

GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB

JUNE 2009

the Prez Sez ...

All the rain has brought some very green grass to my yard and the flowers are loving it too. I finally got a break from the mower and was able to squeeze in one cabochon class the last Saturday in May. We had four students and held our class in our clubhouse during the same time that Mary Fisher held two back to back junior rockhound programs.

I would invite any member to drop by when Mary is holding a juniors' program to see the excitement of these kids and witness for yourself the dedication and skills of Mary. She is a hands on teacher and I can see some real stars evolving out of her program. Our club and our rock community owes Mary a special thanks for her passion to give the time to hold these classes.

My four ladies tackled everything from finishing up a stunning fire agate which was started in a previous class to a very attractive free form Chilean Lapis stone which will make a nice wire wrapped piece of jewelry. Gale had some challenges on a pesky large spider web obsidian stone, but it finally was conquered and a very attractive stone was achieved. I think that our

dop wax had gotten too old and we had problems keeping the stones on the dop sticks but all in all, I think that everyone had a fun afternoon.

This month's meeting is a meeting that you want to be sure NOT TO MISS. We are very fortunate to have a guest speaker who has actually owned an opal mine in Australia! How many times to you get to talk face to face with an actual miner? Mr. Richard Holmes is coming to give us a special presentation and if you have vacation scheduled that week, cancel it. Richard is an author of several books and I feel that everyone will enjoy the knowledge and experience that he brings to our club.

When I told of the club booth at Historic Rosedale last month, I wanted to tell you of some very beautiful rock decor that members Scott, Eric and Gigi are selling thru their new rock business. I have seen these in Tucson but they are now available right here in town. They are selling amethyst coffee tables or I guess that you could use them for side tables or whatever. Basically, they are Brazilian cathedrals which are halves of amethyst geodes with legs added and a glass

table top. If you want to do some rock and mineral decorating in your home, these would make a designer piece addition to any rock and mineral lover's home.

Murray is getting better every day from his shoulder surgery and then following that eye surgery. Hopefully, Murray will be ready to return to teaching soon and I am sure that members will get a blast when he is ready for a cabochon class.

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I am off to William Holland School of Lapidary in Young Harris, Ga. for a week of teaching cabochons and our news letter editor, Ron Gibbs will be teaching photography and advanced cabochons. We are fortunate to have two great schools within driving distance which offer a wide variety of lapidary and jewelry classes. The one that I just mentioned as well as Wildacres in Little Switzerland, NC. Check out their websites and see what is offered.

I will tell you from personal experience that these schools offer the best value in vacation and learning time. For about three hundred dollars for the entire week, you get great food, a place to sleep and class of your choice. Some classes carry an additional class fee, but it is a reasonable amount. One would be hard pressed to find a Motel Six and peanut butter sandwiches for what it costs to go to one of these schools. If you cannot get this year, start planning for next year.

I will be entertaining a fellow rock hound from Queensland, Australia this week. He was traveling to our state on business and learned of our club thru our website. He is very excited to be taking home several signed copies of Ron Gibbs' new book: Agates and Jaspers. I am sure that when his fellow club members back home see the book that he is bringing that they will be as excited as when I opened my copy. If you like rocks, this is must have book and will look great on your coffee table.

If you are a new member and have not heard this before, WE NEED VOLUNTEERS ! If you would like to contribute your energy and talents in any way, please contact any officer or board member.

Again, DON'T miss this month's speaker. Bring a guest and call your fellow members please. Richard will have copies of his book available for purchase.

Jack King, President, Charlotte Gem and Mineral Club

Club Library

by Pat Walker

Don't forget our great club library. We have field guides, how-to books, and wonderful reference materials. Let's give our library some activity.

Dues are past Due!

For those who have not paid their 2009 dues yet, this is a reminder - the dues are now past due. Talk with Gale Blevins if you need to pay.

**THE CHARLOTTE GEM & MINERAL CLUB
PRESENTS RICHARD HOLMES**

AT OUR NEXT REGULAR MEETING

THE PRESENTATION:

DATE: JUNE 18TH

TIME: 7:00 PM

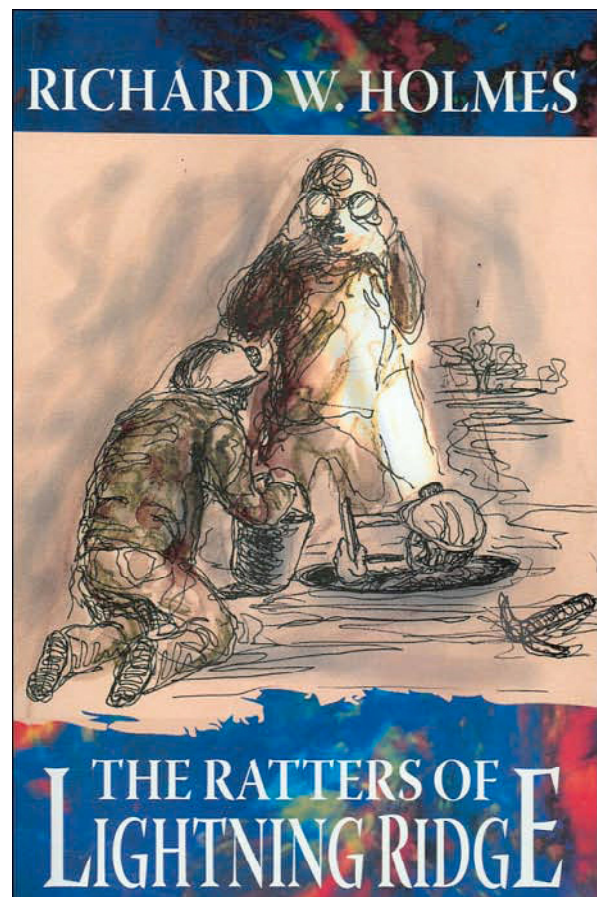
**LOCATION: CHARLOTTE NATURE MUSEUM
1658 STERLING RD
CHARLOTTE, NC 28209**

THE HUNT FOR THE ELUSIVE BLACK OPAL

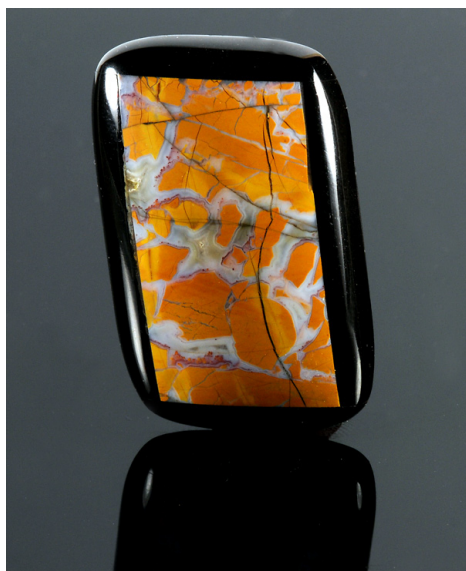
RICHARD HAS BEEN TO LIGHTNING RIDGE, AUSTRALIA 10 TIMES IN THE LAST 20 YEARS AND HAS MINED BLACK OPALS FOR FUN AND PROFIT.

DON'T MISS THIS SPECIAL EVENT!!!

RICHARD HOLMES TAKES THE READER INTO THE LITTLE-KNOWN WORLD OF THE BLACK OPAL: THE VOLATILE NATURE OF THE BUSINESS AND THE PEOPLE WHO MINE AND SELL THIS PRODUCT OF THE EARTH. DESCENDING INTO A THREE-FOOT DIAMETER SHAFT SIX STORIES DOWN, SHARED BY POISONOUS SPIDERS AND SNAKES, TO CHIP AT ROCK IS NOT SOMETHING THE AVERAGE PERSON WOULD FIND APPEALING. THE "WILD WEST" NATURE OF LIGHTNING RIDGE AND ITS PART-TIME INHABITANTS WILL APPEAL TO THE AMERICAN READER, HOWEVER.



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



Stone Canyon Jasper Cabochon



Calcite Crystal

Over the next several months I will be writing a series of articles on using digital cameras to capture items related to our hobby. I now have a ready supply of material since I am just finishing the preparation for teaching a class in the topic at William Holland Lapidary School.

My company bought me a Mac II color computer in 1987 and I saw what real color digital images could look like, wow, I was impressed. I was a very early user of digital cameras, the first one that I used (notice I did not say owned, again my company bought one for me to evaluate) was from Panasonic, and dated back to 1989 - 1990. They produced a digital still camera with something like 320 x 240 pixels of resolution for the price of only \$2500. It used, small, roughly 1 inch floppy disks to save the images in almost real time. Color photos, well not at this time and price point.

In 1990 I managed to get a copy of Photoshop with the PhotoMat icon and began to play with digital images, I closed down most of my personal "wet chemistry" darkroom that same year as I believed I saw the future, and it was digital photography.

In 1994 I got my hands on my second digital camera, the Apple Quicktake camera which doubled the resolution to 640x480 pixels and could save 8 full size images for only \$750. And it had Color! How could things get any better?

It has taken about 20 years for the digital camera to achieve the same general resolution as film, but digital editing (Photoshop) provided advancements in image control never fully realized by the "wet chemistry darkroom". I spent much of my time developing digital techniques to adapt to science since I was once a chemist with a strong interest in photography.



Citrine, Rose de France (Amethyst), Ametrine



Gaspeite, jasper, opal in sterling silver

I will break up the future articles into the following main topics and proceed accordingly. There will likely be more than one article devoted to each topic.

- 1.) The Camera - what are the minimal requirements of a camera to produce reasonable digital images from the afore mentioned subjects.
- 2.) The Camera Controls - what are the most important settings, and why select them for virtually all of the photography.
- 3.) Lighting - the often overlooked critical element in taking the photographs - the “Color” of light, the quality of light and its placement.
- 4.) Lighting setups for each of the subject types, and backgrounds
- 5.) Adobe Photoshop or Adobe Elements for editing the photos and getting the most from each image. Which tools are easy and fast for most users.
- 6.) What can I do with all these images now that I have created this library of photos?

So let’s begin with camera specifications for use in close-up digital images of lapidary materials.

1.) The Camera Specifications -

We may as well start with the number one *marketing* topic for digital cameras ... Resolution. This seems to be the topic most often discussed when describing a digital camera and, what makes it better than another. In reality it has become one of the least important topics for most cam-

era users. Notice I highlighted the word “marketing”, it has become more of a marketing gimmick than a useful function for sometime.

Resolution is given in terms of total pixels, we have 2 mega pixel (MP = millions of pixels) cameras, 4 MP, 8 MP up to about 20 MP today. The resolution you need is solely dependent upon the final use of the image.

There are generally two uses for images, they can be used to display on a monitor (WEB, e-mail, pdf based newsletter, or slideshows.)

For this use, most computer monitors display 1024 x768 pixels of resolution, that’s less than 0.8 MP! If we want to show full resolution slides on our high definition TV, it is now 1912 x 1080 pixels for full screen, or only slightly over 2 MP off total resolution.

For users who do not want to print images, and only want to electronically display them at high quality, they rarely need more than 4 to 5 MP of resolution. Try to find a digital camera with that low of resolution today.

For those interested in printing pictures, you do need more resolution. It’s actually because all of the printing technologies have to use patterns of dots to create a full spectrum of colors. This technique, called dithering, requires more pixels to achieve the same visual resolution that a monitor does.

At the low end of the scale, you need about 2 MP to create a reasonable 8 inch by 10 inch print. If you

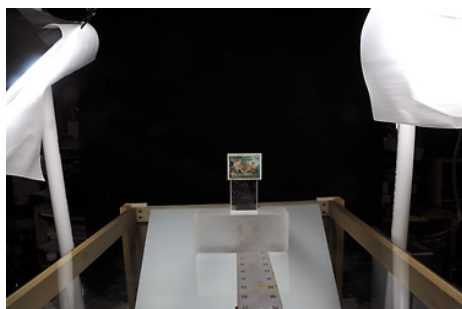


Porcelain Jasper (aka Scifi Jasper, Exotica Jasper, etc. etc.)

want the best possible 8x10 print then about 8 MP is recommended. If you are going to print enlargements that are 11x14 or 16x20 inches in size, then higher resolution camera may be the ticket for you.

For most people, non-photo pros, 8-10 MP is over kill as far as resolution is concerned.

So what else is important for shooting close-up images? The camera needs “macro” capability. “Macro” means that the camera can “fill the frame” with the subject. Digital images cannot be blown up beyond their highest original resolution without loss in image quality.



Stamp with 35mm lens



Stamp with 70mm lens



Stamp with Macro lens



35mm lens

70mm lens

macro lens

Lets look at the examples to the left. Each photo is full frame and is about 3000 x 2000 pixels of total resolution. In the first image the stamp is roughly 228 x 174 pixels in total size. In the second image it is 670 x 510 pixels in size, and in the last image it is 1500 x 1150 pixels in size.

Notice the resolution/quality difference in the three blow-ups above. The first is with the 35mm lens, the second with the 70mm and the final image is with the macro. Sharpness is best obtained when you fill the frame with the image and get as many original pixels as possible in the photo - so the general rule for digital images - *always fill the frame!*

Next month we'll look at focus, and shutter speed.

WNC MINES CLOSED!!!

(Submitted by Linda Simon)

All mine shafts and caves are off limits to collecting or entry in the 13 southeast states for one year!

I have received an email and phone call from the Forest Service. This information should be passed along to all other clubs you may belong to. MAGMA is working with the Forest Service here in WNC to pass along this information to our members and other clubs in the area. I also want to ensure that our members adhere to these rules. This is a one year closure. Hopefully the mines will be re-opened at the end of that year.

Charlotte Junior Rockhounds

Saturday, June 27, 2009

Two Classes:
10:00 AM – 11:00 AM
1:00 AM – 2:00 PM

CGAM Clubhouse
At the Camera World on Commonwealth Ave.

Show & Tell
Bring a favorite Gem or Mineral to show the group!

Topic for June: Geology – Part 2

Each meeting is limited to 8 students.
Parents are encouraged to attend with students.

In order for materials to be ready, you must sign up ahead of time:
Contact Mary Fisher at [HYPERLINK "mailto:mefisher@att.net" mefisher@att.net](mailto:mefisher@att.net)

The fungus that is killing the bats in the north has spread as far south as Virginia. As a precaution, the Forest Service has issued a closure for all the caves and mines in the southeast.

This closure affects all mines that we visit on Forest Service land that have any type of cave or mine shaft, whether it be vertical or a horizontal tunnel regardless of depth. This includes the Ray Mica Mine in Burnesville, NC. At this time, surface collecting at the Ray is still permitted as long as collecting is done away from any of the mine shafts in the area. Violating these rules will result in arrest and fines.

This closure order affects all the 13 southeast states.

Read the following from the Forest Service for more information:

National Forests in North Carolina WNS Supplement

How many mines and caves are there on National Forest lands in North Carolina?

There are numerous unnamed small caves and abandoned mines on Forest lands, particularly in the mountains and on the Uwharrie National Forest in the piedmont. Blowing Springs cave and smaller caves in the Nantahala River Gorge are included in this closure. The

Ray Mine area on the Appalachian District in Yancey County includes numerous small mine openings, all of which are closed with this closure order. Rock hounding is limited to exterior surface collection.

Are there any caves or mines within the National Forests in North Carolina confirmed to have WNS? No.

Are other agencies closing their caves and abandoned mines in North Carolina?
Yes. The US Fish and Wildlife Service sent out recommendations for closure and protocols for decontamination of clothes and equip-

ment. The Great Smoky Mountains National Park closed all caves and mines in April. Spelunking organizations across the country are supporting the effort by educating their members and encouraging cavers to avoid areas of cave closures.

What about privately owned caves? Linville Caverns in McDowell County is privately owned and remains open. Bat Cave in Henderson County is owned by The Nature Conservancy. These and other privately owned caves are not regulated by this closure order. This closure order pertains only to those caves and abandoned mines found within National Forests in the Southern Region. The Eastern Region of the US Forest Service previously issued a similar closure order.

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FOR IMMEDIATE RELEASE,
RELEASE NO. 06-09

FOREST SERVICE CLOSES CAVES AND MINES TO PRO- TECT BATS IN SOUTHEAST

ATLANTA – Most caves and mines on National Forests in the southeastern United States are being closed for one year in an effort to protect bats, according to Regional Forester Liz Agpaoa. “We are working to stop the uncontrolled spread of White Nose Syndrome (WNS) among bat species,” she said. “The closures will allow scientists and land managers time to work together and study the fun-

gus, learn how it spreads and how to best address it.”

Under the 12-month closure order signed by Agpaoa on May 21, 2009, all caves and abandoned mines on national forests and units in 13 Southeastern states from Oklahoma to Virginia and Florida will be closed unless posted as open. All uses would be prohibited except organized rescue efforts and other actions specifically authorized by the agency.

White Nose Syndrome, or WNS, is named for a white fungus that appears on the faces, ears, wings and feet of hibernating bats. Scientists are trying to determine how WNS affects bats. The disease causes bats to come out of hibernation severely underweight. In a desperate attempt to avoid starving, the affected bats are often seen flying during the day. They are looking for food, but the insects they normally eat in the spring are not yet available. Once a colony is affected, the fungus spreads rapidly and may kill 90 percent of bats at the hibernation site in just two years.

FOREST SERVICE CLOSES CAVES AND MINES TO PRO- TECT BATS— 2/2/2

Bats are a natural and important part of forests and help control forest and agricultural insect pests. Scientists believe the WNS fungus is spread bat-to-bat as they cluster in caves and mines, and it may be unknowingly transferred from one cave or mine to another on the footwear and gear of humans. Infected caves and mines may not show obvious signs of its presence. No reported human illnesses have

been attributed to the fungus. “The syndrome has already affected caves in Virginia in close proximity to the George Washington and Jefferson National Forests,” said Dennis Krusac, Threatened and Endangered Species Specialist for the Forest Service’s Southern Region. “Staying out of caves and mines is the one thing we can do right now to slow the further spread of the fungus.”

The closure order was implemented in hopes of protecting some of the largest bat populations in the country, Krusac said. Many national forests in the Southern Region are home to several species of bats, including the federally endangered Indiana bat, Virginia big-eared bat, gray bat and Ozark big-eared bats. Nearly 500,000 bats have died as a result of WNS in the New England and Mid-Atlantic states, including almost 25,000 Indiana bats.

Caves and Abandoned Mines are closed Within the National Forests in North Carolina

Due to a mysterious disease, White nose Syndrome, bats are dying by the hundreds of thousands in the Northeast.

Caves and abandoned mines on all North Carolina National Forest lands are closed to prevent the possible spread of the disease.

Thank you for your cooperation in avoiding these sites and helping to protect our bat populations in the Southeast.

