

GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB

AUGUST 2012

Prez Sez ...

It's that time of year again – Mathews Alive and Mint Hill Madness are looming just over the horizon. For those of you who are rather new to the club (and as a reminder to those who have been CG&MCers for a long time), these are the club's two major annual fundraisers.

At Mathews Alive (Saturday September 1st through Monday September 3rd) we will once again be selling and cutting geodes with the profits going to scholarships for geology and earth science majors at UNCC. The club has been participating in this event for over 25 years, going back to when it was known as the Stumptown Festival, and there are a number of reasons why we do it:

- In addition to the funds raised, It serves as a great opportunity to promote the club and gain new members. It represents a unique chance to interact with and get to know your fellow club members.
- You don't have to be a geode expert to help out – we need sellers, cutters, cashiers, wrappers and booth setapers/teardowners
- The look of surprise on the faces of the kids as you reveal the hidden treasures in their chosen geodes is priceless
- Volunteers get a free stylish green T shirt with a CG&MC logo on it

Mint Hill Madness (Friday September 28th and Saturday September 29th) is somewhat of "a horse of a different color". Our emphasis here is on sluicing and the education of kids and parents with regard to the gemstones they

discover during their sluicing efforts. Some geode cutting takes place but on a smaller scale. This event requires a lot of work in a relatively short period of time. Setup begins on Friday at noon with activities starting at 5PM, ending at 10PM. Saturday morning there is a race followed by a parade. The vendors/booths open at about noon with everything winding up by 10PM.

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While this is a shorter event compared to Mathews Alive, the scope of the work is broader (selling sluice bags, supervising sluicing, identifying gemstones, cutting geodes, promoting the club) and we need more volunteers per hour.

Mint Hill Madness generates funds for the management and operation of club activities and events. Even with the torrential rains that swamped us last year, we were able to generate \$1400 in sales which just about covered the expense of building the sluice, the purchase of sluicing media and gemstones, booth fee, T shirts, etc.. This will be our second year of participation and with your help and the cooperation of Mother Nature; we look forward to having lots of fun followed by a robust bank account.

It's very helpful to have a pre-schedule of volunteers' times. This avoids lots of members standing around during quiet times or too few members available during busy times. Our

vice president, Neil Hohmann, is coordinating volunteer scheduling and can be reached at gisusainc@aol.com to help you pick your events and times. He will also be set up at the next general meeting on Thursday evening, August 16 to schedule volunteers.

We would appreciate at least three to four hours of your time and I encourage as many as possible to participate in both events. If you do not already have one, those stylish green CG&MC T shirts will be available at the booth in Mathews and Mint Hill.

There is a dedicated crew of members who commit many hours and a good bit of sweat to the organization and implementation of Mathews Alive and Mint Hill Madness. Your help is very much needed and always appreciated.

See y'all there!

Muarry Simon, *President Charlotte Gem & Mineral Club*, Coordinator or Coordinators,

Remember September

Due to our other events in September (see page 4) there will be *NO regular meeting on the third Thursday in September*. Regular meetings will begin again in October. Followed in November by our yearly auction and December by our annual Christmas - Holiday party.

Charlotte Gem & Mineral Club Monthly Meeting

August 16, 2011 Thursday -- 7:00 pm --

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

Want to know all about faceting? by Jimmy Strickland

Our own Jimmy Strickland will be talking about the art of faceting. Turning colored lumps of gem materials in sparkling gemstones. Jimmy recently attended the Facetors Frolic in Franklin, NC and will also talk about his experiences and his class in Gem CAD, the computer program which provides the means to design your own stones.

Charlotte Gem & Mineral Club Junior Rockhounds

The junior rockhounds are taking the summer off for a well deserved vacation and will start again in the fall.

They now meet at the Matthews Community Center when in session. For further information please contact Mary Fisher at mefisher@att.net

Summer Event Schedule - 2012

Matthews Alive - - - Mint Hill Madness

Matthews Alive 2012 August 31 - September 3			
Friday	Saturday	Sunday	Monday
	9 am till 7:30 pm	12 pm till 7:30 pm	9 am till 5 pm
set-up after 6 pm			tear down

So why no September regular meeting? Because we will be committing more than 40 hours of time to our two September events, Matthews Alive and Mint Hill Madness. (Please see or call Neil Hohmann (gisusainc@aol.com) to volunteer some time over one or both events.)

Mint Hill Madness 2012 September 28 - September 29	
Friday	Saturday
	8 am till 11 pm
5 pm till 11 pm	tear down

The general Schedules are shown to the left. We will cut geodes in Matthews and both cut geodes and run the club sluice in Mint Hill. These are our two largest fund raisers for the year and provide for all the club scholarships.



Matthews Alive Geode Cutting - 2011



Mint Hill with Sluice - 2011

Enhydros

by Julian C. Gray from *Gem & Mineral Journal*, June 2004

Mineral dealers at rock shows will occasionally offer specimens labeled enhydros for sale. What they are selling are typically quartz crystals with liquid inclusions. Within the liquid is a tiny bubble, and if you tip the crystal back and forth the bubble will move. The dealers will often circle the bubble, and if you cannot find the bubble, the dealer will spend a lot of time searching with you. Most require that you use a magnifier.



So what are these things? First of all, they are fluid inclusions, not enhydros, and they are also much more common than you might imagine. I will define both, but here is how fluid inclusions form. Minerals grow by adding elements to the surfaces, edges, and corners.

Quartz crystals grow in many environments, but they commonly form by growth out of a hydrothermal solution—hot ground water containing dissolved silica. Growth rates and mechanisms are complex subjects, and some scientists spend years on this single area of research. It is enough for our purposes here to know that different parts of a single crystal or crystal face can grow at different rates.

When this happens, microscopic pits develop in the crystal faces. They become vessels for our bubble bearing liquid. Think of the hopper-shaped halite of copper crystals that you've seen or those deep cavities on the faces of some Brazilian quartz. As the crystal grows larger, the next layer or several layers of crystal

growth can cover these pits, trapping the liquid within the crystal in the process. Now the fun begins! When a liquid is heated it expands; when it cools, it contracts. Solids like quartz also expand and contract, but to a much smaller rate.

An everyday example of expanding and contracting liquids is the liquid in a glass thermometer.

The glass in the thermometer also

expands and contracts, just not nearly as much as the mercury of colored alcohol in the tube. When our quartz crystal is finished crystallizing, it cools down (and so does the liquid in the inclusion).

The cooling liquid contracts and may pull away from the sides of its quartz container forming a vapor bubble. Scientists call these trapped liquids and their bubbles fluid inclusions. They are quite common and very fascinating. The white color of milky quartz is due to thousands or perhaps millions of microscopic fluid inclusions. Gemologists see inclusions when they look at certain gemstones (emerald is a good example) with a microscope. The liquid is not always water.

A common fluid in ore forming processes is salty water. Hot water can dissolve a lot more salt than cold water and inclusions trap this hot salt water. When the salt water cools and contracts, it too forms a bubble. But another interesting thing happens; because the water has cooled down it can no longer hold as much salt as it did when it was hot. The salt begins to crystallize out as a halite crystal within the fluid,

which in turn is trapped in the quartz crystal.

Imagine peering into a microscope and seeing an inclusion with a tiny vapor bubble and microscopic halite crystals. Enhydros are scientific curiosities; fluid inclusions are a scientific research tool. It's sort of like the fluid equivalent of the difference between a rock and a mineral. It is incorrect to label a mineral with a fluid inclusion as enhydros. A label calling attention to the fact that a mineral bears fluid inclusions is correct and should even increase the value of a specimen because of the scientific value and unique circumstances under which these are formed.

Now get busy changing those labels!

References:

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Matsui, E., Salati, E., Marinin, O.J., 1974, CIHand 180/160 ratios in water contained in geodes from the basaltic province of Rio Grande del Sul, Brazil: *Geological Society of America Bulletin*, V. 85, p577-580. Roedder, E., 1962, "Ancient fluids in crystals"

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article from:
Baltimore Gem Cutter
News - May 2010

OPLC Faceters Companion CD

by Bob Keller, CD Editor and Compiler

Interesting Potentials...

Greetings fellow faceters and welcome to the OPLC Faceters Companion CD! The seed of the idea for a CD for faceters was planted while attending the Faceters Symposium 2000, hosted by the Faceter's Guild of Southern California and held in conjunction with the California Federation of Mineralogical Societies "Gold and Gem Show 2000" in Riverside, California.

Our registration packets for the Faceters Symposium 2000 included a photocopied set of gemstone designs, which I thought a nice touch. Charles Covill (pictured left) was one of the symposium speakers and during his presentation he mentioned he had some floppies with copies of his "Odds" series of designs in GemCad format freely available and was promptly run out of them by interested participants.

When considering possibilities for a memento for participants of Old Pueblo Lapidary Club's 2002 Tucson Show Hobnob for Faceters, a collection of gemstone designs seemed most appropriate. The evolution in media from dead tree format to floppy disk to CD pro-

vides exponentially increasing advantages in terms of the amount and richness of the content that can be incorporated and delivered. CD media has become very inexpensive and virtually every personal computer is equipped with a CD drive nowadays, so the idea of a CD had a lot of appeal.

My initial concept for this CD project simply involved using CD media to distribute a collection of gemstone designs in GemCad (.gem) format, eyeing the several orders of magnitude larger storage capacity and low cost of CD-R media compared to a floppy disks. However, I wasn't at work on this project very long before I started considering a format for indexing the design files and the potential of CDs for delivering rich content started to register.

Virtually every personal computer also has a web browser installed nowadays, so using HTML format for the Faceters Companion provides a familiar and well developed publishing vehicle capable of delivering rich content. Delivering HTML via a CD instead of a network or telephone modem connection side steps the World Wide Wait and provides the browser with

the exhilarating experience of ultra-high bandwidth performance. The storage capacity on a garden variety CD exceeds half a gigabyte, which would require a rather large and expensive web site to deliver online.

An Invitation to GemCad...

Robert Strickland's GemCad software is ubiquitously employed by gemstone designers and has fairly recently been released to the faceting community as freeware. The strong interest in Charles Covill's floppy of .gems at the Faceters Symposium 2000 indicated to me that a fair number of the participants were also GemCad users. Robert Strickland has also provided a GemCad Printer Utility for Windows to compliment his original suite of DOS applications. The GemCad Printer Utility for Windows can be used independently of the GemCad DOS suite to open GemCad's native .gem format files, view the designs and print out diagrams and facet particulars using Windows and your Windows printer drivers.

The GemCad Printer Utility for Windows makes GemCad .gem format files very attractive as a lingua franca among faceters for publishing and exchanging design files in the digital world. The .gem format is

very compact and provides all the essential information required to generate the design diagrams and facet particulars needed to cut the design. Using .gems, designs can be readily exchanged as email attachments and a CD is capable of storing many thousands of them.

Installers for the GemCad DOS suite of software, the GemCad Print Utility for Windows and user documentation has been included on this CD to encourage those of you who are not yet GemCad users and facilitate you in checking it out. GemCad is very useful for routine tasks such as tangent ratio and reality checking designs for typos or outright errors prior to cutting them in addition to being a powerful design tool. And the price is certainly right...

There is some learning curve to GemCad but after getting in a little stick time you may just begin to find yourself interested in gemstone design. With so many designs available to faceters nowadays and more being published all the time, some will not hear the call or find it worth their while to learn to design gemstones. However, design is an enjoyable facet of the hobby for increasing numbers of faceters and there are certain satisfactions that come from

cutting your own designs which you may find well worth suffering through the curve. The evolution of personal computers in general and GemCad in particular has provided revolutionary tools that bring experimenting and playing with gemstone design within the realm of any hobbyist so inclined.

From Here to Where...?

It seems to me a CD is a nearly ideal vehicle to present tutorials and instruction for beginning faceters. Towards the end of employing the Faceters Companion as a faceting instructor's class hand out, I've endeavored to incorporate a number of designs which are suitable projects for novices as well as a number of articles that describe and address fundamental faceting techniques and knowledge. Of course I have also incorporated designs and content which are geared towards more advanced faceters, including some material pertaining to competitive faceting.

I think a good way to encourage designers and authors to support and contribute to a project like the Faceters Companion is to make it available for personal use as freeware. In addition to seeding the attendees of the OPLC get together, master copies of the CD will be provided to

faceting guilds and clubs to circulate among their members for making personal copies as well as to AFMS Regionals for their libraries. Employing HTML format also facilitates making the CD content directly available on the WWW.

A number of faceters who will not be attending the 2002 Tucson Show and OPLC get together have expressed an interest in obtaining copies of the Faceters Companion. Unfortunately, even though the media has become inexpensive, there are other costs involved in making and mailing physical copies of CDs which become significant and draining on a concentrated source providing copies for gratis in quantity.

An online version of the Faceters Companion is provided to facilitate economic publication and distribution of the designs and articles incorporated in this V2.002 edition CD. Copy permission is also provided for members of faceting guilds and gem and mineral clubs and societies to make up to 25 copies of this CD and distribute them to their fellow members and other faceters of their acquaintance provided they do so without charge. Copy permission may also be granted on a case-by-case basis to appropriate non-profit guilds,

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clubs and societies to reproduce and distribute more than 25 copies of the OPLC Faceters Companion V2.002 CD at a nominal charge to defray their costs.

I hope you enjoy your OPLC Faceters Companion V2.002. If you find this CD project for faceters interesting and worthwhile, please consider participating as a content contributor for future editions.

The above article was taken from the rockhounds.com WEB site. The CD and contents can be viewed on the site.

http://www.rockhounds.com/oplc/cd_online/index.html#about%20companion

Instructions for downloading and creating the CD can be found here:

<http://www.rockhounds.com/oplc/>

Online resources relating to faceting and gemstone information *by ron gibbs*

To the right and below is a list of active WEB sites in support of faceting, and run by guilds. These guilds tend to be regional as faceting can be an expensive hobby, and is most definitely time consuming.

For more information on the hobby please visit some of the WEB sites listed and read about their activities.

Below are some WEB sites that provide support for gemstone information, news, and cutting. These are mainly sites with active forums where you can interact or question others about gemstones.

Columbia-Willamette Faceter's Guild
<http://www.facetersguild.com/>

Faceters Guild of Southern California
<http://www.FGOSC.com>

Gem Cutters Guild of Baltimore, Inc.
<http://www.gemcuttersguild.com/>

Midwest Faceters Guild
<http://www.midwestfacetersguild.org>

New Mexico Faceters Guild
<http://www.attawaygems.com/NMFG/>

Old Pueblo Lapidary Club
<http://www.lapidaryclub.org/>

The Tomoka Faceter's Guild
<http://www.tomokagms.org/page9.html>

United States Faceters Guild
<http://www.usfacetersguild.org/>

Yahoo US Faceters Guild list

<http://groups.yahoo.com/group/usfgfaceterslist/>

World Gem Society

A grass roots level organization of gemstone consumers, designers, dealers, cutters, faceters, lapidaries, miners, appraisers and anyone else who shares our love of earth's wonderful gifts....gemstones.
<http://www.worldgemsociety.org/>

IGS (International School of Gemology)

A forum with lots of information on gemstone and gemstone materials. Often current news about the newest gemstone treatments and synthetics. Also gemology classes.
<http://www.schoolofgemology.com/>

GemologyOnline

Good online forum to learn about gemstones and ask all questions related to gems, gemstone cutting, and photography. Members from all over the world. (Also a free online class to learn gem identification.)
<http://www.gemologyonline.com/>

GIA (Gemological Institute of America)

Gem related educational classes, and lab reports with regard to most all aspects of the gemstone industry. Also publishes a monthly journal of gemology.
<http://www.gia.edu/>