

GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB
DECEMBER 2010

the Prez Sez

I look forward to seeing lots of members at The Charlotte Gem and Mineral Club's annual Christmas party at Amity Church. Look for a detailed map in this newsletter.

As usual, this is a family event with lots of good food and fellowship. Our club furnishes the main meats like ham and turkey cooked by world famous club members and we invite any member to bring their favorite side dish and deserts.

There is usually a very yummy selection for all to enjoy. This season marks the end of my term as president of our club. It has been a fun and rewarding tenure for me and I have especially enjoyed seeing our club grow and diversify in its activities.

Cabochon classes will have resumed by the time that you read this and new ones will be open for the winter months. These are always popular classes and we ask that you contact Sara Boyce directly to sign up for a class.

If you have never cut a gemstone before, don't worry. We will show you how. If you have done this before and want to add to your

work, you will surely want to sign up quickly. You can reach Sara at 704-827-1421 and the classes are in the basement of her home where we have four machines set up for students.

My new job with the club will be field trip chairman and I am currently working on a very special trip to the Kingsport, TN area where I am told by our guide that we can find some most interesting sea worm fossils.

We will do special e-mail blast on both the cabochon classes as well as any scheduled field trip. One of the most exciting and rewarding things that I have witnessed in my role as president is the tremendous growth of our junior rockhounds program.

This is all to the credit of Mary Fisher and her unending hard work and dedication to these kids. Mary is like a pied piper with her kids. Currently, as she has no central meeting place, she dashes back and forth between Concord and Matthews so that she can offer her program to two groups of kids. If anyone knows of a church or other meeting space that Mary can use

for several hours on one Saturday a month, I know that a central site is much needed. AND, it needs to cost nothing or only a very nominal fee for our club to be able to afford this. We all owe Mary a BIG thanks for what she has done for our youth.

The Christmas party is when we award two scholarships to deserving UNCC students as well as the points scholarships to our members which entitles a trip to William

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Jimmy Strickland

Refreshments Chair

open

Workshop Chair

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lsimon1@carolina.rr.com

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Picnic Chair

open

Christmas Party Chair

Pat Walker

WEB Site

www.charlottegem.com

Holland or Wildacres school for a week.

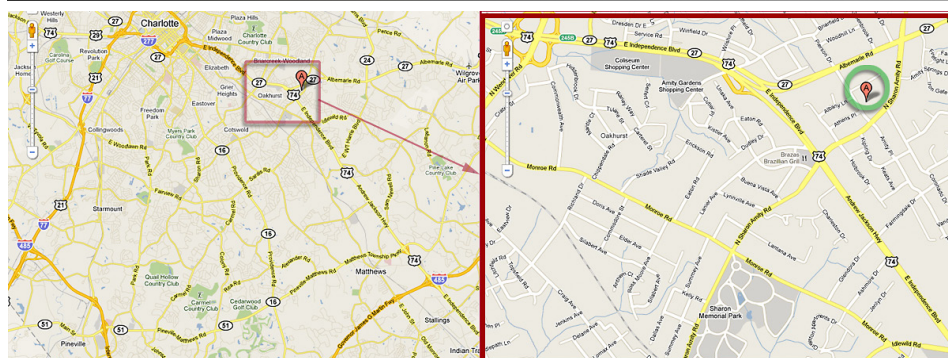
And speaking of school classes for next year, the William Holland School school schedule will be available for on-line sign up on midnight, Dec. 6th. I taught cabochons for the last two weeks of the school this year.

Many classes like newsletter editor, Ron Gibb's photography classes fill up very quickly and always have waiting lists. It is the same for Sara Lee Boyce's opal classes. We have several members who teach at both schools and the catalogue can tell you of the wide variety of courses that are available.

There is no better value for a week of good food, a comfortable place to sleep, an informative class and LOTS of fellowship in what we do as these schools offer. Where else for about three hundred dollars a week can you get all this?

Again, I thank you for the opportunity to serve as your president of this club and hope that the new incoming officers will have as much fun as I have had.

Jack King, Presidnet Charlotte Rock & Gem Club 2010



Wide area Holiday Party Map ... (A) Amity Presbyterian Church

Irregular Monthly Meeting

Charlotte Gem & Mineral Club

Topic: Holiday/Christmas Party

FRIDAY, December 10th, at 7:00 pm

Location: Amity Presbyterian Church

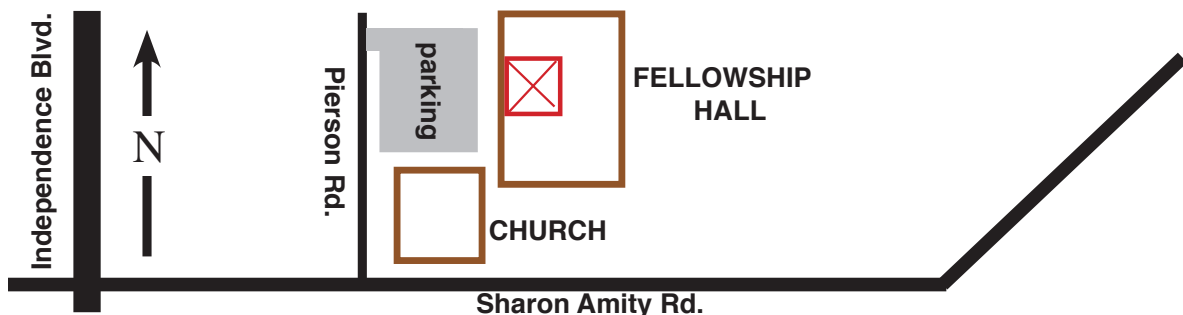
2831 N Sharon Amity Rd Charlotte, NC 28205

Amity Presbyterian is located between Albemarle Road and Independence Blvd., on the corner of Sharon Amity Rd. and Pierson Rd. Turn on Pierson Rd. and go to the back of the church to park. The fellowship hall is in the long wing of the church bordering the north side of the parking lot. (Map below) The Club will be providing meat, drinks, and paper products. Please bring a vegetable, dessert, or salad dish to pass, along with serving utensils. Remember some signed up at the last meeting for a specific dish!

If you wish to participate in the gift exchange, bring one or two wrapped gifts, connected to our hobby. Everyone who brings a gift will be permitted to exchange a gift on the table.

The scholarships for the UNC Geology students will be announced, as well as well as next years club scholarships for Wild Acres or William Holland lapidary schools.

If you are planning on attending the party and haven't RSVP'ed yet, please call Pat Walker, 704 523-5261. (If you would like to help with table setup and decoration please show up at the church at 1:30 pm on Friday, this usually takes about an hour.)



Using a Digital Camera to Photograph slabs, cabs, gemstones, minerals and jewelry - Part XVI

by ron gibbs

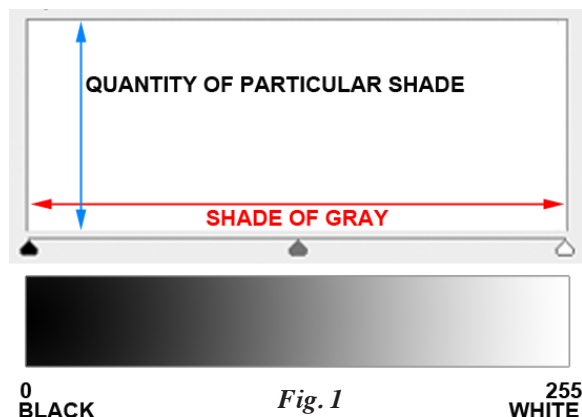


Fig. 1

Probably the most useful tool for the fine-tuning of photographs is the histogram tool (also called the Levels Tool in some software.) "Reading a histogram" is useful in assessing the exposure of an image as well as making modifications to it.

So what is a histogram? It's a graphical representation of the tones in an image. It's actually just an elongated bar chart. (Fig 1.) The long horizontal axis represents the various shades of gray (or color tones), and the height of each bar illustrates the quantity of that particular shade. The horizontal axis starts with pure black on the far left and ends 256 levels later with pure white at the right.

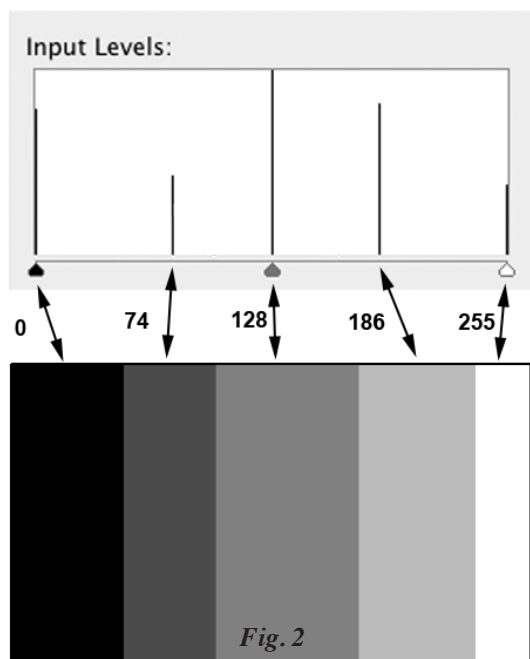


Fig. 2

The next figure (Fig. 2) shows the resultant histogram from the 5 levels of gray in the image below the graph. Each of the bars represents the gray level (numerical values), and the height of each bar is representative of the amount of that shade. Thus the value at 128 is at the tallest because the amount of 128 gray is the largest. Next is the lighter gray (186 value) which is roughly 80% of the size of the 128 gray. The smallest amount of tone is the white (at the 0 value) area. Even without seeing the image (only reading the histogram) you could determine that there were 5 shades, with both black and white and three levels of gray.

The shape and position of the graph relative to the two ends is a good indicator of proper exposure. While there are a wide variety of acceptable histograms there are a few which indicate that the image should be recaptured or shot again with the camera. The worst possible result is a full height line at either or both of the black and white ends of the scale. In both cases this means that there is loss of detail with no ability to recover it. Figure 3 illustrates an overexposed photograph with washed-out whites, and this is evident in the 100% peak at the 255 end of the histogram (outlined in red).

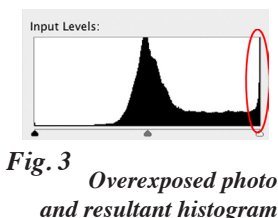


Fig. 3
Overexposed photo
and resultant histogram

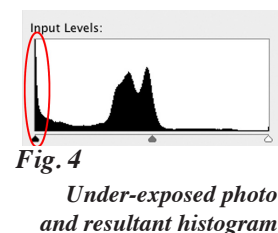


Fig. 4
Under-exposed photo
and resultant histogram

Figure 4. demonstrates an under-exposed image and the resultant histogram. Again the area of interest is circled in red, and shows a 100% peak at the 0 (zero) end of the histogram. This means that at least some portion of the image has lost detail in the darkest areas. Although there is a large pure black area in the image, the darkest pattern in the stone is also under-exposed with loss of information.

Figure 5 shows a reasonably good exposure for the image, and it's associated histogram. The histogram goes show a tiny amount of pure white at the zero point, but not pegged to the 100% bar. There is no pure black, so no loss on that end. It would be slightly better if the shades at the dark end were not at 100% but it's close enough. The color squares in the histogram are associated with their same color circles and ellipses in the photograph. This represents the various tones and some of their locations in the image.

Although there are always exceptions to the rule, a good histogram taken directly from the camera image will cover at least 50% of the width of the graph (the more the better). The histogram will end before reaching either end (0 and 255) so that there is no lost information. Depending on the subject matter, the graph may be predominantly to the left or right of center, that's not really important. It may also be centered.

Keep in mind the ideal for most images is getting the histogram to cover the entire width of the graph, but not saturate (100% bar) either end of the graph. When the photo shows a wide histogram it means that has a full range of tones.

So let's now look at the Level's command in Photoshop Elements (this calls up the histogram tool). The same general tool with similar controls exists in many other photo editing packages. Figure 6 shows the Histogram tool that results from the Levels... menu selection. Pay close attention to the histogram graph and the three small triangles that are below the bottom axis of the graph. These are actually control handles and can be manipulated with the mouse to change the histogram and thus the tonality of the image.

The box outlined in blue shows the histogram graph and the three triangular tools. They are sliders and can be moved independently. The white slider allows adjustment of the lighter tones without changing the black end, and the black slider can be used to change the darker tones without changing the white tone. These sliders can each be moved in only one direction, toward the center.

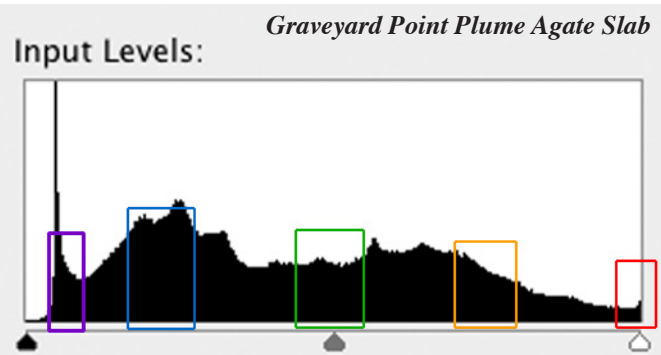
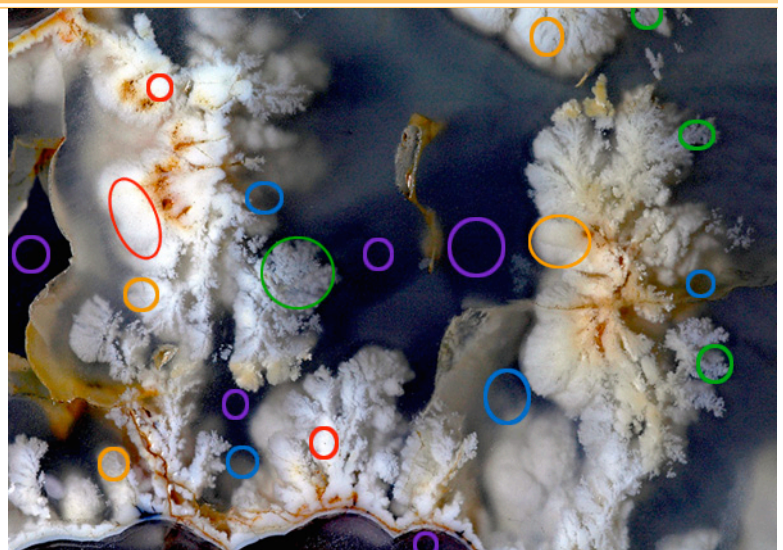


Fig. 5

Stone Canyon Jasper Slab

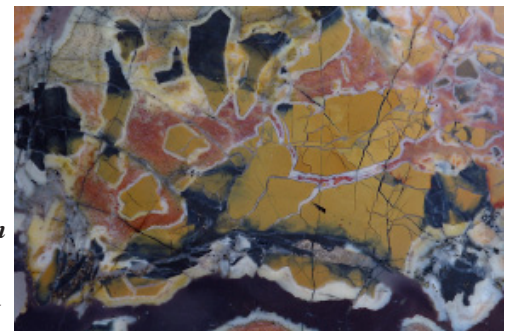
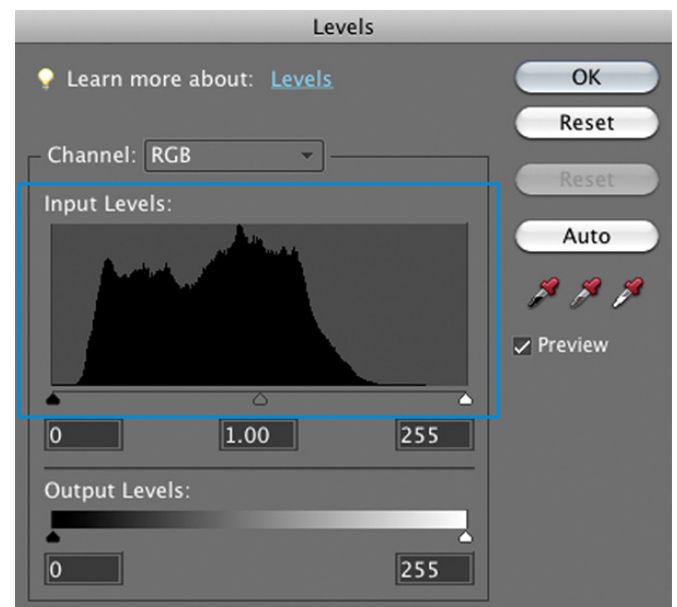
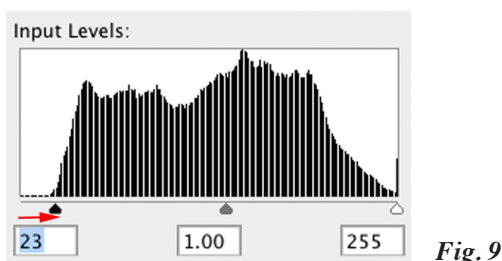
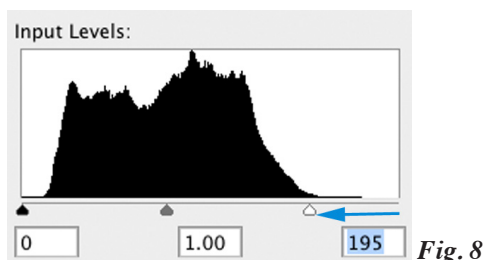
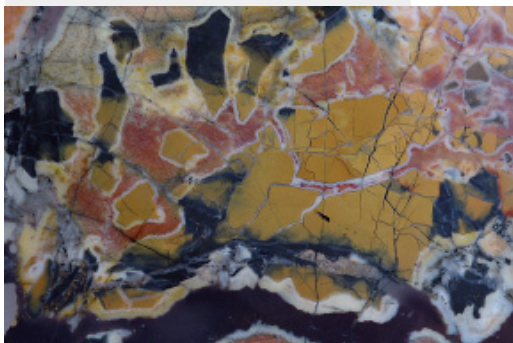
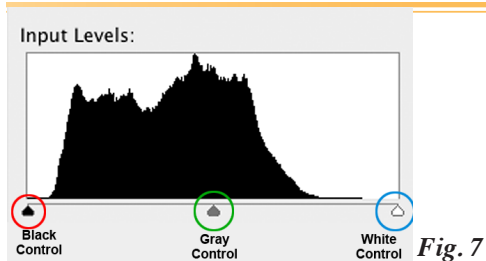


Fig. 6





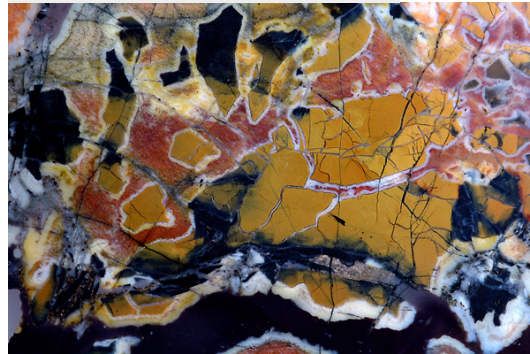
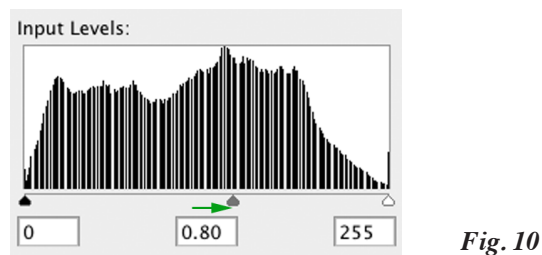
The middle slider (Fig 7. green) adjusts the central gray tones and can be adjusted in either direction, and it has no effect on pure black or pure white. Let's examine what happens in each case when a single slider is moved. We'll use the starting position illustrated in figure 7.

Figure 7 is the histogram of a mainly mid-toned image with no strong dark or light shades. Notice that the histogram does not stretch from the light to dark end of the graph. The first change I would make in this image is to move the white slider to the base of the histogram. (From 255 --> 195, Blue arrow Fig 8.) After this adjustment the resultant image (Fig 8.) is now much lighter than the original (Fig 7.) The adjustment has promoted much of the image tonality toward the lighter side of the histogram.

In the next set of images I have adjusted the dark slider from 0 in to 23. (Red arrow Fig 9.) This has stretched all of the values between 0 and 23 and converted them to 0 (black) and pulled the whole histogram slightly back toward the middle. The two adjustments have produced an image with higher contrast.

The good news is that adjustments can be monitored while making them, the image actually changes in real time as the triangles are moved, helping you to decide the proper amount of adjustment. (Make certain Live Preview is checked.)

Finally in Figure 10, I am adjusting the center triangle which can be used to make middle tones lighter or darker. In this case I decided to make the middle tones a little bit darker so I move the triangle from 1.0 to 0.80 on the axis. This adds a bit more "punch" to the image.

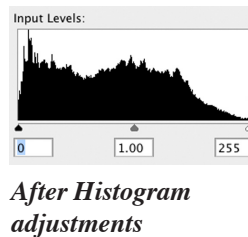
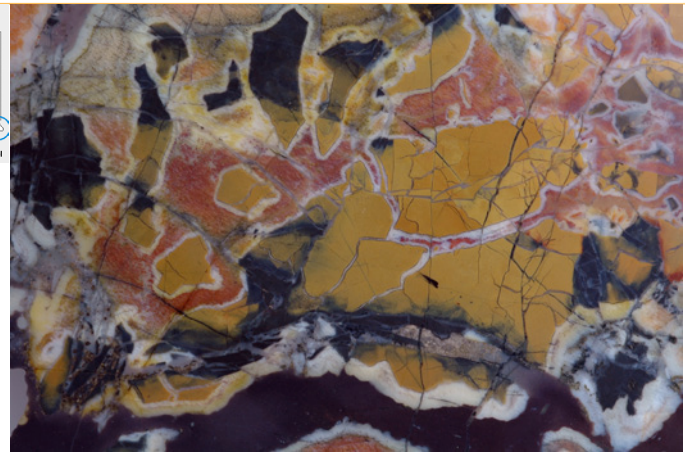
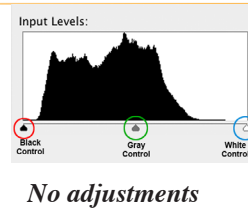


Notice the difference between the starting image and the final image after adjustments. It has better overall exposure, increased contrast and more intense tones. The beginning histogram has now been stretch over the entire range, and the mid-tone made slightly darker.

This is the typical type of adjustment that can be done with the histogram tool. Also notice there is little fully saturated white or fully saturated black showing loss of detail. This was achieved by carefully selecting the positions to move the triangular controls.

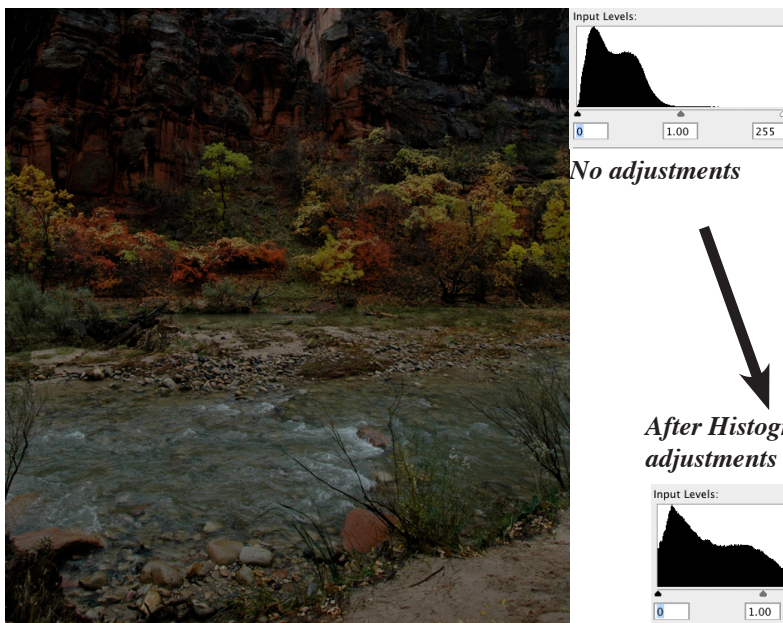
It is sometimes easier to see the magnitude of change possible using more familiar subject matter. The last pair of images (bottom of page) illustrate similar adjustments to those explained above, and the changes possible in the image and their resultant histogram.

In this particular photo the original image showed a histogram with virtually all tones lower (darker) than 50% gray. The image was flat



with no contrast. After moving the white triangle to about the mid-way point (middle gray) and the black triangle in just a tiny bit, The histogram now had a full set of shades from light to dark, and far more impact as a photo.

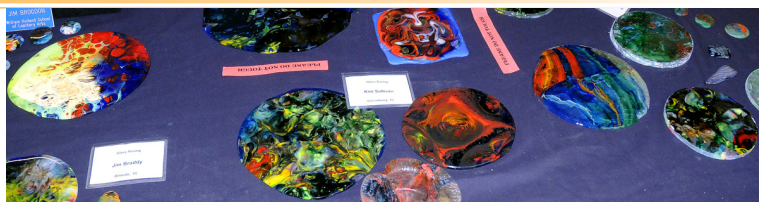
We'll look more at the histogram tool next month, and how to achieve a degree of color correction.



After Histogram adjustments

Scholarship Fun & Club Points!

by Kim Tyler



It's that time of year again to turn in your points sheets for participation in Charlotte Gem and Mineral Club activities for the past year! This is an opportunity not to miss—a chance to win a scholarship to either William Holland School of Lapidary Arts or Wildacres Retreat for a week of learning and fun.

I was blessed with one of these scholarships this year, and spent the week of August 15-21 at William Holland with my daughter Brittany. This was our 11th year at the camp, and is always the highlight of our summer. This particular week found our club well represented—there were 4 teachers and at least 4 students there from CGMC!

I was scheduled to take a Silver I class, but learned at Sunday night's dinner that there was a glass class being offered that was not on the original class listing. I learned to make sure to double-check all updates on the website! But things worked out—there was room for me in that class, and I really became one happy camper!

This glass class was focused on pot melts—a method of combining glass and heating it in a kiln so that it will flow to produce a new flat piece of glass. This is a slow-moving class because it basically takes a whole day to heat the glass and then let it cool, especially for larger pieces. So we sat around doing a lot of talking and mixing the colors for our next pieces.

There are a lot of issues a warm glass artist needs to consider when working in this chosen medium. One is how quickly glass is heated and cooled while in the kiln. Unfortunately, this

week presented a great lesson in another factor to be considered—why various glasses can not be mixed willy-nilly. The warm glass artist must be very aware of something called the coefficient of thermal expansion, shortened to C.O.E. This information refers to how the size of an object changes with a change in temperature—how much it expands with heating and contracts with cooling. Glasses of various C.O.E.'s cannot be mixed without adverse effects—they will crack, if not immediately, then at some point in the future.

And that's what happened to all but one of my projects—CRACKS everywhere. So, we spent the bulk of Wednesday, Thursday, and Friday trying to figure out what was happening. Were we cooling too quickly? Was there something wrong with the kiln shelf paper we were using? Was there something in the water we were cleaning with (I use distilled at home)? Finally, was some of the glass incompatible? We hadn't really considered this possibility because all the glass was marked as C.O.E. 90, and we figured the manufactures had marked it correctly.

We finally decided it was time to do stress tests on all the glass the teacher had provided. This involves cutting small squares or rectangles of various glasses and fusing them to a base piece of clear glass. You then check for bright halos around the edges of the colored glass pieces—the brighter the halo, the greater the stress.

This class, once again, reminded us it can not be hurried—this test

takes up a day of class time, although the teacher went back in the evening and got the pieces firing so that we could check them after lunch the next day. And, to our excitement and disappointment, we found the problem glass! Excitement because we now knew the cause of all our problems, and disappointment because I had used that glass in the majority of my work that week.

As it turns out, the glass was from a company that had just started making C.O.E. 90 glass. We decided they didn't quite have it figured out.... So, the lesson I took from this is that I will only use glass from one company unless I take time to do a stress test first. Good lesson—it wasn't a wasted week after all!

If you've never taken time to go to camp at either William Holland or Wildacres, you've missed a treat! And simply participating in gem club activities and earning enough points puts you in the running for a scholarship to help with expenses for the week. But you have to turn in your points sheet! Good luck to all, and thanks for my scholarship this past year.



Auction results are in, over \$1400 for club!



The "Big" and "Small" of it.



Money Launderer's

If it's the third Thursday in November then it must be the Charlotte Gem & Mineral Club's annual auction night. Everyone who was anyone was there! This turned out to be one of the largest auction in several years with tons of merchandise to bid on, and plenty of bidders to do their part.



Serious bidders ...



Current and past presidents

Danny Jones was our auctioneer on this night and did his best to explain what was being auctioned, although at times, it was about as much of a guess as a fact.



Ambassadors



Opalholics, collectors, teachers, and point totalers were all there and more !

Famous personalities were in abundance, current presidents, past presidents, future past presidents, past future presidents, the current treasurer, past treasurers, future treasurers, secretaries past and present, and ambassadors at large and small. All in one room!



The club made a little over \$1400 on the proceeds, thanks to all who purchased and thanks to all who donated.



Ex- Money Man



Past President

Santa's Surprise

by Sandy Lynn from Cobb-L-Stones, Dec. 1992

'Twas a cold Christmas Eve and Santa came calling -
The stars were all twinkling, the snow had stopped falling.
Next house on his list didn't run normally -
Rockhounds lived here, (they lived quite informally)

First thin he did as he came in the den,
was trip over a tumbler - he took quite a spin.
On to the kitchen for cake and a coke -
What he saw in the window almost made him choke.

Lining the window sills - strange little rocks -
He let out an "OUCH" (he had one in his socks).
Went to the living room - sat in a chair -
But he was up like a bullet - more rocks down there.

Cars in the driveway, covered with snow.
The garage? Full of rocks (wouldn't you know).
Mom and Pop's room was the strangest by far...
Big rocks, little rocks, rocks in a jar!

The rocks on the dresser someone had marked "Super" -
Santa stared for awhile, then left in a stupor.
He went to the john and turned rather pale -
No one would believe this incredible tale!

He looked around warily, scratched his white beard -
No doubt about it, these people were weird.
Rocks in the sink, rocks on the floor -
But in the bathtub, THE BATHTUB?, he couldn't stand more.

He looked rather shaken, he stopped by the tree -
A doll for sweet Susie, a guitar for Lee.
For Mom and for Pop he just left a short note -
Put it under a rock - this he hurriedly wrote:

"I'm sure you're not bad folks, just hopeless", it said,
"I honestly think, you've got rocks in your head!"

Matthews Live Scholarships Awarded

At the last Charlotte Gem and Mineral Show board meeting two scholarships were awarded from the funds taken in at our Matthews Live geode cutting event. The board read a large number of applications and eventually decided on two recipients.

This years winners are Ralph McGee and Ashleigh Alexander Hammac. Congratulations to both students who won \$750 club sponsored scholarships.

The internal club scholarships will be drawn at the Christmas Party. Two will be selected to attend their choice of classes at either the William Holland Lapidary School or the Wild Acres Southeastern Federation Weeks.

To be placed in the drawing you must turn in your point sheets to Linda Simon before the drawing. Point sheets can be downloaded from the Club WEB site (the front page).

There are two categories for the drawing. Those who have been with the club for less than 2 years, ... and everyone else. Those in the first category (less than 2 yrs) need to acquire 25 total points in the previous year. Those with more than 2 years need acquire 30 points.

So how hard is it to get points? Not all that hard. You get 1 point for each meeting attended, regular or board meeting. You get 10 points for being an officer or accepting a Committee Chairmanship,. Points are awarded for providing (and getting reimbursed) for monthly refreshments, for presenting at a meeting, for writing a newsletter article, helping out at a show or event, or teaching or attending a workshop.

Congratulations to the new officers - elected at the November meeting.

New 2011:

President: Murray Simon
Vice President: Dennise Trufan
Secretary: Pat Walker
Treasurer: Donna Forstner
Ambasidors: Scott Stewart
Mary Fisher
Past President: Jack King

