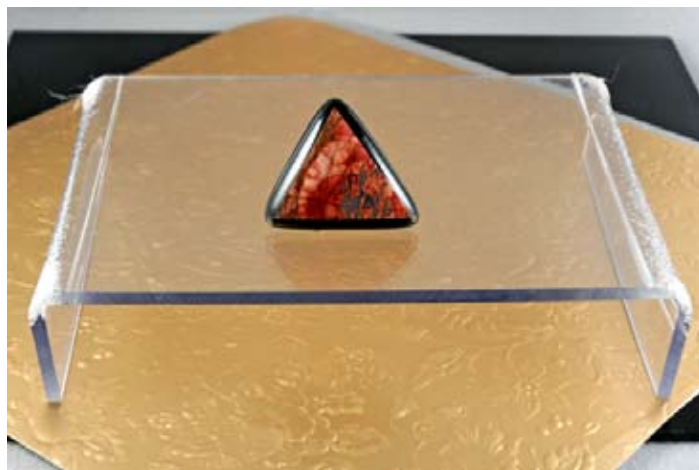


Fig. 10.



Fig. 9.



Fig. 11.

bubble when heated to bending temperature. Polycarbonate tends to absorb water over time which makes it less desirable for thermal bending, acrylic works better. Figure 11. shows a typical result with a patterned backing (invisible do to the lack of depth of field even at  $f/11$ ). Notice there is a reflection in the clear plastic which adds some depth to the image.

The last photo (Figure 12.) is simply a comparison of a two light set-up (on the left) with the same stone then photographed using one light and a white reflector opposite. (The reflector image is the one on the right.) Notice the right hand image is missing one bright edge, but retains enough light to see clearly. This pair also used the reflected white card behind the cabs to make the background lighter so the black jade edges would not be lost.



Fig. 12.

This should provide a good starting point for most cabochon photography, I would suggest not using highly patterned backgrounds or wild colors for most cab images, keep them simple and let the cabochons natural pattern dominate.

The author will be gone to Quartzsite and Tucson in January and February so the series will not pick up again until March. In March we'll look at photographing slabs and/or any flat objects.



## Club Christmas Party Provides Year End Scholarships

The club ended the year on a happy note with the awarding of two scholarships to the Geology department at UNC. Michelle Flowers and Chad Gammas each won a club sponsored scholarship to help out with books and supplies. Money for this yearly scholarship is provided by our income from the Matthews Live Geode Cutting.

Besides the two external scholarships, two more internal club scholarships were awarded from a pool of

members that have supported the club and it's activities in the past year. The winners this year are Scott Stewart and Kim Tyler. These scholarships provide an all expenses paid one week class at William Holland or Wild Acres, both lapidary and jewelry schools in the southeast. The two alternate choices (in case one of the primaries can't make it) are Laura Freund and Murray Simon.

To be in the drawing for next years club scholarships simply turn in your point-sheets with sufficient points earned throughout the year. Simply showing up for our monthly meeting can earn nearly half the required points.

There was plenty to eat for all as the club provided turkey, and ham. And



Jack King and Michelle Flowers

the members brought a plentiful array of side dishes and many desserts.

