



January Newsletter

1/2019

Volume 2019, Number 1

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Meeting at Miller Center
301 Grove Street
Lynchburg, VA 24501
3rd Wed of the month
7:00 pm until 9:00 pm

Workshop is the 2nd Saturday
of the month but in Feb. it
will be the 3rd Saturday
because of the field trip

President's Meanderings:

Having again been approached by the Nomination Committee and the Executive Committee to step up and take an office, I was gently encouraged to take on a task that I have cheerfully avoided for the past nearly 30 years. Rather than my dubious post of "Club Librarian", or the 'fill in' duties of Member-at-Large of the past, and due to my agreeable nature or approaching senility, I allowed my name in to be placed in nomination for President. The effective arm twisting was the comment that to maintain the club's liability insurance, the Eastern Federation need an "official mailing address – the Club's presidential address", to continue insuring club activities. I accept the responsibility.

Being sufficiently combobulated and after a decent dinner at Vinney's Italian Restaurant, (4:45pm, member invited, 4 and 6 seat tables) I feel that I will be adequately gruntuled to take on the task of running the monthly meetings. I usually don't procrastinate unless it is at the last minute. For those late nighters, a finish-up coffee will continue at McDonald's, across from Burlington Coat Factory.

If I should wander afield during a meeting, something I did a lot in my career, I trust some kind member will set me straight. While I am a founding member of this club, many do not realize that I was a floundering member of the Lynchburg's original rock club in 1969. Back then, I was asked to be the Field Trip Chairman, a position I declined as I knew next to nothing about Virginia geology. I was hopeful to learn something about local geology by going on field trips. Don and Nell McIntire were there and others who still remember club meetings in a local bank building.

One field trip was to the Bishop Mine in Lynch Station. An invited guest was Gene Wright, who, just released from the Army, was looking for something new to do. Being frustrated with several collectors scratching around for Turquoise crystals, he announced he knew how to dig a fox hole. He proceeded and found 15 samples. The Director and other Mineralogists of the Smithsonian Mineral Museum visited his house and purchased 3 magnificent specimens

2019 Officers

PRESIDENT - Dave Woolley
(434)
woolley.dave@gmail.com

First Vice President
Vacant

Second Vice President
Vacant

Secretary & Treasurer
Linda Noble
(434) 332-4869
linda-noble@hughes.net

Editor – Steve Gordon
(434) 942-1836
stevegordon@comcast.net

Members At Large -
Michael Staton &
Eric Routon

Youth Out Reach
Jennifer Staton

that are now a part of the Washington DC collection. The last time I saw Gene, I arranged for him to meet Lance Kearns. His favorite Turquoise sample, perhaps the finest ever recovered, is now in the Virginia Collection at James Madison University. Gene was particularly proud of his new pickup truck. In an effort to keep the miles off, he would ride his bike to from Lynchburg to Danville to make monthly truck payments. Other weekends he would peddle wherever the wind would blow, looking for rocks. Becoming a rock hound, he discovered a lot. He used his prized truck to return to major finds. One year he had to visit his wife's family near Saint Augustine. The compromise was she could drive the truck; he would ride his bike. He saw a lot of the South East United States on that month-long vacation but not much of the family.

In my dotage, which may begin next month, I will continue this column with other trips down memory lane while I can still find my way including rock locations that I discovered during my career as a Geologist with the Virginia Department of Highways, with notes on other interesting characters. As an Engineering Geologist my day to day work was in helping with the design of new bridge foundations, lots of field work with a crew of half crazed guys drilling holes in the ground, sampling the soil and recovering cored rock samples. I got to observe a lot of Virginia Geology that no one else will ever see. I worked on about 500 bridges as well as dealing with geologic emergencies like landslides, sinkholes and rock slope failures. Several of my sites are recorded in R. V. Dietrich's "Virginia Minerals, 1990" listed under the authors names; those sites were shared with Mineralogist, Dr. R. S. (Dick) Mitchell's students to research and publish at the University of Virginia. Most sites were small, on private property, and some to be cover with a road or bridge.

With the Steve Gordon's direction towards local activities, concentrating on local members and socializations, I feel that this year will be less burdening *for all* for finding volunteers to accept small jobs and man another show booth - subject to change: I did notice that this year's participation in the Salem show had some excited new faces in addition to the old timers.

At the meetings, we will present sign-up sheets (or you can call me) where members can offer their house plus coffee and donuts to a limited number of signed up guest. These month sheets will be laid out in advance offering members the opportunity to pick and choose their dates. This will provide a socialization hour or two plus an opportunity for the hosts to show their mineral display, lapidary shop, favorite bird feeder, or whatever. Hosts can post their agendas. Guest can bring theirs. The schedule will be posted in the newsletter. I remember the good times we had in my basement when the club lapidary workshop was my cabbing machine. Some few members actually cut their first gems on that old machine. We even had an

occasional informal class given by members. Everyone found something of interest, especially each other.

We will start looking for another location for a second workshop location. Nothing will replace David Callahan's continuing several days plus Saturday invitations to visit and learn gem cutting. Possibly we can find a local venue where teaching and gem cutting can become more Lynchburg-community-accessible. As John Haskin used to sign off (with modification): Keep looking!

Program for this Month

We have a new meeting place for our upcoming meetings. We are moving from Fairview to The Miller Center on Grove Street

For January and February we will not have a meeting as weather normally plays havoc during these months. March will be our next meeting and we have (tentative) Dave Young (owner of Stones and Bones on 221(located in the Foodlion shopping center at Graves Mill intersection)) speaking on Virginia minerals and collecting sites.

Your New Club Officers

President: Dave Woolley - First Vice President: Vacant

Second Vice President: Vacant – Secretary & Treasurer: Linda Noble

Membership Chairman: Thom Noble – Editor: Steve Gordon

Member At Large: Eric Routon & Michael Staton

Jennifer Staton volunteered to help with youth outreach program

Note from the Editor:

Hi All,

A new year is upon us and I hope all of you had a wonderful Christmas and that your new year has started off good. We as a club have struggled but with the New Year comes new prospects and hopes. With help from all of you we can make this club great again (to take a quote from our President).

I am looking for anyone to send me their "Why I became a rock hound" story. I am not looking for a long story but two or three lines that tells everyone why you are interested in rocks. For me it started with fluorescents and the rest is just icing on the cake. My son is who started out liking rocks and being a good parent I indulged him. I found myself in upper state New Jersey, on business, and close to Franklin NJ and decided to take a detour. Found my first fluorescent rock and the rest is history. That was back in 95 and from there I became field trip chairman then Second Vice President and was President of our club from 2001 thru 2005.

Please send me your short story stevegordon@comcast.net .

Field Trip Opportunities



Dixie Mineral Council Field Trips

The Southeast Federation of Mineralogical Societies, Inc



The Friendly Federation - Founded in 1976 to serve
DMC Program of the SFMS Field Trip Committee
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An Official Field Trip of the Athens Rock and Gem Club (Athens, GA) (HOST)

Saturday, February 16, 2019
9:00AM EST
Stoney Bluff
Girard, GA

TRIP: This is the Third Bi-annual trip to collect agate about 30 miles south of Augusta, GA. We will assemble in Girard, GA at 9 am in the vacant lot just south of the Post Office (do not park in the Post Office parking lot). The collecting site is only a few miles away.

COLLECTING: "Savannah River Agate"

BRING: Colorful, agatized material can be found on the surface at the site, but many people usually bring light digging tools and small pry bars to free larger boulders from the sandy soil. Leather gloves and safety glasses are recommended. Bring plenty of water and dress for the weather. **NOTE:** All holes must be re-filled before you leave.

CHILDREN (Yes): Children are allowed but must have adult supervision at all times.

PETS (No): Pets are not allowed.

FACILITIES: There are no facilities at this site and the closest facilities are several miles away.

CONTACT: Trip chairman: Jim Maudsley 706-353-1792 or jamesm24@charter.net

Roanoke Club's past president and their new 2nd VP and field trip leader has invited our club to join with them on February 9th for their field trip to the Radford University mineral museum and planetarium. There was a signup sheet at the December meeting but you can also contact me via email to let us know if you plan to attend. **See last page.**

Need more information let me know and I will send their email to you.

December Meeting Minutes

Gem & Mineral Society of Lynchburg Meeting – December 19, 2018 @ 7:00 PM

Attendance: 33

Meeting called to order with prayer from Steve Gordon, President

On Time Drawing Winners: Dave Woolley, Rodger Linkenhoker, Abby Allbeck, Natalie Darling, Linda Noble, Noell Woolley, David Brogan, Susan Brogan, Thom Noble, Jesse Dudley, Gabby Routon, Emily Staton, Clint Ferguson.

New Business:

Election of President was held and all other positions were not contested. Thank you to Nancy Linkenhoker and Kate Staton for counting of votes.

Club Officers for 2019

President: Dave Woolley

Editor – Steve Gordon

First Vice: - Vacant

Second Vice –Vacant

Treasurer- Linda Noble

Secretary – Linda Noble

Member at Large – Eric Routon

Member at Large – Michael Staton

Membership Chairman – Thom Noble

Jennifer Staton will help with youth outreach program.

Lynchburg club members are invited to a fieldtrip hosted by the Roanoke Club to Radford University on February 9th from 10:30 am – 2 pm

No regular Club meetings in the months of January and February.

Dave Young to present at March 2019 club meeting.

Newsletter Articles – please submit article to Steve on “Why I became a rock hound”, and other rock related articles.

Program:

Christmas meal and Dirty Santa exchange.

What is a mineral?

By Donald Peck (further edits by other mindat.org members)

There are several ways to define what a mineral is depending on how formal you want to be.

A completely informal but practical definition:

A mineral is a chemical element or compound that:

1. has a more-or-less constant composition.
2. is usually a solid with an ordered three dimensional array of ions and molecules in its crystal structure?
3. is formed by natural geologic processes and without human or other biologic intervention.
4. is not a mixture of two or more blended substances.



Quartz



Calcite



Labradorite (Plagioclase feldspar)



Biotite

Four of the Most Common Minerals on the Surface of the Earth

The formal and authoritative definition of a mineral is made by the Commission on New Minerals, Names and Classification (CNMNC), a working body of the International Mineralogical Association (IMA). The CNMNC is *THE* authority on the definition, approval, name, and classification of a mineral, old or new. Both the IMA and CNMNC are comprised of professional mineralogists appointed by the professional mineralogical societies of nations of the world.

Minerals and their names that were reported in the literature and generally accepted by professional scientists before 1959 were accepted by the CNMNC, without review or change. In other words, in 1959, the CNMNC "Grandfathered" all well-accepted and well-described minerals as of that date. From 1959 onward all new minerals had to be approved by the Commission.

In order to clarify procedures and language, in 1995 Ernest H. Nickel, writing for the CNMNC, defined a mineral as:

"In general terms, a mineral is an element or a chemical compound that is normally crystalline and that has been formed as a result of geological processes."

Article for this month part # 3 Faceting by Dave Woolley

You Too Can Become a Part of the Story of Faceting Part #3

Parts and Tools of a Modern Faceting Machine



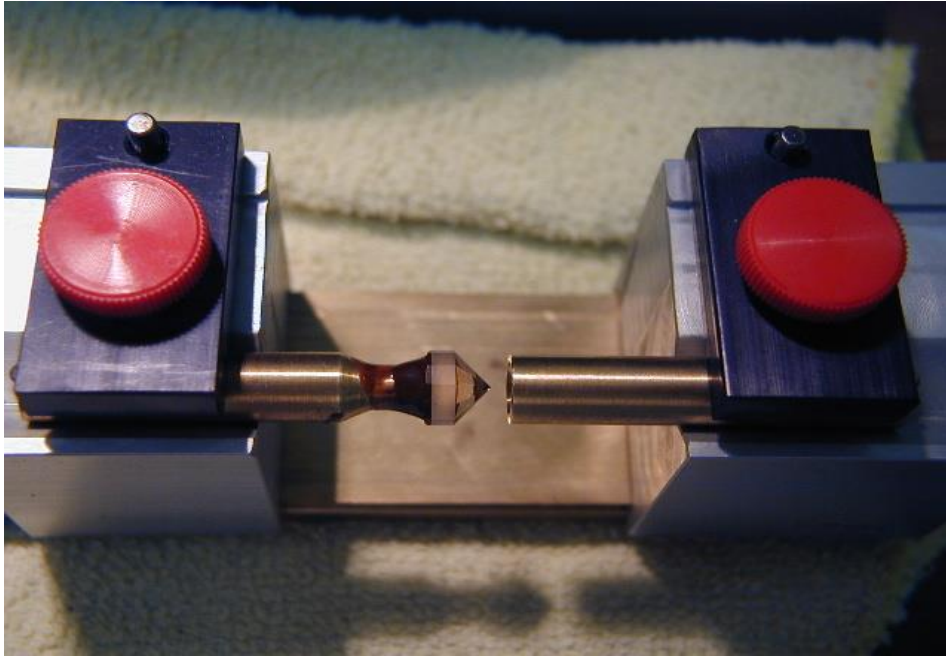
10. Early faceters made their own abrasives out of Quartz, Corundum, or Diamond depending on the hardness of the stone to be cut. Fragments were crushed to get the *particle size* abrasive needed.

One of the five most important advancements to faceting made near the end of the last Century is the Electrostatic Sorting of Abrasive *sizes*. Polishing no longer leaves scratches from larger-sized *unsorted* particles. Most faceters now use Diamond Abrasives bonded to metal laps. As a result, faceting is much “cleaner”; loose Abrasives are not splashed about causing contamination that may result in scratches.



11. Dop Sticks or a single **Dop**. Early Dop Sticks were made of wood. Modern machines use ridged metal Dops to hold the gem, usually made of brass or aluminum. Some have a flat surface to support a large area, some are grooved to take the bottom of Oval or Emerald

Cut gems, and some have cone depressions to accept the bottom of Round gems. Different diameters fit different sized gems.



12. This **Transfer Block** allows the precise cutting of the *other side* of a gem; the stone stays centered on the new Dop after a transfer. Sealing Wax is on the left; Epoxy or another glue will be used in the Dop on the right. After the glue is set, heat the wax to remove the first Dop. Finish by cutting the **Crown** or top of the gem. The **Pavilion** or bottom of this gem is finished; the **Girdle Facets** are cut but not polished.



13. Some Dops have a flat (red arrow), a bevel, or pin on the back end to match the inside of the machine. A **Rotational Alignment** is no longer required. These keys are specific to a particular brand of faceting machine and are used in that brand's Transfer Block to *lock-in* the Rotational Alignment between Pavilion and Crown.

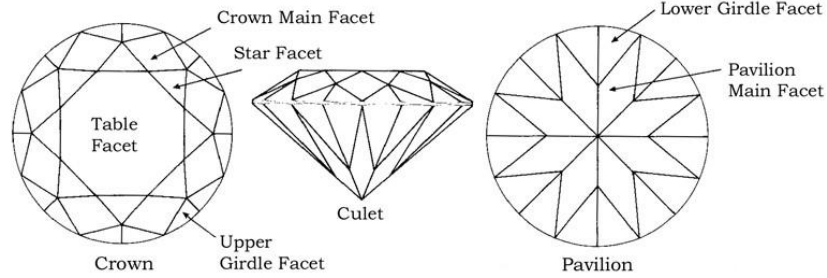


14. A 32 or 64 tooth **Index Gear** is standard. The additional number of teeth allows additional facets or different geometries possible for unusual gem designs. For those who don't like keeping track of numbers, the Long lines are for the **Main Facets**; short lines – the Girdle and **Break Facets**. The intermediate lines are for the **Star Facets** on the Crown of a standard round gem design.

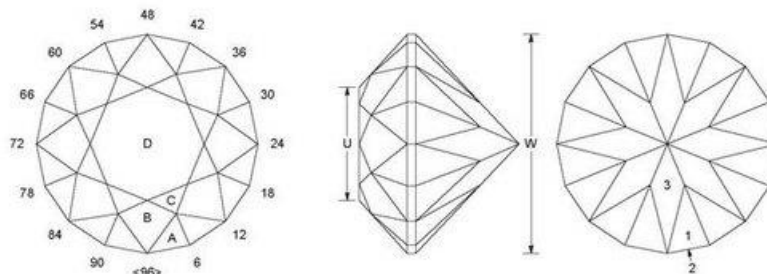


15. This is a typical installation of a changeable Index Gear with a **Pawl** or tooth to hold the Index. The Index Gear is mounted on a **Quill** or shaft. Controlling the ANGLE and the INDEX makes fine quality faceting possible.

Gem Design

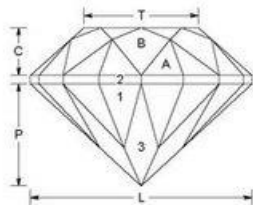


16. The **Standard Round Brilliant Gem Design**. Many excellent Gem Designs are published as “recipes”. Do a Google search for other Gem Design “recipes” and for photographs for inspiration. You can also create your own unique Gem Designs. Note: there are no Girdle Facets in this illustration.



Standard Round Brilliant (SRB)

Angles for R.I. = 1.540
 57 + 16 girdles = 73 facets
 8-fold, mirror-image symmetry
 96 index
 $L/W = 1.000$ $T/W = 0.516$ $U/W = 0.516$
 $P/W = 0.466$ $C/W = 0.218$
 $Vol./W^3 = 0.255$



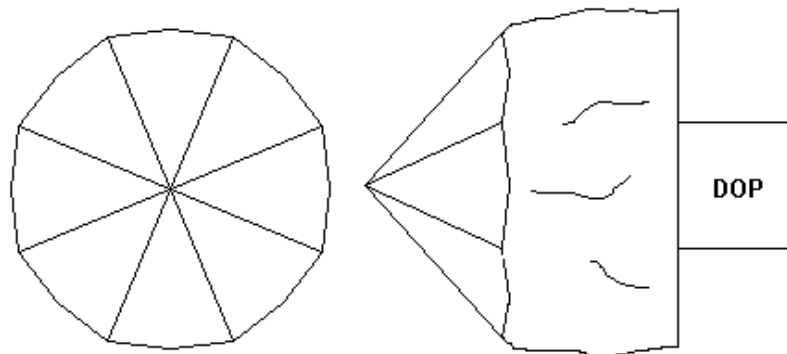
PAVILION

1	45.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Pavilion break facets
2	90.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Girdle facets
3	43.00°	96-12-24-36-48-60-72-84	Pavilion main facets

CROWN

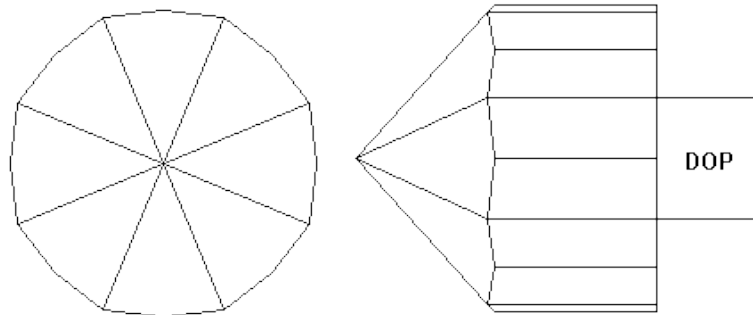
A	47.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Crown break facets
B	42.00°	96-12-24-36-48-60-72-84	Crown main facets
C	27.00°	06-18-30-42-54-66-78-90	Star facets
D	0.00°	Table	Table facet

17. A “recipe” for the Standard Round Brilliant. This narrative calls for the Pavilion Break Facets to be cut first, the Girdle Facets second, and the **Pavilion Main Facets** last. With a line-marked Index Gear, the only numbers of importance are the Angles for the seven *Groups of Facets*. The Pavilion Main Facet *Angle* is the most important because Pavilion Main Facets are cut to reflect light. Index Numbers can be ignored if the Index Gear has lines inscribed.



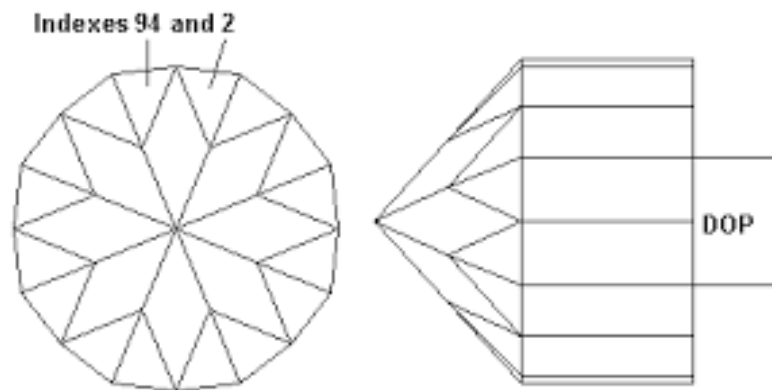
Main Facets Cut

18. The 8 facets of the Pavilion Main Facet *Group* are the first to be cut in this example.



Girdle Facets Added

19. The 16 Girdle Facets are added.



Break Facets Added

19. The 16 Pavilion Break Facets are added. A 96 tooth Index Gear was used in this example. Two Break Facets are numbered 94 and 2.

The Gem & Mineral Society of Lynchburg has been invited by the Roanoke Valley Mineral & Gem Society to attend their February field trip to the Radford University Mineral Museum and Planetarium.

Date: February 9, 2019 (no February workshop this day due to the field trip)

Time: 10am to 1pm (or later if needed)

Driving time to Radford University Museum of the Earth Sciences from Lynchburg, Va.

**ALLOW A MINIMUM OF 2.0 HOURS DRIVING TIME FROM THE SHEETZ STATION
LOCATED AT US Rt. 460W and STATE Rt. 811 IN NEW LONDON, VA.**

**PLAN YOUR ROUTE AND DRIVING TIME TO ARRIVE AT THE CENTER FOR THE SCIENCES
BUILDING NO LATER THAN 9:45 AM.**

**WE WILL SEE THE 1 HOUR REGULARLY SCHEDULED PLANETARIUM SHOW FIRST
AND THAT STARTS PROMPTLY AT 10AM.**

**WE WILL THEN VISIT THE MINERAL MUSEUM DIRECTLY AFTER THAT. WE SHOULD BE
READY TO DEPART BY 1PM. THEY WILL REMAIN OPEN A LITTLE LONGER IF WE WOULD
LIKE MORE VIEWING TIME.**

**Sign up is required: *The cut-off date for sign-up is February 3rd2019*
Please email me or call me my landline phone (no text) and leave a clear
message.**

Leave your name and how many will be in your group.

Youth are encouraged to attend if they are under your control at all times.

Email.....dbcall1@aol.com

Land Line.....540-297-1853 (leave a message please)

DRIVING DIRECTIONS

From Lynchburg:

Travel 460 West toward Roanoke and then turn right on US-220 Alternate North / Cloverdale Rd.
Take I-81 South and get off at Exit 109 (Radford Exit).

After taking Exit 109 (Radford Exit), go to the fourth traffic light (Main Street; US 11). Turn right
and then right again at the first traffic light into the parking lots B or C. The GPS coordinate for this
parking lot is 37.14025, 080.55063. This parking area is directly adjacent to the new Center for the
Sciences building with the museum and planetarium inside. The Center will arrange with the
Campus Police to allow our parking in these two normally No Parking lots for this event.

There is open parking on Saturdays anywhere on campus except in Handicapped spots or
otherwise indicated No Parking spots. If that lot is full, return to Main Street and turn right at the
very next light into another parking lot. If there is no luck there, use the campus map to locate any
Red Parking lot.

There is no admission charge. The museum and planetarium are now completely finished.