

GEM & MINERAL JOURNAL

August 2018

Gem & Mineral Society of Lynchburg, VA, Inc.

Volume 27-Issue No. 8

PRESIDENT'S MESSAGE:

Hi All,

Another month has past and if it is not hot and sticky it is raining. I hope you are getting some rock time. We had a great program last month and I learned a lot about how minerals get their names. At the time of my writing I am not sure what the program is for August I will just have to wait and see. My family set up vacation for the week of 8/11 through 8/18 so I will miss this club meeting. By the time you are reading this we would have already had our executive meeting and would have iron out things there.

I am looking for new ideas for the meetings so if you have some ideas I would love to hear them. I believe that if we can mix things up some the meetings would not always look the same and in that way be more fun and/or enjoyable. Making little changes that just change the flow of things helps keep the meetings new and flexible and not the same and boring. So help me out and send me or call me and let's throw around some ideas.

Now on a more serious note, I really want to get some people in line for mentoring. Next year is going to be a full year for me at work and I do not know how much I am going to be around. For our club to continue into the future we really need to develop a plan for our officers. Hear is a list of what I believe that we need in the way of officers: President, First Vice President, Second Vice President, Treasurer, Secretary, News Letter Editor, Members at Large (X2) and Membership Chairman.

It is my personal opinion that all of these are vital to a strong and healthy club and there should be no double coverage, one person one position.

That is all for this month so until next time.

Keep looking down, Steve

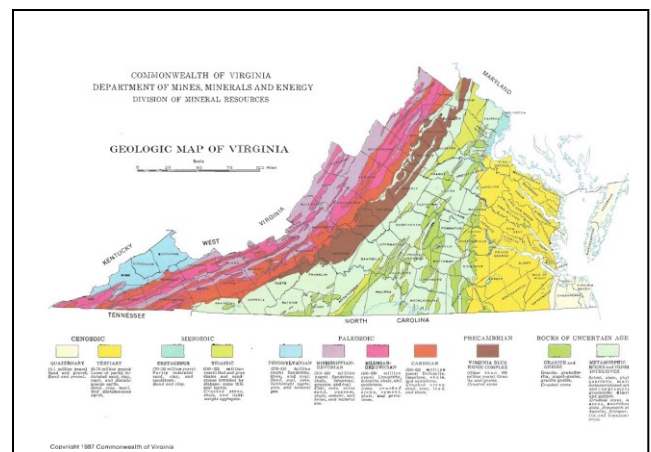
AUGUST'S PROGRAM:

Guest Speaker: Steve Lenhart, PhD

Title: The Five Geological Regions of Virginia

Abstract: It explains the four consecutive sets of mountains to form on the east coast of North America in the past one billion years of Earth history. It therefore explains how the different rocks and minerals we collect in Virginia originated and it explains their distribution throughout the state.

Virginia is divided into five geological regions. These regions are based on age and environment of formation, elevation and rock composition along with other determining factors. Each region is different. The Piedmont is geologically the most diverse. This program will target learning that meets Virginia SOLs for teachers and parents with children in school.



AUGUST 15 MEETING: Speaker: Dr. Steve Lenhart, Associate Professor of Geology at Radford University [Retired]

August Program: The Five Geological Regions of Virginia

NEXT MEETING: September 19, 2018, 7:00 PM

September Speaker: William Lassiter, PhD Economic Geologist, DMME

September Program: Uranium Occurrence in Virginia's Piedmont

NEXT DEALER DAY MEETING: October 17, 2018

November Meeting is Club Auction

December Meeting is elections and party.

JULY MEETING MINUTE

Regular Monthly Meeting

Meeting: July 18, 2018 @ 7:00 PM

Attendance: 35 members, 2 Guests

Meeting called to order by Steve Gordon, President

Approval of the June Meeting Minutes

On Time Drawing Winners: Mary Nancy Linkenhoker, Bob McIntire, Dave Callahan, Natalie Darling, Jesse Dudley, Thom Noble, Abby Allbeck, Johnnie Knight's grandson (Parker), Clint Ferguson, Hans Schubert, Lee Wood, Steve Lenhart, David Ball, Johnnie Knight, John Haskins, Eric Routon, Siglinda Allbeck.

50/50 Drawing – Johnnie Knight won \$7.00.

Treasurer's Report: Cindy Mitchell current balance of \$10,599.17. Expenses were paid for Apple Harvest Festival Fee and deposit made of \$213.

First V.P. – David Ball Committee Reports:

Finance Report: Will work on audit and report at next club meeting.

Field Trip Committee: Only fieldtrip confirmed for now is Willis Mtn in September. He is requesting at least 4 club members to help with this event.

Hospitality: Jesse and Don Dudley hosted tonight's meeting Linda & Thom Noble will host the August meeting.

Workshops: Workshops are held the second Saturday of each month at Dave Callahan's.

Club members are welcome to come out and learn to cut cabochon, facet, make gem trees, or possible jewelry making. Dave Callahan is making his facility available Saturday- Tuesday.

Editor Update – Please make note of the new e-mail address: gmslveditor@gmail.com. Articles are welcome and needed.

President – Steve Gordon
Old Business: Steve is working on a ballot to see what interest or suggestions club members have. Possible different date other than Saturday workshop.

New Business: From the Executive Board meeting David Ball will complete the Audit and work on getting fieldtrips for club members to non-fee sites. Anyone interested in becoming an officer please step up and help. A mentor will be provided to help ready person for the position of President, Treasury, Secretary, and Membership Chair.

Order of materials for sluice bags was reviewed and order confirmed by board members present. Steve will continue to work toward ID tags for club owned equipment. He will also work with David on getting paper copies of newsletter available.

Program: Tony Nikischer from Excalibur Mineral Corporation in Charlottesville gave a very interesting presentation on mineral identification.

2018 OFFICERS

PRESIDENT:
Steve Gordon
434-929-1524
stevegordon@comcast.net

First Vice President:
David W. Ball
434-983-9595
777dwb@gmail.com

Secretary:
Linda Noble
434-332-4869
Linda-noble@hughes.net

Treasurer:
Cindy Mitchell
434-283-3884
mitchell99@embarqmail.com

Members At Large:
Natalie Darling
Eric Routon

Editor:
David W. Ball
434-983-9595
gmslveditor@gmail.com

COMMITTEE CHAIRPERSONS:

Field Trips: David Ball
Workshops: Dave Callahan
Membership: Thom Noble
Hospitality: Monthly Volunteers
Website: Casper Voogt
Finance: David Ball
Librarian: David Woolley
Silent Auction: Warren Darling
News Articles: David Ball
FRA Adult Liaison: TBD

Welcome New Members: Kim Blair and Lee Wood.
Minutes submitted by Linda Noble, Secretary

*The Official Monthly
Publication of the Gem & Mineral
Society of Lynchburg, VA, Inc.
www.lynchburgrockclub.org*

EDITOR'S NOTES:

David Ball, Editor

Please take note that the editor's e-mail address has changed to: gmslveditor@gmail.com

All problems aside, you will be getting all of your newsletters. Anyone without an email address will have their newsletter mailed to them. All others with email addresses will receive their newsletter via email. Emailed newsletters will come in color with any links included. Each month's newsletter will be available online prior to each month's meeting.

You will notice flyers being sent out prior the newsletter and meetings. This is to promote the monthly meeting and events. Please print and post them locally near you and share with friends, neighbors, schools and community notice boards. Let's get the word out to others.

It is not the job of editor to write all the copy that fills the pages. While I may do some writing, writers are needed to write articles and contribute to this your publication.

For your convenience, I have an e-mail address exclusively for the newsletter, notices and general communication with you the members. I am not the only point of contact, just one of several with the Board.

Deadline for all newsletter submission will be due by fifth of each month so that it can be mailed prior to that month's meeting.

Contact me at: gmslveditor@gmail.com

**Deadline for next newsletter submissions is:
September 5, 2018 12:59 pm.**

Finance Committee Report:

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David Ball, Chairman

I received the financial records for auditing at the July Executive Board meeting. It was not mentioned at the August Executive Board meeting. An audit will be done. Once that has been completed, an audit report will be brought to the Executive Board for review and approval, then reported to the membership.

After the audit is done, I will be able to draft a budget for approval. Working with the Treasurer, we will have financial statements to provide a level of transparency as required according to Generally Accepted Accounting Practices (GAAP).

Workshops Committee Report:

David Callahan, Chairman

There will be a workshop every second Saturday each month. Help is needed to make items to sell at the Apple Festival in October. The main point of the workshop is for you to learn how to work with the material you collect to make things you can keep or give to others. Thom Noble is available by appointment to teach you cabbing and other skill sets. Dave Woolley will teach you faceting. The workshop is located at Dave Callahan's, 1337 Thornbird Place, Huddleston, VA. Workshop hours are 9:00 am to 3:00 pm.

UPCOMING FIELD TRIPS:

Locally and Federation

Barger Quarry, Lexington, VA Saturday, August 25, 2018, 8:00 am to 1:00 pm

The quarry is closed for business on Saturdays. We will meet there. You will have to park outside and hike in to the pit area. Safety training will be sent by email and taken online. For those without email, I may link it to our website so you can use the library computers to complete the online training. Waivers will be signed prior to entering the quarry. All safety gear will be required and checked prior to entering the quarry. You will have to carry your tools and specimens. Carts, wagons and wheelbarrows will be allowed. No ladders or climbing on high walls will be permitted. **MOST IMPORTANT:** It is still summer and can get very hot in the pit. Bring plenty of water, take frequent breaks and let someone know if you are having difficulty. We do not want a repeat of the incident at our previous visit to this quarry.

NOTE: There is a Food Lion next to the quarry and several fast food places just up the road. Take advantage of them if you need to cool off and get out of the heat.



Kyanite Mine, Willis Mountain, Buckingham, VA Saturday, September 29, 2018

Details of fieldtrip are available at the meeting and please sign-up. [See page 11]

VOLUNTEERS: The day of the fieldtrip, we will need volunteers to help with sign-in and safety monitoring. We will need 4 volunteers to help sign-in attendees. This entails checking their names against our list of preregistered club members, registering unlisted attendees and having everyone sign the waivers at sign-in. Someone will have to inspect attendees for correct safety gear. Vehicles will need to be parked in columns to expedite orderly caravan into the active mine site.

We will need 4 members to act as safety officers while on the mountain in the active mine area. You will need to address any safety concerns or violations. If an attendee refuses to comply, you will notify me or Kyanite staff. They will be given a final request to stop their unsafe activity. Should they fail to comply, they will be escorted off site and barred from future trips to Willis Mountain.

In total, we need 8 volunteers or fewer if you want to assist with sign-in and safety officer duties. For sign-in volunteers, we ask that

Heat Safety Reminders
Remember These Important Tips!

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Our heat index values routinely reach the **DANGER** category during July & August.

National Weather Service Shreveport, LA www.weather.gov/shv

DIRECTIONS: From Lynchburg, take Route 501 north to Buena Vista. Go left heading west on Route 60 pass over Interstate 81 toward Lexington. Just past the Goodwill, you will make a left on Bordens School Road and park at the entrance. Do not block the auto repair driveway. From Roanoke, take Interstate 81 North and exit at Route 60 West. From Charlottesville, take Interstate 64 West to Interstate 81 South, exit Route 60 West.

you arrive by 7:00 am as there will be early bird arrivals.

This will be the last time we participate as Dixie Mineral Council fieldtrip sponsor until 2021.

For clarification: Respirators or dust masks are optional but highly recommended for children and those with respiratory problems. Especially if, it is a windy day. Quarries and mining operations are typically high dust environments.

MORE FIELDTRIPS...

Currently, I am working on several fieldtrips to new and different locations. We might have one or more scheduled before the September meeting. So, notices will be emailed to members in advance of a given trip. For those without email, we will call you by phone to see if you are interested.

If there is a site you would like us to investigate or contact about a possible club fieldtrip, let me know with contact information. Current plan is to have fieldtrips into December. Weather permitting.

Beginners and experienced rockhounds might want to view this video on gear you will need to go collecting.

<https://www.mindat.org/a/beginnergear>

Heat Illnesses Can Be Deadly
Know the Signs & Act Quickly!

HEAT EXHAUSTION	OR	HEAT STROKE
Faint or dizzy		Throbbing headache
Excessive sweating		No sweating
Cool, pale, clammy skin		Body temperature above 103° Red, hot, dry skin
Rapid, weak pulse		Rapid, strong pulse
Nausea or vomiting		Nausea or vomiting
Muscle cramps		May lose consciousness

Helpful Tips/Reminders:
Act wisely to prevent heat illness. Work in the shade and take frequent breaks!
Keep your body hydrated! Drink plenty of water and avoid caffeine/alcohol.
Know all of the signs and symptoms of heat illness. Recognize the condition!
Act quickly to seek and/or provide aid if necessary. Call 9-1-1 for heat stroke!

• Get to a cooler, air-conditioned place
• Drink water if fully conscious
• Take a cool shower or use cold compresses

CALL 9-1-1
Take immediate action to cool the person until help arrives

National Weather Service Shreveport, LA www.weather.gov/shv

23 Amazing Sites For Free Gemology Courses & Resources

Discover the best websites where you can access free gemology courses online! We list the best places for gemological resources here for your convenience.

FROM THE VP:

Howdy Fellow Rockhounds:

Welcome all visitors, newcomers, friends and curiosity seekers to our fascinating world of earthly treasures. These are the natural resources that make our modern society to prosper and thrive.

It is said that if does not learn from their mistakes they are destine to repeat them. The same hold true for learning from others mistakes as well. So if we hope to learn, grow and thrive, it must be at the expense of making a few mistakes in order to achieve our desired goals.

We had a very productive Executive Board meeting this month. The Board is preparing for the upcoming Apple Harvest Festival in Amherst County.

Fieldtrips are being added to the list of current activities. Several are being developed for this fall to familiar and new collecting sites.

We been having programs this summer. Steve Lenhart is back this month for another great program. In September, our speaker and program will be equally informative. The topic of uranium occurrence in Virginia's Piedmont.

Are you interested in holding office? Please let us know. All seats are open.

Let's get ready and go collecting.

David



AUGUST'S BIRTHSTONE AND GEMSTONE

PERIDOT

By David Ball



Source: Wikipedia

Basically an iron-magnesium silicate commonly called olivine but gem quality stones are known as peridot. Originally it was called topazos for the island in the Red Sea where it was first discovered in ancient times. Today Topazos is known as Zebirget. Many of the peridot found there are larger gem stones.

When the gemstone has more yellowish green color, it is called chrysolite in the gem trade. Peridot forms under high heat and pressure. The largest faceted peridot, 310 carats, resides at the Smithsonian. Olivine has been found in meteorites.

Chemical Formula: $(\text{Fe, Mg})_2\text{SiO}_4$

Crystal Habit: Orthorhombic

Color: Olive green, green to yellowish green

Lustre: Vitreous luster, glassy, transparent to translucent

Cleavage: Prismatic cleavage, incomplete or conchoidal fractures

Streak: White or colorless

Moh's Hardness: 6.5-7.0

Specific Gravity: 3.32–3.35 [for gem quality]

Soluble In: Hydrochloric acid or as powder in sulfuric acid

Characteristics: Strong birefringence, typically lacking inclusions, resembles green bottle glass, alkaline or basic, granular

Environments: Ultramafic igneous rocks rich in iron and magnesium, mixed in basaltic rocks as olivine, peridotite, plutonic, often referred to as mantle rock because it forms deep in the earth's surface

Major Localities: St. John's (Zebirget) Island in the Red Sea, Burma, Brazil, Italy, Eifel Germany, Queensland Australia, South

Africa, China, Russia, Hawaiian Islands and Arizona

Virginia Localities: Found in Fauquier and Campbell Counties as peridotite. Albemarle, Amherst, Bedford, Culpeper, Rockingham Counties as olivine. Highland County in basalt. Virginia Beach in the sand. Chesterfield, Henrico and Mecklenburg Counties as olivine in meteorites.

International Gemstones: Carnelian



Source: Wikipedia



Olivine in basalt Source: Wikipedia

Papakōlea Beach (AKA: Green Sand Beach or Mahana Beach) in Hawaii is rich in weathered olivine sand from the basaltic lava rock.



Papakōlea Beach's green sand beach Source: Wikipedia



Source: frimminjimbits.blog

UPCOMING SHOWS:

Shenandoah Valley Gem & Mineral Society:
The 51st Annual Gem, Mineral & Jewelry Show
Augusta Expo - 277 Expo Road, Fishersville, VA
Friday 9/21/2018 2 pm - 6 pm
Saturday 9/22/2018 10 am - 6 pm
Sunday 9/23/2018 11 am - 5 pm
Admission is \$3.00 for Adults ❖ \$2.00 for
Students & Seniors ❖ Children age 12 & under
& Scouts in uniform admitted FREE
Admission good for all three days!



The Apple Harvest Festival
Amherst County High School

139 Lancer Lane, Amherst, VA 24521
October 20–21, 2018
Saturday, October 20th 9 am - 5pm
Sunday, October 21st 12 noon - 5 pm



Roanoke Valley Mineral & Gem Society
Salem Show – GMSL Fluorescent Display
November 23–25, 2018
November 23rd 2pm - 7 pm
November 24th 10 am - 6 pm
November 25th 12 noon - 5 pm

UPCOMING EVENTS:

EFMLS Wildacres Workshops: August 20-26;
September 3-9; 17-23

<http://www.amfed.org/efmls/>
<http://www.amfed.org/sfms/index.html>
<http://www.amfed.org/sfms/dmc/dmc.htm>

ICMJ Prospecting and Mining Journal
www.icmj.com or 831-479-1500

Central Virginia Gold Prospectors

Saturday, August 18, 2018 9:00 to 11:00 AM
Lee Wayside off Route 60 one mile south of the
Courthouse on the right.

American Lands Access Association

<http://amlands.org/6601.html>
Defending your right to collect on public lands.

JULY MEETING HIGHLIGHTS:

The Characterization and Naming of New Mineral Species
 From Lecture and Notes of Tony Nikischer

Abstract: The number of new minerals described each year has exploded, with more than 5400 accepted species today. The early chaotic history of mineral naming was tamed with the formation of the International Mineralogical Association in 1958. Who discovers new minerals, as well as what is required for a new mineral submission has become exceedingly complex. Some examples of mineral naming with odd twists are discussed and illustrated, and even the mineral named for a cat is illustrated!

By 1960, the International Mineralogical Society established the Commission on New Minerals and Mineral Names. Now if a mineralogist thinks they have discovered a new mineral, they must submit their research data and the proposed name to the Commission. It has helped to standardize the science and limit use of mineral names until approved.



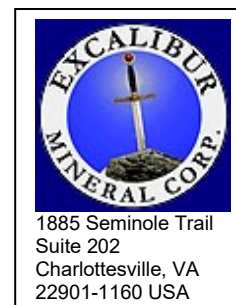
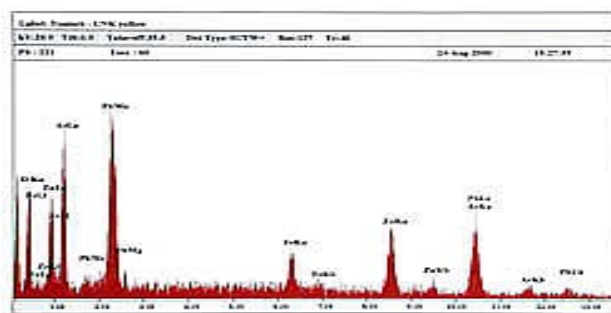
Excalibur Mineral Corporation's showroom.

The right to naming minerals falls to the individual that first reports making the discovery. Typically, a mineral will be named for the person who discovered it or other things like place it was found, compound elements, pets or wives. Often, minerals will be named to honor individuals of importance or high stature without any association to the discovery. If the name is not acceptable, the Commission may influence the naming.

There have been many new minerals named from rare specimens. Even more have been discovered from micro-specimens found in specimens by researchers.

As part of standardization, the Commission is reviewing old minerals and in some cases renaming them to an earlier identification. For example, Celestite was renamed to its original name: Celestine.

The science gets very involved and usually requires the services of skilled mineralogist. For example, the mineral structure, chemical composition, crystallography, physical characteristics and original rock formation are needed to qualify a mineral specimen for consideration. Scanning tunneling microscopes are used to determine minerals make-up at the atomic level. Below is sample analysis of a mineral specimen.



Nikischerite, Source:
 mindat.org

LEARNING AT MINDAT.ORG:

- https://www.mindat.org/a/what_is_a_mineral
- <https://www.mindat.org/article.php/2714/Determining+the+Hardness+of+a+Mineral>
- <https://www.mindat.org/article.php/2746/Determining+Lustre%3A+For+Beginning+Collectors>
- <https://www.mindat.org/article.php/2716/Determining+the+Specific+Gravity+of+a+Mineral>
- https://www.mindat.org/a/common_minerals
- https://www.mindat.org/a/mineral_evolution
- <https://www.mindat.org/article.php/2727/Miller+Indices>

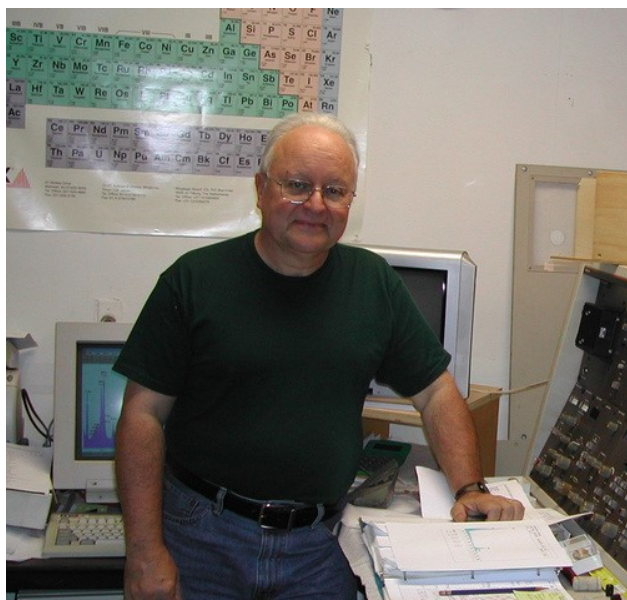
<https://www.mindat.org/article.php/2742/Herma-nn-Mauguin+Symmetry+Symbols>

<https://www.mindat.org/article.php/2721/Determ-ining+Symmetry+of+Crystals%3A+An+Introduct-ion+>

GMSL has been given the opportunity to sponsor a page at mindat.org to feature the minerals of Willis Mountain Kyanite Mine. The Board will review it to determine our commitment to this project. More to come...

Speaker Biography: Tony Nikischer is President of Excalibur Mineral Corporation, a dealers in rare minerals for researchers, museums and private collectors. A large warehouse and showroom is in Charlottesville, VA.

He is also founder and Chairman of the Board of The Hudson Institute of Mineralogy, an IRS-approved 501(c)3 tax exempt foundation dedicated to descriptive mineralogy, mineral preservation and education. The Institute is the owner of the popular website Mindat.org, its primary outreach vehicle.



Tony hard at work in his lab.

Tony is also publisher of the monthly magazine "Mineral News". He is a (retired) Director of the Friends of Mineralogy, a life member of Mineralogical Society of America, and member of the Mineralogical Association of Canada, and The Mineralogical Society of Great Britain.

He was the recipient of the 2011 Charles A. Salotti Earth Science Education Award, and the ugly green mineral Nikischerite

($\text{Fe}^{2+}_6\text{Al}_3(\text{OH})_{18}[\text{Na}(\text{H}_2\text{O})_6](\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$) was named in his honor in 2003. He has discovered and co-authored the description and publication of a number of new mineral species.

You Too Can Become a Part of the Story of Faceting

A History of Gem Cutting

By Dave Woolley

I have divided this presentation into four parts:

1. Hand Faceting
2. Jam Peg Faceting & Mechanical Improvements
3. Electronic Faceting
4. Build It Yourself Faceting Machines

Rocks and minerals have fascinated people for as long as there have been people; colors attract attention, crystals have unique shapes and sparkle. At first, someone might have found an unusual rock and picked it up to show others. The Australians Aborigines were probably the first to pick up rocks with flashes of brilliant color: Opal. What to do when you don't have pockets? Tie a string around it and hang it on your neck or wrist or fabricate a ring to keep it handy. Gems were eventually ground down from larger pieces by rubbing them against other rocks. Polishing was discovered as abrasives particles too wore smaller. Shapes evolved making owning and wearing a gem practical and interesting.

Politics, religion, and status have influenced how we adorn ourselves, not to mention sex appeal. A gem can be a sign of *political authority* found in a scepter and crown, or a unique ring with sealing wax to mark documents; *religious authority*, a ring to be kissed; and for those who could afford the rare, exotic, and expensive, *status*, plus a way to hide and transport wealth. I suspect that you are reading this for some of the same reasons. Fortunately, beautiful gems no longer have to be expensive. You can even collect your own stones, make your own cutting equipment, cut your own gems, and place them into your own handmade jewelry. The goals of this presentation are to familiarize you with the process of gem cutting, to explore the *development* of faceting equipment, and to get you involved.

Photographs:

Many photographs and illustrations were found on the internet including the first several taken from the highly recommended "Faceting History: Cutting Diamonds and Colored Stones" by Glenn Klein. Photographs with my hand included were taken from Ken Michalek's "United States Faceters Guild East Coast Collection of Historic Faceting Machines".

Several photos were made with the permission of the dealers representing those faceting machines at a recent Franklin Faceters Frolic held in Franklin, North Carolina.

Two concepts are critical to successful faceting: **Angle** and **Index**.

Two activities are important for enjoyment and making money: **Precision** and **Speed**.

Hand Faceting



1. This stone is **Hand Held**. A gem can be cut with a curve by rocking the stone against the Lap, or with a *flat surface*, a **Facet**, by holding the stone steady. Note the two **Flat Laps** and jars of finger applied wet **Abrasives** used to **Grind** and **Polish**. The abrasives tend to imbed the Lap's surface. This grinding **Lap-and-Spindle Shaft** is replaced with the other for the Polishing. **Coarse-Grinding** removes crud and yields a pleasing shape. **Fine-Grinding** or Pre-Polishing eliminates deep scratches from the Coarse-Grinding in preparation for Polishing. **Polishing** makes windows to expose the gem's interior. Tiny gems do not require the Coarse-Grinding.

Mirror Facets are cut on the back side of a transparent gem to reflect the light back through the top of the stone, increasing the sparkle. For certain transparent minerals as light enters a Facet, some of the light will **Refract** or separate into rainbow colors. Later, exiting through the top, some of the light may further refract increasing the separation of the rainbow colors. Gems with color mask the other refracted colors.

Note: All of the Facets are "eye balled in", located and cut by eye-judgements and hand-movements.

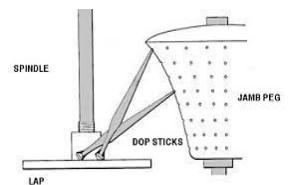
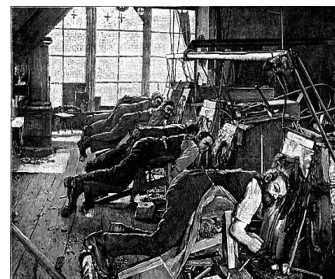


2. Another **Hand Powered**, Hand Faceting example. Move the bow one way for rotation; slack and return the bow to the starting position. The heavy Spindle acts as a flywheel maintaining the spinning momentum.

If these Faceters had glued sticks to their gems, they would have handles to hold their stones for better **Control** of the cutting, plus they would have saved their finger nails.

Historically, the most important improvement to gem cutting is temporarily gluing the stone to a stick. A Faceter can now **Control** the **Angle** of the cut, and the **Rotational Position** of the gem. The Angle the stick makes to the Lap allows for a low or a steep Facet angle. Rotation the stick to a new location **Indexes** or locates a new spot for the next Facet to be placed around the gem.

The next illustration demonstrates a diversion for cutting opaque or non-transparent gems.



3. **Cabochon** and curve-shaped gems were cut on the *perimeter* of these early water-powered **Grinding Wheels** rather than on the flat side of a Lap. Wheels were chiseled from Quartz Sandstone. It took a lot of pressure to cut a piece of Agate of the same hardness as the Quartz. Later, Emery, a Corundum/Hematite Rock, replaced the Sandstone. Corundum has a superior hardness requiring less body-pressure to cut. It too was replaced with Carborundum, a

synthetic abrasive. Modern Diamond abrasive wheels, much smaller, are now powered by electric motors, plus they cut with slight hand-pressure.

This is a side-view sketch of a **Jam Peg** faceting machine – a **Removable Hand Piece Machine**. The gem is glued to a wooden **Dop Stick** with old fashion Letter Sealing Wax called **Dop Wax**. Note the two Dop Sticks demonstrating two of the possible cutting **Angles**; different holes in the Jamb Peg change the Angle. Rotating the Dop Stick **Indexes** or locates the facets *around* the

perimeter of a gem. Rotating the Jam Peg and locking it on its threaded **Mast** to a new position is the **Fine Height Control** to make subtle changes in the Angle. A new line of vertical holes faces the Lap after a Fine Height adjustment. The curve of this Jamb Peg keeps the gem in the “work area” of the lap when cutting at different angles. Facets are *cut by eye* as in the earliest hand faceting, but the Control is greatly improved.

**DMC OFFICIAL COMBINED MINERAL COLLECTING FIELDTRIP OF THE GMSL
THE GEM AND MINERAL SOCIETY OF LYNCHBURG, VA INC. (HOST)
KYANITE MINING CORP. DILLWYN, VA. – ANNUAL FIELDTRIP
WILLIS MOUNTAIN KYANITE MINE**

If the mine is working, we may have to limit our collecting areas

Saturday, September 29, 2018

9:00 AM to 1:00 PM

Sign-up is required, call me, email me or sign-up at the meeting. If you cancel, notify me to be taken off the list as space may be limited due to the expanded list of clubs now participating in this annual event.

All club field trip leaders send me a list of your total collectors so that I can compile a list and forward to the mine management by 9-24-18. There is a limit of 150 collectors from all clubs for this event so there should be room for everyone who wants to attend.

SAFETY: Everyone must arrive at the office parking lot **no later than 8:30AM** to sign the release form and hear the required safety briefing. *Each Club field trip leader, or their appointed replacement, will act as safety observer while in the mine and will be expected to be on the lookout for and correct all safety infractions from any collector from any club.* Keep in mind that this site is one of the very few that are still open for collecting. **Not obeying all the safety rules will cause this site to be closed to all future collecting.**

DRIVING FROM THE ROANOKE AND LYNCHBURG AREA: From Roanoke, follow US 460 East to Lynchburg, to the Sheets Station on US 460 and Rt. 811 in New London. Continue on the US 460 East by-pass around Lynchburg thru Appomattox and take Rt. 24 North to its end at US 60, Mt. Rush. Continue on US 60 East to Sprouses Corner. Turn right on US 15 South and drive 4 miles to Willis Mt. Plant Road. Turn left and stop at the stone mine office. Park out of the way as not to block traffic. Do not park along Rt. 15. Allow 1 1/4 minimum hour driving time from New London west of Lynchburg to the mine office.

GENERAL LOCATION and ASSEMBLY TIME: Everyone will meet at the mine office for sign-in and safety instruction so be there **no later than 8:30am.** The mine is located north of Farmville, Va. on Rt. 15 North, James Madison Highway. Proceed from US 460 North on Rt. 15 for a little over 12 miles to Willis Mt. Plant Rd. The stone mine office is on the right. If you approach from Rt. 60 at Sprouses Corner, then go south on Rt. 15 for 4 miles to Willis Mt. Plant Rd. and the office will be on your left. Wait in the parking lot and do not block traffic. Many trucks may be using the road. While you're waiting, be sure to enjoy the beautiful blue kyanite bolder in the front yard from the old closed Baker Mountain. Barricades will block you from driving in restricted areas. Access to plant operations is prohibited.

COLLECTING: Willis Mountain is what's known as a monadnock. The kyanite exposure resisted weathering and, as the surrounding area was eroded and weathered away, the mountain outcrop was left standing. This is very much like the famous Graves Mountain kyanite mine in Georgia. The center of the mountain has been mostly mined away. We should be able to find plenty of white kyanite blades in the massive kyanite quartzite; pyrite; quartz; hematite with some iridescence, red mica, green mica, apatite and possibly some blue kyanite and pale green trolleite. Some of the white kyanite and quartz here have a beautiful light blue fluorescence and the apatite is yellow so bring your short wave lamp and blackout cloth.

EQUIPMENT: The standard quarry safety gear required is a hard hats with a mfg. date of 5 years or less (everyone must have an approved hard hat, no bicycle helmets. Small heads can wear a ball cap under the hard hat), safety glasses, respiratory protection from rock dust you may encounter, a pair of wheel chocks either purchased, homemade or even a rock is acceptable. Every time you leave the car, turn off the engine, put in park and apply the hand brake and wheel chocks. **ONLY STEEL OR MSHA (Federal Mine Safety and Health Act) APPROVED REINFORCED FIBERGLASS TOED BOOTS WILL BE ALLOWED. THERE WILL BE NO EXCEPTIONS!!!** No low quarters or sneakers even if they have steel or composite toes. **If you do not have all the required safety equipment, you will not be allowed to enter the quarry.** Also required are long pants, gloves, hammer and chisels, wrapping paper, buckets, water as it is very important to stay hydrated as it may be very hot. **If you have any medical condition that would put you in any danger, do not attempt this trip. For your own safety, let your field trip leader or collecting buddy know if you have any medical condition that could be a problem for you.** Be prepared for windy, hot or wet weather. We will be on the mountain top and it's always windy. We can drive to the designated collecting area, so hand trucks should not be needed. Bring a camera, as the view is awesome.

AFTER THE DIG SOCIAL: This year, the pavilion beside the office will be available immediately after the dig ends at 1PM to relax, cool off eat your lunch. This will also be a social get together so that we can have a chance to become better acquainted with the members of our rock club neighbors and to provide some time to relax before their long ride home. You might want to bring your own lawn chair. There may also be other groups there as invited guests of Kyanite Mining. There might be a brief program on the mine and lab tour.

AGE LIMIT: There is no age limit, but no toddlers please. All children must be signed for, **closely supervised by an adult and never left un-attended. They must also have all the required safety equipment.** **No Exceptions!!!** If parents have any questions about what is acceptable for your child, please call me and we will discuss it.

WEATHER: The trip will be canceled for safety concerns in case of hard rain or a thunderstorm. Call to confirm if there is any question.

CONTACT: David Ball, Home 434-983-9595 or Cell 703-256-0097 Field Trip Chairman for the Lynchburg Club, email: gmslveditor@gmail.com website: www.LynchburgRockClub.org

Gem and Mineral Society of Lynchburg, VA, Inc.

The purpose of GMSL is to promote education in the Earth Sciences, including: Mineralogy, Geology, Gemology, Paleontology, and Crystallography.

Lynchburg Rock Raiders is the official Future Rockhounds of America Association of the Gem & Mineral Society of Lynchburg, VA, Inc.

www.lynchburgrockclub.org

Meeting Location and Directions:

Fairview Center, 3621 Campbell Avenue, Lynchburg, VA 24501
From Route 29 Expressway or Route 460, take the Campbell Avenue exit. Follow Campbell Avenue to 3621, which is across from a Citco Station. There is a fence around the building, parking lot beside the building and parking on both side streets with an extra parking lot in the back by tennis courts. We will be looking for you to attend our meetings.

If the Lynchburg Public Schools are closed or have early dismissal for inclement weather, our meeting will be cancelled.

August 2018 Gem & Mineral Society of Lynchburg, VA, Inc. Volume 27~Issue No. 8
P.O. Box 917, Dillwyn, VA 23936



National Night Out Against Crime
Perseid Meteor Shower, August 12