

GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB
NOVEMBER 2011

the Prez Sez ...

Are you in the mood for exploring hidden treasures??? Do you have empty spaces on your workbench and shelves that need to be filled??? Have we got an auction for you!

Our next meeting on Thursday evening, November 17 will feature our annual auction and this year's event is going to be an exciting one. A few months ago we acquired a donation of several pieces of equipment and rough from a retired commercial jewelry maker. There are saws and grinders, a polisher, a faceting machine, a Fordham (with handpieces and tool pedal), a casting machine and oven, etc., etc.. Jimmy and I were at the trailer recently with the new generator testing the equipment to be auctioned and found it all to be in working order.

These pieces may not be shiny and new but for a modest price and some elbow grease, you can have the equipment you need to either start that lapidary workroom or till in an important missing piece. In addition, we are bringing along a donated collection of rough and minerals that has been stored in Sarah Lee Boyce's basement for

the past 4 or 5 years. I've seen the contents of these boxes and there are slabs, rough and mineral specimens to peak everyone's interest. If you want or need materials to cabochon or facet or, perhaps, something different to display on a shelf or in the garden - you will want to attend this event!!

If you've got extra materials, tools, etc. that are taking up space bring them along and we'll auction them off. In the past we have had hard hats, clock faces on wood, stained glass pieces, jewelry, books, paintings, etc.. Whatever you decide to donate, please make sure it has some connection with the world of lapidary (leave that old TV at home). Even if you don't need anything in particular or have nothing to donate, there's lots of fun to be had in just sitting back and watching the competition to purchase some of these hidden treasures

Auctions usually take a good bit of time so we will hold the business meeting at 6:30 and hopefully start the auction promptly at 7. Cash and checks are accepted - no credit cards. If you wind up buying a piece of equipment it must

be removed from the premises after paying for it at the end of the auction. The money raised from this event will go towards improving our program of lapidary classes for CG&MC members for the coming year(s), buy food for the Xmas party and summer picnic, etc..

Before you get all wrapped up (pun intended) in Christmas planning and events, please make note of our Xmas Party on Friday evening December 16 which is held instead

Table of Contents

- 1-2 Prez Sez
- 2 Editor Comments

- 3 Meeting Notice
- 3 Jr. Meeting notice

- 4-7 20 Years of Experience

- 8 January Meeting CHANGE!
- 8 Holiday Party announcement



2011 CGMC Officers & Board

President

Murray Simon
msimonnc@gmail.com
(704) 668-5658

Vice President

Neil Hohmann
gisisainc@aol.com

Secretary

Pat Walker
704/523-5261

Treasurer

Donna Forstner
cinder_ella@bellsouth.net

Directors at Large

Scott Stewart
sstewart5@bellsouth.net

Mary Fisher
mefisher@att.net

Bulletin Editor

Ron Gibbs
theimage1@aol.com

Past President

Jack King
tackyjackie@bellsouth.net

CLUB CHAIRPERSONS

SFMS Contact & Stamp Chair

Pat Walker

Geode Chair

Jimmy Strickland

Refreshments Chair

open

Workshop Chair

Linda Simon
lsimon1@carolina.rr.com

WebMaster

Ron Gibbs

Librarian

Pat Walker

Field Trip Chair

Jack King
tackyjackie@bellsouth.net

Christmas Party Chair

Pat Walker

Special Events

Kim Gwyn

WEB Site
www.charlottegem.com

of a December meeting. In addition to fine food and good fellowship, we will be awarding scholarships to UNCC students, installing the 2012 slate of officers and Ron, Jack, Jimmy and I will be performing our traditional Christmas Dance of the Sugarplum Fairies.

So mark your calendars now for 12/16 and watch for our Xmas Party Blast early next month with all the details and directions.

It's hard to believe that the first year of my 2-year term as president

is coming to a close. I want to assure the CG&MC membership that 2012 will not be a year of coasting and reflecting on past events. There are plans already in play that will expand our club's imprint among southern gem and mineral clubs as well as its impact on club members and the Charlotte community. I invite you all to stay tuned for further details as we head into 2012.

Murray Simon

International Infrastructure Opiner, Legacy Tactics Agent, and current President of the CG&MC.

2011 Notes from the Editor

that would be me ... ron gibbs

In last months newsletter are photographs of most of the equipment going up for sale at the auction. Grab a copy on-line and have a look at the variety of equipment that will be available, although most of it is old, it has a good pedigree (i.e. it comes from some of the best lapidary manufacturers out there, and has survived because it was *made really well.*) With a little elbow grease most of it can be made to look and work almost like new.

As acting editor of this newsletter I have taken many liberties with the content. Mainly because only a very few people ever provide me with any!

I have taken upon myself this year to provide a wide variety of leadership titles for the "president and chief executive officer, first bottle washer, and reluctant leader of the pack", Mr. Simon. Why? Because

it amuses me. If you wish to be bestowed with any titles yourself, let me know, I can accommodate. There are many good sites on the internet which provide them automatically! I have used several this year to create the various titles and accolades.

Anyone wishing to further their literary skills can submit articles to me at any time, I have never failed to print anything provided, assuming it was legal to do so. I have manage to accidentally change a few words here and there, often do to the auto "speelung schekcer." Arrangements can also be made for anyone wishing to take over the job of newsletter editor or webmaster. You need only apply and this too can be easily granted.

Thank you .

ron gibbs Editor, Dynamic Consultant for Foreign Bloviating and Principal Paradigm Designer

Charlotte Gem & Mineral Club Monthly Meeting

November 17, 2011 Thursday --6:30 pm --

**Location: Charlotte Nature Museum
1658 Sterling Road Charlotte,
NC, 28209 (704) 372 - 61261**

Notice the slightly earlier starting time ... 6:30 rather than 7:00 pm.

The Annual Club Auction

*Piles of interesting, oft-time amusing,
some times confusing, occasionally educational,
but mainly bemusing “STUFF”.*

At a price you won't forget!

Join us for an evening of fun!

Charlotte Gem & Mineral Club Jr. Rockhounds

Saturday, Nov 26

10:00-11:00 AM

Matthews Community Center

Topics: Crafts and Jewelry

Contact Mary Fisher for further information at: mefisher@att.net

The next meeting will be Saturday, January 28, information to follow

Twenty Years of Making Jewelry

By Jim Crowe

Gravel Gazette 1999 photos by ron gibbs 2011

After twenty years experience of making fine jewelry I now feel competent to pass on to you the secrets of the trade qualifying me as the expert I am in the field. Particularly in the cutting and grinding of gemstones. While most people can produce a true work of art on their first attempt there are many of us that require a bit of perseverance to build up the confidence and skills gained through experience. A step by step instruction is hereby provided starting with the beginning.

Collection of the raw material. Finding rocks suitable for the fabrication of gemstones is best done by going outdoors as most come from there. A most notable exception to this rule is southern Mississippi where we now live. At our home the rocks are inside, whether it be the house, a shed, or on a covered concrete slab where they won't get rained on and slowly sink into the earth or disintegrate through excessive sunlight and humidity. So one must go somewhere else to pick up rocks. This I did in my youth when I went to places other than Mississippi. Now that I never leave home I depend on using the rocks I got a long time ago or that other people give me.

It is not important to pick up every rock you see, for there are some that don't make good jewelry. Examples of these are clumps of mud and dried dirt. I have in my collection a beautiful chunk of sandstone which when brought inside became a jar full of fine colored sand. It's still pretty but unsuitable for cutting and polishing. Some real rocks aren't too good for making jewelry because they are too soft and will wear away or get all scratched up by simply wearing them, if that's what you do often with jewelry. Talc, gypsum, and calcite are examples

of rocks that aren't good for making into things to wear. They are good for carvings to set on a shelf. Then there are some rocks that just aren't pretty enough to make into jewelry. Pick them up anyway. The funny thing about rocks is that, like people, they might be good on the inside.

Cleaning the rocks. Some rocks need a little cleaning up after you get them home. This can be accomplished by something as simple as wiping them off on your pants. Others require washing in water or a detergent. A mechanical cleaning with brushes or sandblaster may be suggested for hard rocks. A large hammer can be used to break rocks into small enough pieces that fresh fracture sides will appear clean. Some need a hard-core treatment like soaking in an acid solution. As can be seen from photographic evidence some rocks are adversely affected by hard core treatments. Similar results can be attained with the hammer approach.

Cutting rocks. It is with this step that some special tools might be necessary. If you are cutting rocks that are pretty soft a general purpose carpenter's saw will do. For gem quality rocks to be cut in a plane we get into rock saws. These are power tools with diamond coated blades or at least blades harder than the rock being cut. Saws come in varied sizes. My largest saw has a twenty-four inch circular blade. It's good for cutting rocks up to about ten inches in diameter.

If you are a good gem maker you don't need to start with rocks that large but if you are new at the business that may be a good size because beginners generally waste a lot of the raw material in the cutting, grinding and polishing stages of making a gem. There are several other

saws around the shop most of which don't get used either because they don't work or are too messy.

All rock saws need a coolant so blades don't get overheated and ruined. Water can be used to cool blades but I usually use a special oil coolant that is recirculated over the rock that is being cut. This means that a desirable feature is a cover of some kind over the blade to contain the oil and prevent it from flying all over the room and the operator.

On larger cuts it is nice to have a vise to hold the rock (figure 1) and a drive mechanism to push the rock over the blade. By leaving the rock in the vise between cuts and moving the vise to the left with a turn screw, perfectly parallel cuts can be made in the rock. The piece then cut off results in a flat slab. (Figure 2) With a switch to automatically turn off power when the rock is cut in two, the saw can run without operator attention. This is wonderful for large rocks often taking up to an hour or so for a cut.

Once a slab has been cut to the thickness desired it is often necessary to make further length and width cuts with a small saw. Six inches is the common blade diameter for a trim saw. It permits the operator to hold the piece with the fingers and rapidly cut off unwanted parts of the slab. A deflector is usually placed above the blade to direct the coolant away from the operator's face. It's nonetheless advisable not to be wearing Sunday clothing while cutting with a trim saw. If the rocks you wish to change to gems are small to begin with it is only necessary to have access to a trim saw.

The usual procedure in gem making is

to cut slabs, mark the shape you want the gem, cut slab to roughly that shape, grind it down to the desired shape, and polish the gem. (Figure 3.) Rocks that are not transparent are usually cut into shapes called cabochons. That is, they are flat on one side and rounded on the top.

Transparent rocks are often faceted. They are ground to have many flat surfaces at precise angles to each other so that light can enter through the surface and bounce around inside and be reflected back to the eye in a most pleasing angle.

First we shall take up the matter of cabochons, or cabs, for with these one machine can do the whole job. I have more than one grinding machine because mine are the ones that other folks didn't want anymore since all the features designed into them, no longer work.

Grinding. My favorite grinder is a small one with two diamond coated wheels. The wheel on the right has a coarse grit #80 which grinds away rock at a rapid rate. This is great for hard rocks from which most gems are made. In my twenty years of experience I have learned not to use it on delicate softer material like opal. A momentary distraction or just a little too much pressure can ruin a good opal while grinding a soft rock on this wheel.

The wheel on the left is of smaller sized diamond grit (#600). It's not exactly the coarseness I want in order to remove the scratches that remain after the first grinding. So I go over to another machine that has a wheel somewhere in between these two densities.

Once the slab has been cut and trimmed down to the approximate desired shape, it can be held rather gently against the coarse wheel of the grinder (Figure 4.) until it exactly meets the outline you may have drawn on the stone or is pre-

cisely that outline you want. It is very important during these steps to have the wheel wet so things will stay cool despite the friction and to wash away the ground up remnants of the stone. Water is usually used as a coolant here because it is cheap and has a more pleasant smell than oil.

Sometimes I add a little product called rust inhibitor to the water which supposedly keeps the grinder from getting rusty and mostly keeps the manufacturer of the product in business.

While holding the rock up against the spinning wheel it is very likely that the fingers will brush the wheel. This normally does not hurt fingers, for the skin on fingers is relatively resilient and will withstand short periods of rubbing. On the other hand (the left hand if you are right handed) the fingernails are hard enough to be scratched and ground down by the wheel. Some folks find this annoying and employ a dop stick (Figure 5.) so fingernails needn't be so close to the rotating wheel.

The dop stick whether it be of wood, metal, or plastic is fastened to the rock with some kind of adhesive. This is usually some variety of wax that is heated and melted between stone and stick. With the stone on the stick, hold the edge of the stone against the grinding wheel (Figure 6.) at such an angle that you can remove a layer of material all the way around the piece. A mark circling the piece near the base will aid in preventing grinding the circumference to out-of-round while leaving a small even girdle at the base. Next grind off another layer at a steeper angle all the way around the stone above the first grinding. Continue grinding at steeper angles until the stone is dome shaped if that is your object.

A dome shape is the most common cabochon. The most usual error in this step is ending up with the stone too flat on top. While still using the same wheel



1/4" slabs -fig. 2 (mookaite jasper)



Cabochon outline is marked on slab, then a small trim-saw is used to cut close to the outline (fig 3)



Coarse Grinder Wheel - (Fig 4)



Dopping the stone - (Fig 5)



Holding dop instead of stone - (Fig 6)



Domed stone ready for polish- (Fig 7)

grind off the bumps and ridges until you have a perfect dome. (Figure 7.) The stone will have this same shape after going to the next grinding wheel. But you must use other wheels to remove the scratches left by the coarse grit grinder.

Polishing. The reason I use more than one grinder is to save time. If you go from a coarse grit, say #80, to a grit that is too fine, it will take forever to remove the scratches left by the larger sized diamonds or whatever you are using. So I go from coarse grit to a slightly finer grit wheel. At this point, and at the end of the coarse grit, I continuously move the stone around on the face of the wheel so all portions of the stone are removed of those scratch marks.

The stone will now look a bit shinier, especially when it is wet, and it should be wet from the coolant being thrown from the wheel. Next go to a finer grit to take more dullness from the piece. Rinse off the stone as you go from coarser to finer grit so as not to carry the scratch-making grit with the stone. About three different grinding wheels will make the stone nice and smooth. After using about a #1200 grit wheel you can go to a polishing wheel that doesn't even need water on it.

These are usually disks that protrude out from one end of a grinding machine. (Figure 8.) They generally need a bit of the polishing compound of your choice added to the wheel or disk from time to time. There are so many kinds and brand names of polishing compounds on the market that I won't go into that. Some are marked with the fineness of the medium. Others are only identified as polish, such as rouge, cerium oxide or whatever.

Different rocks seem to take the best shine from different polishing compounds. I keep several little disks and wheels in zip-lock bags to change the out as needed. Bagging them helps to keep out foreign material that might scratch a nearly finished gem.

After your stone has been turned into a gemstone and is all bright and very shiny it can be removed from the dop stick. There are many ways to do this. You can slam it onto a concrete floor. This is a little risky because the gem could break before the dopping material. You can soak it in acetone or some other solvent that melts the wax. This takes some extra time and energy. You can cut the wax with a sharp knife. I never have a knife that sharp. You can melt the wax with fire. Some stones change color with heat which may make this method undesirable.

The simplest method I have heard of is putting the stick and stone in the freezer for five or ten minutes. When removed the stone will pop off the stick with a twist of the fingers. If any wax remains on the stone even a dull knife will scrape that off. This method works sometimes even when you don't want it to. Before my shop was heated in the winter stones would come off the stick during cold weather at most inopportune times.

Once the new gem is off the dop stick it can be rubbed against a rag with some polish on it to remove smudge marks. If the back of the stone is going to be mounted in jewelry where it can be seen you may wish to polish the back of the stone. It's even possible to grind down and polish in the same way, the other side was done. (Figure 9.)

Mounting gems in jewelry. There are so many ways to set stones into jewelry that we can't hope to cover all of them, or for that matter, any of them completely. None of the methods can I do well but that is understandable for I've only been doing jewelry for twenty years. At this point in life I'm concentrating on getting a good polish on stones. If I ever do a good one I'll consider mounting it.

Stones can be set by wire wrapping, casting, smithing (gold, silver or other

metals), gluing onto another object, embedding (in plastic or other transparent material), or just setting it on a pedestal. Most of my gems just go into drawer waiting to get finished.

Silversmithing is so fascinating that I have taken three classes in that art. Beginning classes all. I have turned out some interesting pieces by this method. Not good but interesting. In class it's easy but I seem to forget how to do it by the time I get home. It involves getting some wire or plate of a weight and shape desired and bending and soldering to get the gem and perhaps a finger into it in the case of a ring. Bending isn't the hardest part of silversmithing. Soldering is the big trick. Flame from a small torch is applied to clean metal that has some flux (Figure 10.) and solder filings on the parts you want to join together.

When the temperature is just right everything melts together (Figure 11.) and the flame is removed. In real practice there is a glob of molten metal remaining or else the parts aren't joined properly. A paste containing both solder and flux can be purchased. As with straight silver or gold solder, it comes with different melting temperatures so progressively lower temperatures can be used as each layer of work is being done without melting down that done earlier.

If the parts manage to come together as desired the piece is soaked in a warm acid solution to remove the crud on the outside. A little filing (Figure 12.) is then needed to make it nice and smooth so no sign of the joints are visible.

As with stones, scratches left by files or a coarse grinder, as I often use, must be removed. A good polishing will make the metal look its best. (Figure 13.) Then if everything was done right the stone or stones can be placed in the metal to see if they fit. If the sizes match rather closely the metal can be stretched a little or the stone can sometimes be cut down a hair. If they don't, as so

often happens, now is a good time to start all over again.

Don't throw the stones or the settings away though because after a while you will have a large box full of stones and settings. Laws of random selectivity will eventually provide you with two or more parts that will match in size.

Many methods have been devised to prevent stones from falling out of your jewelry. Little prongs built into the metal findings are popular with faceted stones where you want as much light to get inside and bounce around a lot before coming back to the eyeballs. The prongs are simply bent over the stone near the top of the stone. For some stones, glue alone works pretty well.

Continued next month ... part II



Solder and flux (fig 10.)



Solder melts (fig 11.)



Polishing on leather flat wheel (fig 8.)



Finished free-form CAB (fig 9.)



Filing to cleanup (fig 12.)



Polishing wheels (fig 13.)

There will be NO pre-meeting jewelry class this month due to the length and early start of the auction look for resumption of classes after the first of the year in our new location.

Annual Christmas Party 2011

When: December 16th, Friday

Location:

Amity Presbyterian Church
2831 N Sharon Amity Rd, Charlotte, NC 28205-6699

Time: 6:30 pm

The club is providing the usual meat dishes and drinks. Also the paper plates and glasses, members should provide salads, vegetables, and any other home-made specialties for the season. The club will provide deserts.

Remember to get your point sheets turned in this month at the auction or mail them to Linda Simon before the end of the month. (Point sheets are available from the club Web site.) These are used in a random drawing to determine who the club will sponsor for William Holland or Wild Acres SFMS classes next year.

The UNC scholarship winners will also be announced at the party. Please RSVP with the number of people attending to Pat Walker by December 7th.

A quick set-up of tables and chairs will be done at 1:30 the day of the party, volunteers are always welcome. The process typically takes about 30-45 minutes.

Beginning in JANUARY there will be a new regular meeting location for the monthly meetings of the Charlotte Gem & Mineral Club.

Due to increasing costs next year the club has had to find a new location for it's regular Thursday night meetings. After examining several alternatives the board has selected the Tyvola Senior Center.

This center provides adequate parking, excellent (larger) facilities and easy access. It also allows food and drink in the rooms. We will begin our affiliation with the January meeting next year.

The center is located between South Blvd. and the Southpark Shopping Center.

Tyvola Senior Center
2225 Tyvola Rd.
Charlotte, NC 28210
(704) 522-6222

Entrance is on Tyvola Rd., parking is located behind and to the side of the building.

