

GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB
JULY 2011

the Prez Sez ...

I hope this message finds you cool and comfortable. I understand a bunch of us missed a very fine presentation at the June 16 meeting (I was in Atlanta) It's been a while since we have had a talk by a recipient of one of our scholarships for UNCC students. As most of you know, the funds we work hard for by cutting geodes at Mathews Alive every Labor Day is targeted for scholarships for two or three Earth Sciences students. Our club has been raising these funds for over 35 years at this same venue.

In her talk, Michelle Flowers described how she used her stipend to buy materials and utensils to use in the gathering, storing and recording of pottery shard specimens throughout the state of North Carolina. This was done in the pursuit of an advanced degree in Earth Sciences. Our vice president, Neil Hohmann, told me her use of the scholarship money was done in a most appropriate, resourceful and admirable manner and gave him a feeling of pride in being part of an organization that supports efforts like hers.

If for some reason you missed out on all the fun and excitement of last year's Mathews Alive Festival, your chance to do so this year is on the not too distant horizon. Plans are already in motion for this Labor Day event that starts on Saturday of the Labor Day weekend and goes through Monday afternoon.

With an average of over 30,000 people attending, our success in this venture is highly dependant on responses to our call for volunteers among the membership. The best thing is you don't need to know a thing about geodes (but you will before the weekend is over) to be of value in this project. We need people to greet customers, take money, promote the Charlotte Gem & Mineral Club and watch the look of amazement on the children's faces as they are the first to look inside their carefully chosen, freshly cut geode. Some members come every day for a number of hours; others devote a morning or afternoon.

This year we are making volunteer participation more tempting by offering a beautiful Kelly Green Tee shirt with a woven CG&MC

logo free to anyone who volunteers at least 4 hours of time to one or both of the September events. We need to know what days and hours you're available and what shirt size (men's sizes) would be appropriate. You can either sign the sign-up sheet at the next meeting or get the information to me via email at www.msimonnc@gmail.com.

Mathews Alive and Mint Hill Madness (see next month's "Prez

Table of Contents

- 1-2 Prez Sez
- 3 July Meeting Topic
- 4-5 Porcellanite
- 5 The Luster of Pearls
- 6-7 SFMS Workshops
- 7 Pre-meeting Class
- 7 Volunteers needed
- 8 Upcoming Shows



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www.charlottegem.com

Says”) are the only times we solicit help from the general membership. Your annual dues help to support the club’s activities but when you consider that membership provides you with meetings and educational programs each month, cabbing and jewelry making classes, guided mineral digs, a Christmas party, etc., there are times when we need you to step up to the plate and contribute more than that \$20 or \$25 dues payment.

Right now the CG&MC board is very busy with behind the scenes preparations for Septembers’ events – Jack King has been in internet communication with China to get the logos (created by webmaster Ron Gibbs) woven for our new Kelly Green Tee shirts, our vice president Neil Hohmann is busy running around to various quarries to locate an appropriate (and hopefully donated) sluicing material (we need about 3000 pounds).

Jimmy Strickland is about to pull the saws from our storage trailer on Independence Boulevard to clean them and make sure they are running smoothly, and Leslie Thompson and Vivian Philson are actively signing up volunteers and will be issuing time schedules for those of you who will be working our two major events.

Scott Stewart is arranging for (and donating) gem materials for the sluice bags, Hank Trufan and Brad Glover put their woodworking skills to good use creating and building a sluice we can all be proud of, Kim Gwynn is heading up the Mint Hill Madness program

and is busy cracking the whip to get things done on time, our secretary Pat Walker is heating up her iron and getting ready to iron on a bunch of logos for our new tee shirts.

Our treasurer Donna Forstner is keeping our bank account up to date, tracking expenditures and running around renewing our club CD, Mary Fisher (our queen of the Jr. Rockhounds) is making strategic donations of time and money that motivate us to press on

. . . and me . . . I just sit back and marvel at the degree of commitment these people have to our club and its success. I’ve told you all this to give you a sense of how much work it takes to keep an organization like ours going and, frankly, to try to motivate you to jump in and heed the call for volunteers that will be forthcoming over the next two months. Have a great summer

Murray Simon

President, Chief Bottle Washer, Magnetic Personality, and creator of the longest sentence ever attempted in a single newsletter (now broken into pieces by the editor) of the Charlotte Gem & Mineral Club.



CRAZYLACE AGATE MEXICO

Charlotte Gem & Mineral Club Monthly Meeting

July 21, 2011 Thursday -- 7:00 pm --

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

***“Hydrogeomorphic processes influencing ephemeral streams in
forested watersheds of the southeastern Piedmont U.S.A.”***

***by Ralph McGee
previous scholarship winner of the
Charlotte Gem and Mineral Club***

Ralph measured several geomorphic (*shape of land forms*) and hydrologic (*pertaining to water*) characteristics in the dendritic (*branch-like structure*) system of ephemeral (*short duration*) streams that drain hillslopes in the North Carolina Piedmont. Over 100 forested channel heads were mapped across four underlying lithologies (*characteristics of rock structure*). Local slope of the terrain and contributing area were measured at each location in an effort to better understand the role topography (*shape of surface*) and lithology have on the position of channel initiation in the region.

In addition, crest stage gauges were installed in the thalweg (*deepest inline area*) of six forested ephemeral channels. These gauges measure the magnitude and frequency of flow in these normally dry streams. In addition to the stage gauges, precipitation and volumetric soil moisture were recorded continuously through the year. Together, these datasets were analyzed to ascertain and quantify intrinsic relationships between hydrologic response of ephemeral streams, antecedent soil moisture conditions in the watersheds, and variation in precipitation characteristics.

The editor freely admits, he added the parenthetical (in parenthesis) information in the above description to better comprehend (understand) what Ralph did. So shoot me if it was unnecessary for you! It's called “editorial license” (the ability to do whatever I want because I am the editor!)

Charlotte Gem & Mineral Club Jr. Rockhounds

They continue their current hibernation until cooler wether prevails in September

for more information on the group contact Mary Fisher: mefisher@att.net

Haystacks, Clinkers, and Porcellanite: Musings on Montana

by Judith Washburn

A “rocky” tale about haystacks you ask? Well, while most folks on the field trips in Montana were “ooh-ing” and “aahing” about Montana Moss Agate and black and white Bear Canyon fortification agate or all agog over ammonites, scaphites, and baculites, I was held in awe by haystacks, clinkers, and porcellanite. What? Everyone knows I’m a city girl who is overly fascinated by cows, chickens, and rows of corn. But I’m not talking about stacks of hay that you feed the cows.

In the geology world, a haystack is a conical shaped structure on the landscape. In Montana, haystacks can be igneous intrusions that are probably a part of central Montana’s igneous activity of about 50 million years ago, or sedimentary structures topped by erosion-resistant material. The most prominent non-dinosaur bearing formation in Montana is called the Fort Union Formation. Its’ astronomically large coal content makes the Fort Union formation the most valuable body



Bubbly clinker (Photo by author)

of rock in the state, probably one of the most valuable in the world.

The actual amount of coal is unknown, but certainly staggering, more than 50 billion tons, an unbelievable reserve of fossil fuel. As streams cut down through a coal seam, the water drained out of it. Sooner or later a lightning strike or a range fire ignited the dry coal and it burned. Burning coal seams may smoke and smolder for centuries until the fire finally runs out of fuel. Baked rock is left behind above the burning coal seam - called clinker.

Red, black, or yellow- gray in color, this bubbly looking material can be a signal of a coal seam for those looking for one. When the shale above a coal seam is heated for a long time, it becomes hard and dense and takes its name from its resemblance to unglazed porcelain.

Frequently porcellanite is an impure variety of chert containing clay and calcareous matter. To my surprise, I found a display at the Billings, MT, Show that was



Polished porcellanite

completely made up of cabochons and free-forms all made from local porcellanite. It was fantastic! I fell in love with this material and kept my eyes open for any signs of it.

A young man from one of the Michigan clubs, who knew that I was interested in petrified wood and was bemoaning the fact that I hadn’t found much of it, came up to us excitedly one day out on the trail and said he had scrambled down the hillside and came upon a huge piece of petrified wood. He lugged it back up the slope and called us over to look at it. He offered it to us saying he didn’t have room in his van to take it home. (His van was filled with rocks, and three kids!)

John looked at the piece and we thanked him profusely for his thoughtfulness, but John broke the news that the piece was not petrified wood, but was actually a large piece of porcellanite.

I was ecstatic and had John help me lift it into the back of our van.

(This may have been the “straw that broke the camel’s back” - really the cause of John’s painful back!)

The moral of this story: There’s always another rock to fall in love with!!
(This article from the *LOESS BULLETIN*, the monthly publication of the Lincoln Orbit Earth Science Society, Springfield, Illinois, October, 2009)

Steve Morse took a picture of coal burning underground at the Starved Rock Clay Products mine.



The Luster of Pearls

by Dr. Bill Cordua

Pearls occur in Wisconsin, Minnesota, in the shells of fresh water mollusks along the Mississippi River, and in other rivers and lakes in our region. Their harvest and crafting into fine jewelry forms a small but vigorous cottage industry. The mysterious luster of pearl has delighted humans since the dawn of history. It is alluded to in Hindu literature and the Bible. Without this luster, pearls would be a biological curiosity rather than a sought-after gemstone. To what physical effect do pearls owe this distinctive luster?

Why nacre?

Pearls form as growths which many species of mollusks secrete around impurities. The outer part of an oyster shell consists of a layer of calcite or, more rarely, aragonite. The calcite crystals line up perpendicular to the shell’s surface, giving it a coarsely fibrous appearance. Inside is the nacreous layer. The nacreous layer is made of thin plates of aragonite in a network of a horny protein called conchiolin (C₃₂H₄₈O₁₁). The nacreous inner lining of the mollusk is called mother-of-pearl and has the same luster (for the same reasons) as isolated pearls. When a bit of grit gets between the mollusk’s tissues and nacreous layer, the mollusk



secretes a coating of nacre around it, isolating it from the rest of the shell. Blister pearls, growths still attached partly to the shell, show an intermediary stage of this process.

Why luster?

What is it about nacre that gives rise to luster? The answer is linked to the common test used to distinguish true from artificial pearls. True pearls feel rough against the teeth. This is because the surface of the nacre consists of thousands of tiny overlapping plates of aragonite, whose edges give the rough sensation. These edges also interact with the light that falls on the pearl’s surface.

Then there is diffraction

The light striking the pearl experiences a phenomenon called dif-

fraction in which light is split up into a spectrum of color by passing through a tiny opening. The different colors of light bend differently, separating them into their color. The edges of the aragonite flakes act as tiny spectra, playing out as we turn the pearl to different angles. The light striking the pearl’s surface also experiences an interference effect at the grain boundaries. This occurs as different rays of light partly emphasize or cancel out different colors as they are bent differently at the platelet edges. The thinner and more numerous the plates, the more pronounced is this effect.

Knowing that, we will have one less question to ask St. Peter when we get to heaven and are standing by those gates.

Dr. Bill Cordua, U. Wisconsin-River Falls

References: Kunz, George F., 1913, The Curious Lore of Precious Stones, Dover Pub., 406 p.
Webster, Robert, 1994, Gems: Their sources, Description and Identification, 5th edition, revised by Peter G. Reed, Butterworth, Heinemann Ltd. Pub. 1026 pp.
From: Breccia April 2009 via Delvings May 2009

(Article from “The Rockcollector”, Newsletter for the Rochester Lapidary Society, March, 2009 Rochester, NY)

2011 SFMS WORKSHOP CLASS SCHEDULE

Workshop Staff

Wildacres Director, Julia Larson

204 37th Ave North, #250 St. Petersburg,
FL 33704 727-522-1254
Email: wadir2011@yahoo.com

William Holland Directors, Denise & Carl Talbott

216 Spring View Drive Murphy,
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8802 N US Hwy 1 Suite 10 Sebastian,
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996 Indian River Boat Dock Rd Jacksboro,
TN 37757 Phone 423-562-9555
Email: whregistrar10@yahoo.com

Education Chairman, Kathy Morris

551 Grayce Lane Hiawassee,
GA 30546 706-896-3256 252-571-5050
Email: klmorris45@hotmail.com

The intermediate and advanced classes listed with an asterisk (*) require some prior experience by the student. Experience in a class provided by your local club, Workshop class, or self study may be enough. If you're interested in one of these classes, please do not exclude yourself without contacting the instructor first.

Session Two - WILDACRES Monday, August 22-28, 2011

Seed Beading	Barbara Green
Cabochons	Pat Davis
Cold Connections	Kathy Morris
Faceting	Steve Hillenbrand
*Fused Glass Advanced	Rich Dillon
GEM ID	Mary Lou Kick
*Metalsmithing - Advanced	Jeff Shears
Silver 1	Shanon Stafford Annette Gibney
*Stone Setting	Don Roberts
Wire Beginning	Velima Lawson

Session Three - WILDACRES Monday, September 12-18, 2011

Cabochons	Anita Westlake
Casting	John Lacullo
Chain Beginning	Kathy Morris
Lampwork	Linda White
Mineral ID	Scott Forward
Silver Cold Connection	Charlotte Caughman
*Silver Filigree	Shanon Stafford Annette Gibney
Wire Beginning	Bonita Harris

Session Four - WILLIAM HOLLAND Sunday, October 9-16, 2011

Bead Weaving	Ron Midkiff
Cabochons	Anita Westlake
Chain Making	Dee & Bill Cony- bear
Enameling	Lynda Williams
Faceting	Mary Lou Kick
Fused Glass	Addy DePietro
Jadeite Bas-Relief Carving	Bill Smith
Lampworking	Cindy Reed
Opals	Joe DePietro
*Silver Filigree	Stafford/Warrick
*Southwest Silver	Dan Haga
*Silver II	Vicki Prillaman
Wore I	Judy Peppers

SFMS Workshop Tuition

You are encouraged to pay the full amount at registration time. However, a \$25 non-refundable deposit per person must accompany your registration. If you send a \$25 deposit the remaining balance is due one month before the beginning of class.

Tuition Cost per Person:

William Holland:

\$310 double occupancy
or \$470 single.

\$140 day student or camper.

Wildacres:

\$330 double occupancy
or \$490 single.

\$160 day student.

Non members add \$50.00 to all Tuition fees

Remember the tuition covers not only the class, but also the cost of the room, and all of your meals. This is one of the best bargains on lapidary training anywhere.

There may be additional fees collected by the instructors for materials. Check with them to get an estimate of material cost.

Wildacres has only a few weeks out of the year where lapidary training is available. William Holland offers classes from the spring through early autumn in addition to the SFMS classes. Check their WEB site for further availability. <http://www.lapidaryschool.org/>



STONE CANYON JASPER CALIFORNIA

Making you own jewelry - using only a pasta machine and oven!

Linda Simon is back from a grueling trip just in time to once again hold a training session prior to our regularly scheduled Thursday meeting.

Linda, her regular followers, and any others who wish to learn should show up at the nature center and prepare for some camaraderie and learning as Linda rolls out some new ways to create jewelry using an array of equipment, including but not limited to a "pasta machine!"

Yes, it's actually possible to "roll-your-own" jewelry with a simple pasta maker, and oven. (And you thought spaghetti was all you could do with that set of tools.)

Come on out and have some fun, it starts at 5:00 p.m., and will continue until just before the main event, the 7:00 p.m. presentation discussed on a previous page.

For those with more traditional tastes (less epicurean), Linda can also demonstrate jewelry created from silver, gold filled wire, beads, and a few common garage tools (OK - maybe these special pliers are a bit more high-end than those typically found in a garage.)

Come on out, and you will go home with something new to wear, or at the very least a few new ideas about the creation and design of jewelry.

Volunteers Needed for Club Events in September

In September the Charlotte Gem & Mineral Club has agreed to participate in two events. (Only one more than normal for this time of year.)

The first is the Matthews Live weekend, where we will once again cut geodes to finance our scholarship programs. Evident at our last meeting and next meeting where two of the scholarship recipients spoke to the club about their work.

The second (new event) is known as Mint Hill Madness, and runs only 1.5 days, but promises to have far more people in attendance. Here is chance for our club to make some additional funds to continue financing our capping machines, and related classes.

We know you cannot commit for the entire weekend (very few can), but we need a few hours of help from anyone and everyone to make both events a success. You don't have to know how to cut a geode as long as you can take the money, make change, and wrap up the goods. And just talk with the customers about the club.

Please sign up for one or more time slots during the next couple of meetings. At the Mint Hill event we will be unwrapping our new sluice and we need people to help with it. The timing for Mint Hill is a bit weird with it running late into the night. (But we have plenty of day jobs too!)

Upcomng Rock & Gem Shows

Jul 28 - 31, 2011

Franklin, NC

Gem & Mineral Society of Franklin, N.C., Inc. 46th Annual Gem-boree , Date(s): When: Thursday - Saturday 10am - 6pm, Sunday 10am - 4pm Where: Macon County Community Building US 441S Fine Jewelry, Rough & Cut Gemstones; Minerals, Fossils and More! Second oldest gem & mineral show in the Southeast featuring dealers from across the United States. Rough & cut gemstones, minerals, lapidary equipment and much more! Sponsored by the Franklin Chamber of Commerce and the Gem & Mineral Society of Franklin. Adults \$3, Children 12 and under free. Contact 888-337-7529 (Franklin Chamber of Commerce)

July 27-31, 2011

Franklin, North Carolina:

Annual show; South East Gems & More; Whistle Stop Mall parking lot, 1281 Georgia Rd. (Hwy. 441N); Wed. 9-6, Thu. 9-6, Fri. 9-6, Sat. 9-6, Sun. 9-4; free admission; dealers, silver and goldsmithing, rough, slabs, fossils, minerals, metaphysical, findings, gemstones, custom jewelry and repairs; contact Mark or Patricia Smith, 751 Huttopond Rd., Aiken, SC 29805, (706) 490-4550; e-mail: segems@ymail.com

July 27-31, 2011

Franklin, North Carolina

G&LW Wholesalers Show

Date(s): Jul 28, 2011 - Jul 31, 2011 Where: Watauga Center on US 441 Contact 601-879-8832 for additional information. Tax License required.

July 15-17, 2011

Centerville, Tennessee:

38th annual show, "Middle Tennessee Gem & Mineral Show"; Dick Dixon; Hickman County Fairgrounds; Fri. 10-6, Sat. 10-6, Sun 10-5; contact Dick Dixon, (304) 825-6421

August 12-14, 2011

Dalton, Georgia:

20th annual show, "North Georgia Gem, Mineral & Jewelry Show"; Treasures Of The Earth Gem & Jewelry Shows; Northwest Georgia Trade & Convention Center, 2211 Dug Gap Battle Rd., I-75 Exit 333; Fri. 2-7, Sat. 10-6, Sun. 11-5; adults \$3 (3-day ticket), children under age 16 free; jewelry makers, goldsmiths and silversmiths, jewelry repair and design, wire wrap, wire sculpture, stone beads, pearls, stone setting, dealers, amber, opal, fossils, minerals, door prizes, grand prize; contact Van Wimmer Sr., 5273 Bradshaw Rd., Salem, VA 24153, (540) 384-6047; e-mail: vawimmer@verizon.net; Web site: www.toteshows.com

August 13-14, 2011

Asheville, North Carolina:

Show; Intergalactic Bead & Jewelry Shows; Haywood Park Hotel, One Battery Park Ave.; Sat. 10-5, Sun. 10-5; dealers, precious and semiprecious gemstone beads, sterling silver, findings, freshwater pearls, hand-blown glass beads, vintage beads, crystals, demonstrations, jewelry classes; contact Angela, (888) 729-6904; e-mail: angela.couch@beadshows.com; Web site: www.beadshows.com

Sept 3-6, 2011.

Hendersonville, NC

Henderson County Gem & Mineral Society. 29th Annual Gem, Mineral, Jewelry Show & Sale, Whitmire Activity Building, Lily Pond Road, Hendersonville.

Sept 9-11, 2011:

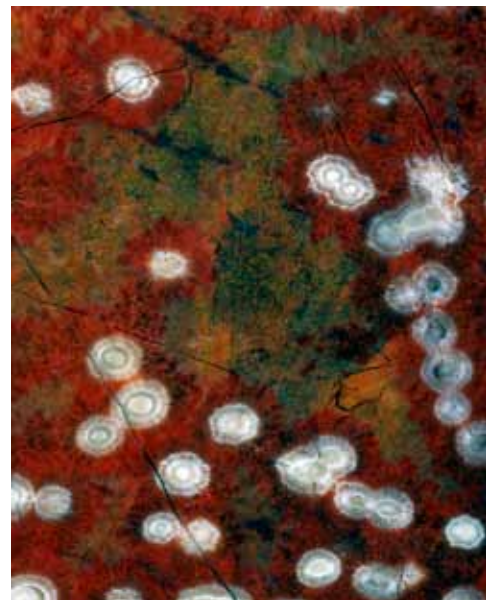
Winston-Salem, NC.

Forsyth Gem and Mineral Club. 40th Annual Gem and Mineral Show, Educational Building, Dixie Classic Fairgrounds, Winston-Salem#9 from 27th Street only. Hours: Fri & Sat 10-7, Sun 12-5. Contact W. A. Marion, Show Chair at 1163 Bear Creek Rd, Mocksville, NC 27028 or via e-mail at MarionA1@yadtel.net

Upcoming Field Trip

August 13, 2011:

Thermal City Gold Mine, Union Mills, North Carolina. An Official Field Trip of The Columbia Gem and Mineral Society, Inc (Columbia, SC) (Host). Collecting placer gold.



GUADALUPE POPPY JASPER CALIFORNIA