Chippers' Chatter

Newsletter of the Chesapeake Gem & Mineral Society
Baltimore, Maryland <chesapeake.rockclub.us>
Volume 53 Number 11
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Who We Are:

The Chesapeake Gem & Mineral Society is a Member of the Eastern Federation of Mineralogical & Lapidary Societies and is Affiliated with the American Federation of Mineralogical Societies.

The Chesapeake Gem & Mineral Society was established in order to allow its members to gain knowledge and skills in various phases of the Earth Science field. Through field trips, exhibitions, and cooperation with other societies, we endeavor to further not only our own knowledge, but also that of the general public.

Meetings are held on the 2nd Friday of each month except August at the Women's Club of Catonsville, St. Timothy's Lane & Frederick Rd in Catonsville, MD. Meetings begin at 7:30 P.m. and visitors are always welcome.

Deadline for submitting articles or comments in this Newsletter is the 15th of each month.

President's Message

Date: 13 October 2009

Soon it will be Thanksgiving and we can all be thankful for our gem and mineral club, our many club friends, and the hobbies that we share.

This month we will have the election of the 2010 club officers and board members. Thanks to all who will be returning to serve the club along with any new officers.

If you have not done so already, please see Dawn and sign up to bring an item to our holiday party. Also, see Liz or Wendy to sign up to bring refreshments to one of the next year's meetings.

To all a very happy Thanksgiving,

Gil

Notice: The list of candidates for November's election has not been received as of 31 October 2009. <<Editor>>

Upcoming Shows & Special Events:

2009

November 21 & 22:

-- 18th Annual Gem, Mineral & Fossil Show, Student Union II Bldg, George Mason Univ Campus, Braddock Rd & Route 123, Fairfax, VA; Northern Virginia Mineral Club, Inc. www.novamineralclub.org

-- GEM Miner's Holiday, Lebanon Expo Center, Route 72, Exit 266 (old exit 20), right on Rocherty Rd. www.gem-show.com

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Goodies 'N Such

by Liz & Wendy Stanne

Many thanks to our wonderful members who brought in a feast of hot and cold delights for all of us to enjoy. The Chili was a real treat, and it vanished in no time!

We look forward to the refreshments for November - being provided by :

Sally Cappadora
Al Pribula & Linda Watts
Catherine Purdum
&
The Weinbergers

Personals

Barb Kays reported that Becky is on the recovery road, and hopefully will be joining us this month.

Mike Hakulin Jr. underwent some serious surgery in Oct. He will have some issues to deal with for a while, but fortunately is recuperating. <<He is home now and doing well. He appreciates the balloons and cards that the Club sent to him–Thanks>>

Helen and Andy Herman had another fabulous trip to Greece in Sept.

Linda Watts and Al Pribula also had an exciting summer with a trip to Australia. [Is there a possible slide program in our future?]

Lynne

Howard County Show:
Thank you to everyone who spent an hour at the Chesapeake table.
A special thanks to a couple of you who did double duty.
We did sign up a couple of new members too.
I would like to also thank Bernie for helping me make our new Chesapeake poster board. It took the better part of two days, but I think it is a real eye catcher. [now I just have to figure out a safe place to store it.]

Lynne

In Memoriam

Courtesy of: *Gem Cutters' News, November 2009 and the EFMLS Newsletter, November 2009.*

June Culp Zeitner

The "First Lady" of rockhounding has died at the age of 93 after a lengthy illness. Probably best known through her monthly articles in Lapidary Journal and Rock and Gem Magazines, June Culp Zeitner was also the author of ten books, the recipient of both the AFMS Recognition Award (2003) and Carnegie Mineralogical Award (2005), a frequent speaker at club shows and federation conventions and one of the best boosters for our hobby.

Born in Michigan, one of five girls, her father insisted that each receive a college education – something rare at that time. In 1937 she moved to Mission, SD where she began her career as an English teacher. and later became superintendent of the local high school. It was in Mission that she met Albert Zeitner whom she married. Albert's family owned a hardware store and natural history museum in Mission and June soon was "hooked". Early in their marriage, the couple set off on a one-year cross-country trip to visit several collecting sites. That trip turned into a 30-year adventure during which they visited almost every locality. June turned her adventures into books (numerous "Gem Trails" volumes, *Gem and Mineral Materials for Cutters, Collectors and Jewelers*, etc.).

June also wrote a monthly column for *Lapidary Journal* in which she answered questions about the hobby from readers. Later she wrote articles about her adventures in *Rock & Gem Magazine*. Arthritis and failing health forced her to give up the monthly column about two years ago.

Indefatigable, she was instrumental in founding the State Stone Program, encouraging each state to adopt an official gem, mineral and fossil. She was responsible for heading up the AFMS 25th Anniversary Celebration at the Smithsonian and obtaining at least one polished cabochon from every state to display on a giant birthday cake. These were on display in the gem hall until the renovation in 1997. She was also honored as "The First Lady of Gems" in 1976 by the International Gem Show and crowned at the White House.

June's idea of honoring notables in the hobby resulted in the establishment of the "Rockhound Hall of Fame", now housed in Murdo, SD. Nominations from the rockhound community each year result in the selection of an individual to honor in the field of lapidary, minerals, fossils metalcraft, education and tribute (deceased). June herself was inducted in 1992 for her work in education.

Much of June's personal collection of rocks, gems and minerals is on display at the South Dakota School of Mines in Rapid City, SD, at the Black Hills Museum of Natural History and Black Hills

Institute in Hill City, SD and at the Rockhound Hall of Fame in Murdo, SD.

On a personal note, June was a friend. I first met her at an AFMS Convention....I was editing this "rag" at the time and after seeing my name on my badge, came over to introduce herself and comment about the newsletter, Over the years we saw one another at succeeding conventions and in Tucson. In 2003 when the AFMS decided to create the Recognition Award, June was the overwhelming choice to receive the first one. June was not present when the award was presented, so Steve and I decided to drive home via Rapid City and present it to her personally. It was a very hot summer day and we had our dog with us. Knocking on her door, we had no idea if Barkley would be welcomed or not, but he was. When it was time to leave for lunch, June insisted that he remain in her home and was delighted to see him looking out the front window as he heard our car return. After that her phone calls always began with "and how's my little dog?' She'll be missed!

Contributions in June's memory can be made to the AFMS Scholarship Foundation, % of Bob Livingston, 59 Ely Dr; Fayetteville, NY 13066-1001. Remember to mark your check "unrestricted" if you wish your contribution to go towards the challenge.

Carolyn Weinberger

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Minutes

By Earle Pfetzing

The meeting of the Chesapeake Gem & Mineral Society was called to order at 7:30 pm on 9 October 2009 at the Catonsville Woman's Club by Gil Charleton, President. The meeting was very short to allow time for the auction. A good time was had by all.

Feature Articles

Minerals of the Month – Pegmatites

by Steve Weinberger

This month we are looking at minerals of the month, notably those formed within pegmatites. Pegmatites are usually coarsely grained granitic magmas that contain a number of minerals. Among these are feldspar, quartz, mica, tourmaline, beryl, and topaz among other rare element minerals.

Cavities in the pegmatites can be lined with excellent examples of these minerals. Ore veins can also be found and these can include metallic elements such as copper, gold, silver, zinc, lead, etc.

Let's look at three of the above-mentioned minerals. Beryl and tourmaline both have hexagonal crystal systems, while topaz is orthorhombic. All three of them are gemstones and can be cut and polished relatively easily, although topaz can cause problems because of its cleavage planes.

Colors of the three can vary greatly. Beryl can be green (emerald), blue (aquamarine), pink (morganite), yellow (golden beryl), or colorless (goshenite.) Tourmaline can be green, black (schorl), brown (dravite), red (rubellite), colorless (achroite), blue (indicolite.), watermelon, and rarely lavender. Topaz can be colorless, blue, yellow, brown-orange, pink or violet pin

Because of the optical properties such as refraction, clarity and colors, all three are used frequently as gemstones. Their hardnesses are 7 1/2 —8 on the Mohs scale which makes them ideal for use in jewelry because they are hard enough to resist wear but not too hard to cut. Although their costs are not in the range of diamond and fine ruby, all three are well above gems such as quartz (amethyst and citrine.) Fine emeralds can demand very high prices, though.

Bring in some of your best examples of these pegmatite minerals to supplement this month's talk.

<<Ed. Since Tourmaline is one of my favorite mineral/gemstones, I just had to add the following from the Wikipedia at http://en.wikipedia.org/wiki/Tourmaline>>

Tourmaline species and varieties

Dravite species: from the Drave district of Carinthia

- Dark yellow to brownish black—dravite

Schorl species:

- Bluish or brownish black to Black—schorl

Elbaite species: named after the island of Elba, Italy

- Rose or pink—rubellite variety (from ruby)
- Dark black—schorl (from indigo)
- Light blue to bluish green—Brazilian indicolite variety
- Green—verdelite or Brazilian emerald variety
- Colorless—achroite variety (from the Greek for "colorless")

Mineral specimens:

(1) Morganite on quartz, Blue Lady Mine, San Diego Co., CA
(2) Emerald, Hiddenite, Alexander Co., NC
(3) Tourmaline, Himalaya Mine, San Diego Co., CA

November Birthstone - Topaz

Compiled by M.S. Hakulin

Topaz the birthstone for November is an uncommonly beautiful common gemstone that has been used for centuries in jewelry. Its golden brown to yellow color is classic but is confused with the less valuable citrine, which is sometimes wrongly sold as a "named topaz"; or as an alternate birthstone for November by some commercial jewelers <<See Zales.com>> . Reportedly, Blue topaz that is sometimes confused with aquamarine is "rarely natural and is produced by irradiating and then heating clear crystals". <<However, a quantity of natural light blue topaz is now coming from Brazil and several locations in Africa, e.g., Nigeria.>> Topaz may be colorless, yellow, orange, red, blue and green.

Alternate Birthstones for the calendar month of November are citrine, pearl, and chrysoprase. However, should you closely follow Zodiacal signs, topaz is the birthstone for Sagittarius (born on November 21st through December 21st) and **beryl** is the birthstone for Scorpio (born on October 23rd to November 20th). Actually, there are eleven different stones listed as birthstones for the calendar month of November, or as Sun/Star, Planetary, or Talismanic stones for the Zodiac sign of Scorpio or Sagittarius. The Zodiac signs of Scorpio and Sagittarius include seven additional stones: beryl, aquamarine, garnet, ruby, amethyst, sapphire, and turquoise.

Topaz is the hardest silicate mineral and one of the hardest minerals in nature. The structure is controlled by a chain-like structure of connected irregular octahedrons. These octahedrons have aluminum in the middle surrounded by four oxygens. Above and below the aluminum are the hydroxide or fluoride ions. The chains of octahedrons are held together by individual silicate tetrahedrons but it is the octahedron chains that give topaz its crystalline shape. Topaz crystals can reach incredible size of several hundred pounds. It makes a very attractive mineral specimen due to its high luster, nice colors and well formed and multifaceted crystals.

The following quote regarding treating is true for all gem material and not only topaz:

> "When golden topaz has red or pink overtones it is known as imperial topaz and can be quite costly. The most valuable color for topaz is untreated pink and red. Light brown topaz is quite often heated to show a pink color. Therefore, exercise caution when paying top dollar for pink topaz – query the seller as to the gemstone being natural or

treated – ask to see the lab document. No document – assume the stone has been treated."

"Ok, what is the big deal about treating gemstones? Actually, nothing, gemstones have been heat treated for centuries to improve their color or clarity. The most relevant aspect of this is to make sure that you are not deceived and pay more for a treated gemstone than it is worth."

http://www.galleries.com/minerals/silicate/topaz/birthnov.htm;

http://www.zales.com/jewelry101/index.jsp?page=birthstones_Citrine**;**
http://jewelry.suite101.com/article.cfm/november_s_birthstone___topaz**;**

http://www.bernardine.com/birthstone/november.htm

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Roughing Out for Size and Weight

By M.S. Hakulin, copyright November 2009

The last time I supervised an open shop at the Patuxent Lapidary Guild I was asked questions about faceting. I mentioned I used a process I called "roughing out" for lack of a better term. I said that this refers to the process of removing material from a gemstone in a way that will shape it into a facetable shape while removing any defects. Basically, this consists of:

- Studying the rough to determine what defects need to be removed.
- Deciding what shape will be best after these defects are removed.

The process is:

- Choose a piece of rough to work with, and examine it under a 10x loupe to identify any potential defects, both internal and external.
- Examine the rough again using a larger, higher magnification lens. This allows a much better examination and will give you a different perspective. Identify the previous defects, then, examine the rough for any additional gross defects that the loupe could not see due to its smaller field of view.
- Mark any defects with a "Sharpie" ultra fine point marker. Let dry. This will give you a permanent indicator and will help when you start grinding to remove faults.

After examining the stone, you will have a good idea of what defects you have and where they are.

- The next step is to determine what shape the rough will take on once you remove the defects. This is the tricky part, and it might help you to draw the shape of the stone and mark the defects on the paper in ink and then draw some simple shapes in pencil until you come up with a design you like.
- Begin grinding out the first defect, and keep in mind you want to keep as much material as possible and what shape you want to wind up with.
- Do you grind to the right or to the left? Up or down? You need to keep this in mind at all times to keep the integrity of the desired shape.

Also, remember that concave defects need to be flattened out – a faceting lap can only grind flat surfaces, so they need to be "evened" out immediately.

Once you remove that first defect and have ground in a direction that will maintain the desired finished shape, begin to grind out the next defect alongside it. You should follow around the stone grinding out defects one at a time going from one to the other all in a row. You will use this same procedure when you start faceting a given set of facets. This way you will have a much easier time trying to maintain your shape than you would if you ground away a defect on the side of the rough and then went to the top for example. That would be confusing and you could lose track as to what the finished shape should be. Constantly watch that your shape is maintained and you don't lose any unnecessary weigh. Once the defects are removed, you will have some grinding work to do to finish making the "preform" of your intended shape.

At this point, most commercial facetors and instructors will move to ensure that you have the

proper gem ratios in hand—going to the Gemcad drawings or other tables. They all say that you need to have the correct height, width and length for your preform to keep your weight loss low.

I don't dispute their word; but, I have my own method to my madness. Here are a few questions to consider:

- Is the material saturated—i.e., is it transparent or opaque?
- Is the material thin or thick? Will you have to cut small stones for a standard cut?
- Is the color band in layers? Or, is it homogenous throughout?

If the material is transparent, if you want to get reflected light you will have to have at least one set of facets in the pavilion at or near the critical angle. The rest can be at your pleasure. You can even use a barrel cut like the Asians do to salvage as much material as possible. If the material is opaque, then just ensure that the girdle cuts are to size and that the crown cuts are polished well.

If the material is thin, then either slice the material to make standard cuts or take a page from the Asians, again, and cut the crowns and then the pavilion as best you can. For thick stones that have color in the wrong direction, I usually slice them in two pieces parallel to the color and cut earring stones.

A lot of sapphires, especially in inexpensive rough, have color banding. The secret here is to cut the stone parallel to the color band. Another tip is to put the color at the bottom of the pavilion if transparent. If the color is homogenous, then just cut for maximum yield.

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2009 Officers:

President: Gil Charlton, gilchar@msn.com, 410.296.8129
Vice President: John Buchleitner, jbuchl@verizon.net, 410.647.3917
Recording Sec'y: Earle Pfetzing, 410.465.0408
Corresponding Sec'y: Phyllis Dyer, Stevedyer2 @ verizon.net, 410.349.1630
Treasurer: Marilyn Cornish, mcornish23 @ yahoo.com, 410.719.2434

Directors:	**2009**	**2009-10**
	Steve Dyer	Carolyn Weinberger
	Gary White	Bernie Emery

Committee Chairs

Auctions - Lynne Luger & Bernie Emery
Directory - Phyllis & Steve Dyer
Field Trips - Dave Fordyce
Greeters - Al Pribula, & Earl Pfetzing
HOLIDAY Party - Dawn , Rachel, Karl & Karin Johnsson
Hospitality - Liz & Wendy Stanne
Legislation - Dave Fordyce
Library - Tony Wilner
Mineral of the Month - Steve Weinberger
Personals/Announcements/ - Patricia Smith & Lynn Luger
Robinson Award - Patricia Smith, Richard Hoff, & Elizabeth Stanne
Sunshine Pgms - Richard Hoff, Keith Kaneda & Tony Wilner
Safety - Johnny Johnsson
Show - Bernie Emery & Lynne Luger
Showcase - Steve Dyer

Editor:
Michael S. Hakulin Sr <haksdad@aol.com>
410.987.1239 Fax 410.987.0736
8240 Ahearn Rd., Millersville, MD 21108

Its beginning to be that time again, Emergency Telephone Chain:

Lynne Luger	410-832-5906
Liz Stanne	410-486-3774
Mary Chandler	301-663-8348
Wendy Stanne	410-486-4018
Phylllis Dyer	410-349-1630
Dawn Johnsson	410-833-5508

The 2009 Summer Picnic

Chippers' Chatter
Mike Hakulin, Editor
8240 Ahearn Rd
Millersville, MD 21108

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2009 Calendar of Events

November	13 – Election of Officers
December	11 - Holiday Party

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2010 Calendar of Events

January	8 – Regular Meeting
February	12 – Regular Meeting
March	12 – **Auction**
April	9 – Regular Meeting
May	14 – Regular Meeting
June	11 -- **Auction**
July	9 – **Club Picnic**
August	***Summer vacation -- No meeting***
September	10 – Regular Meeting
October	8 – **Auction**
November	12 – Election of Officers
December	10 -- **HOLIDAY PARTY**

Factoid: The November-December 2009 issue of Colored Stone is being devoted solely to feldspars. They have picked one of the lowest of the sodium-content plagioclase feldspars found just south and north of the Mexico border to highlight. It is called bytownite, and it is one in a series of six of these stones classified according to their decreasing amounts of sodium and increasing amounts of calcium, The six, in order of descending sodium content, are as follows: albite (90 to 100% sodium), oligoclase (70 to 90% sodium), andesine (50 to 70% sodium), labradorite (30 to 50% sodium), bytownite (10 to 30% sodium), and anorthite (0 to 10% sodium).