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Address change or questions, call Leah 541-205-4420 or e-mail [mrsllas@ccountry.net](mailto:mrsllas@ccountry.net)



**Dusty Rocks**

**January  
2019**

**ROCK AND ARROWHEAD CLUB**

**P.O. BOX 1803**

**KLAMATH FALLS, OR 97601**

**[www.klamathrockclub.org](http://www.klamathrockclub.org)**

# OFFICERS & EXECUTIVE BOARD



# DUSTY ROCKS

Rock and Arrowhead Club ~ Klamath Falls Oregon



**President:** Laura Limb  
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**NFMS Director:** Kathi Milem  
3333 Anderson #3 Klamath Falls, OR 97603

**NFMS Delegate:** Alyssa Carnes

**Member @ Large:** Leah Stump

[www.klamathrockclub.org](http://www.klamathrockclub.org)  
Webmaster Denise Sebastian,  
nicee1214@gmail.com Send your items for  
sale, photos, adventures, etc

**Rock and Arrowhead Club** Meetings are held at the Klamath County Museum Meeting Room – Main & Spring Streets, using the **West** entrance

**Meetings are held on the 2<sup>nd</sup> Monday of each month at 7:00 pm** with the exception of December when we have our Christmas Luncheon and Party and after the March show, when the meeting is held on Tuesday.

**Visitors are cordially invited to all meetings. To join:**

Dues are \$13.50 per year per adult  
Or \$25 for families

The club mailing address is:  
PO Box 1803, Klamath Falls OR 97601

### General Objectives of the Club:

To promote popular interest, knowledge and understanding in the various earth sciences, as in Geology, Mineralogy, Paleontology and Lapidary and other related subjects. To sponsor and provide means of coordinating the work and efforts of all persons interested therein.

### Helping Others:

The club participates in the NFMS stamp program, saving large commemoratives, airmail, pre-canceled, and foreign stamps of all values. Proceeds from stamp sales will be used to benefit any charity deemed worthy by the NFMS Endowment Fund.

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### Committee Chairs

- Sunshine.....Chris Chance
- Program.....Kristin Sayles
- Greeter/Door Prize.....
- Refreshments.....Chris Chance
- Historian.....Don Perryman
- Librarian.....
- Claims Rep.....Garwin Carlson
- Field Trips.....
- Black Light Display.....Marshall Curran
- Show Chair.....Garwin Carlson
- Asst Show Chair.....
- Safety Officer.....Laura Limb
- Publisher/ Webmaster...Denise Sebastian

**THE NORTHWEST NEWSLETTER** is published 11 times a year. Copies are sent to each member's household. The cost is included in your annual dues.

Two free copies of the **AFMS NEWSLETTER** are mailed to each member club. Subscriptions are available at \$3.50 for 9 issues. Send payment to:  
American Federation of Mineralogical Societies  
PO Box 26523 Oklahoma City, Ok. 73126

### We are affiliated with

- Northwest Federation of Mineralogical Societies
- American Federation of Mineralogical Societies

### Newsletter Editors

Chris Chance 541-891-3608  
& Linda Stroope 503-393-5025

**Visit Us At [www.klamathrockclub.org](http://www.klamathrockclub.org) Contact Webmaster Denise Sebastian nicee1214@gmail.com for anything relating to our website Please e-mail [mrsllas@ccountry.net](mailto:mrsllas@ccountry.net) to join & get on our email list.**

*Reference to use of arrowheads within our club is limited to flint napping activities during workshops, annual shows and personal creations. No gathering of arrowheads on field trips is authorized or suggested by any club members.*

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### From the President...

Dear Fellow Rock Hounds,

As the new year begins I would like to wish everyone a prosperous new year. May 2019 be a year of great adventures. We are knee deep in the planning for our March 2019 Rock Show in Klamath. We will always need volunteers so please consider helping the weekend of March 8-10. There are many roles that we need help with.

I want to send a shout out to some of our members who have been instrumental in our club's sustainability over the last few years. They are Marv & Leah Stump, Marshall Curran, LeRoy Bieler, Garwin Carlson, Kristen Sayles, Denise Sebastian, Lacey Jarrell, Ken and Marolyn Davis, Robert & Linda Stroope, Sam & Christine Chance, Barb and Bob Massey, Cheryl & Tom Endicott, Sherry Lee, Kathi Milem, and many others. Please do not be offended if I missed you. I appreciate the help given from everyone.

May this year be a happy and fruitful year for you and your families.

Your President  
Laura Limb

**NEXT MEETING:**  
**January meeting 1/14/19 7pm**  
**Treats by Don Perryman**

### Save the dates!

**March show meetings: 6pm Thursdays**

Our planning meeting schedule is as follows. All are welcome to attend help with this event! All meetings will be at 6pm in the Klamath Co Museum meeting room. If you have any questions, contact Kristin Sayles at 541-539-1452 or email kristinsayles@hotmail.com

- |               |               |
|---------------|---------------|
| <b>Jan 3</b>  | <b>Feb 7</b>  |
| <b>Jan 17</b> | <b>Feb 21</b> |
| <b>Jan 17</b> | <b>Feb 28</b> |
| <b>Jan 31</b> |               |



### Happy Birthday

- Marolyn Davis
- Linda Ellwanger
- Laura Limb
- Ed Meyer
- Dale Robinson
- David Sayles
- Kristin Sayles
- Dennis Sly

If we've missed you it's because our master list lacks your info. Help us update it, thanks!  
Contact Leah Stump





It's that time of year again - annual dues are due and the 'membership count' turned in to the Federation by the time you read this. If you haven't paid your dues by Jan 25, 2019, this will be the last newsletter you receive. Many thanks to the majority of you who have already renewed. If you are paying in cash at a meeting, please bring exact change or write a check to RAC.

### Remembering Averil Anderson 5/30/38 — 12/8/18

Averil was a skilled quilter, but most who knew her will remember her as an avid outdoors woman who embraced skiing (all kinds), riding the Oregon outback on horses or quads, and big game hunting. Professionally, before retirement, she was an OSU graduate in nursing & continued to express that deep caring for others in activities she took on later in life.



Here is a beautiful photo and remembrance her daughter posted on Facebook.



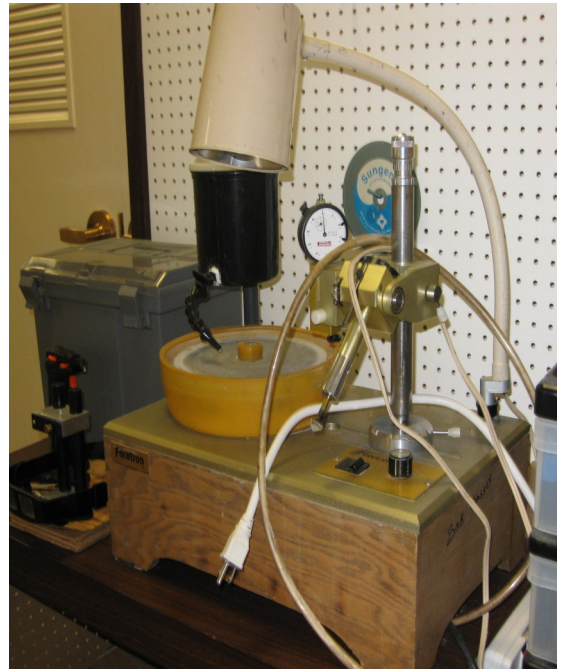
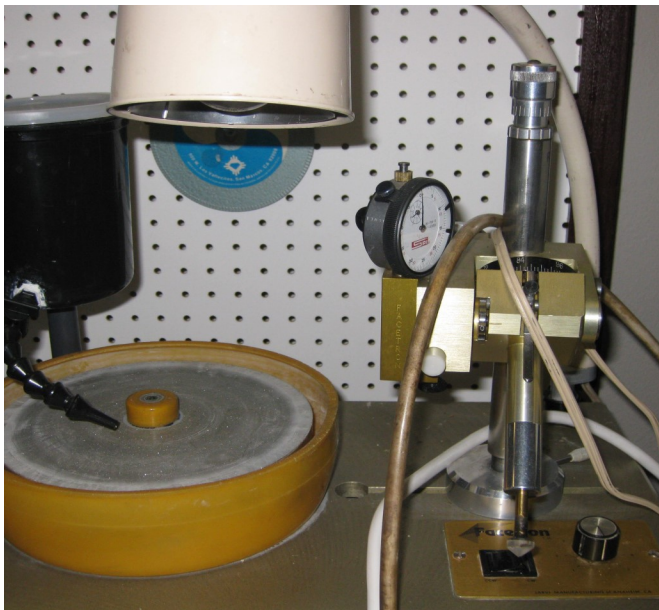
Averil requested any remembrances be sent to the Klamath County Museum, underscoring her love of history in both Klamath and Lake Counties.

## — — — The Grinder — — —

FACETRON brand name of faceting machine in excellent condition. Plus a standing filing cabinet, both on rollers for easy moving. There are many filing discs and accessories in the filing cabinet . A trim saw is also included.



**Please contact by phone, Barbara Massey  
Ph. 541-884-6820 to view and answer any questions.**



Word Search: Places Named After Minerals

G	Y	P	S	U	M	V	I	L	L	E	F	H
A	S	B	E	S	T	O	S	C	C	M	L	E
L	R	W	A	G	A	T	E	P	O	E	I	M
E	F	A	Z	R	A	N	D	D	P	R	N	A
N	N	O	G	T	I	B	E	L	P	C	T	T
A	Z	A	P	O	T	T	C	A	E	U	E	I
B	E	R	Y	L	N	V	E	R	R	R	T	T
H	I	D	D	E	N	I	T	E	V	I	Y	E
P	E	R	I	D	O	T	T	M	I	A	C	R
T	A	L	C	V	I	L	L	E	L	C	L	Y
F	O	R	G	Y	P	S	U	M	L	I	A	B
C	C	E	L	E	S	T	I	N	E	M	C	U
C	O	R	U	N	D	U	M	H	I	L	L	R

Gypsum Peridot Agate Calcite Mica Hematite Flint Ruby  
 Topaz Emerald Aragonite Hiddenite Asbestos Galena  
 Copperville Barite Gypsumville Corundum Beryl Talcville  
 Mercury



## RAC Christmas Potluck & Party, 2018



This was a MOVING, musical hat! Just fabulous!



Yes, Toni, that's a bag of giant carrots!

This year's Christmas potluck was a great success! We had plenty of good food (and some exceptional desserts) and had a good time meeting everyone, welcoming members that had not been able to attend previously. Thanks to Sam and Robert for helping with the Saturday setup and to all the partyers who stuck around and helped clean up in record time. A special thanks to Marshall and Garwin for putting on Robber Bingo for the new comers and us old timers. Lots of good food and good company!



## Successful Slabbing

By Stephen Taney

*Reprinted with permission by Lapidary Journal Jewelry Artist*

*This article will be too basic for many of our members, but has some very good information & explanations/definitions for those who are considering going beyond just collecting and piling up their rocks—as many of us do right now!*

I love to saw stone. Every cut reveals a section that no one has ever seen. But getting to that point has some challenges.

Have you ever purchased a diamond saw and noticed there are no directions on how to use it? I searched my lapidary books and some websites and found there wasn't much information on clamping stones in the saw for slabbing. Speed of the blade in RPM, feed rate of material into the spinning blade, coolants, yes—but not much on holding the rough and holding the work is a critical part of any task. So I've decided to pass along some techniques I've adapted from my machining background for slabbing stone with a diamond saw.

### Blades

The saw blade is a disc of metal with diamond grit bonded to the outside edge only. The method of attachment and amount of grit varies by manufacturer. The size of the blade is given in diameter, the blade thickness (in thousandths of inches) and the arbor (shaft) size. A third measurement is given, the *kerf*, or width of the slit made by a cutting tool for any material. In stone, the kerf is the amount of material being removed when grinding through the rough material.

Technically, diamond blades aren't really saw blades...they're very thin grinding wheels. Under normal\* conditions, diamond fractures in a predictable pattern as the cutting surface wears. The crystal breaks away and reveals a new cutting edge or crystal to resume abrading a surface. Thermal shock is the biggest reason for premature diamond blade failure. Thermal shock occurs when there are sudden or dramatic changes in temperature, which cause the diamonds to shatter. On a microscopic level, there is enough heat (over 400° in some cases) and pressure at the interface to boil off water based coolants. Oil based coolants are designed to wet the interface even under these harsh conditions. The coolant depth should cover about 1/2" of the lower saw blade in the coolant reservoir. The blade will then drag this liquid up, over and into the kerf, cooling the cut and flushing out the stone dust.

### Vise

A vise is made up of a few elements that work together to hold a stone securely while its being fed into the rotating saw blade. The vise is made up of two clamping surfaces: a bearing surface that the vise moves on and the feed mechanism. The clamping surfaces should be covered with plywood 1/2" to 3/4" thick to help in gripping the rough stone. If there are no wooden pieces on the vise, a shifting stone could fracture and a small section could break free of the clamping vise. This is usually disastrous for a saw blade, because shards can become trapped against the blade, or jammed, and it may bend, break or even freeze the motor. The added wood faces will provide a soft but resilient surface to continue gripping the rock even in the event of a fracture.

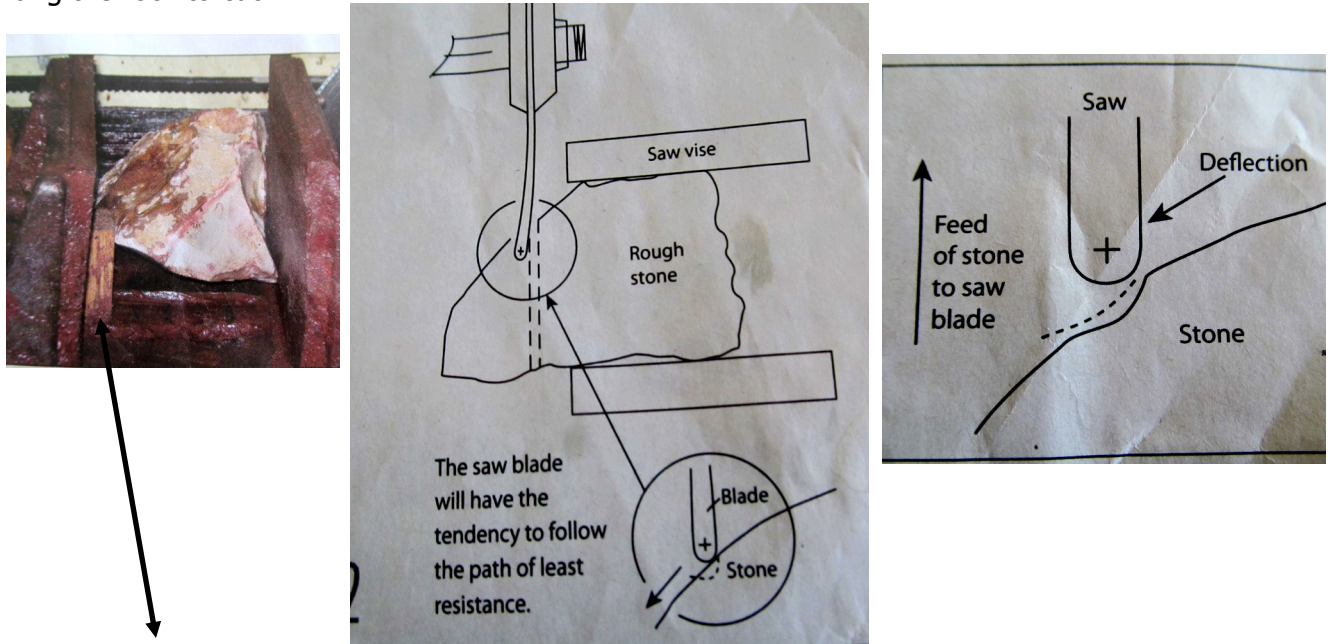
Take some measurements of your vise—these will tell you the maximum size of material that will fit in your particular saw. Line up the vise with the middle of the saw blade. Measure from the base of the vise to the top of the saw blade: this is the maximum height of rough that can safely be cut in the saw. Next, slide open the movable jaw vise to the maximum opening and engage the ratchet or feed nut and verify that the cover can close: this is the maximum length of the rough you can saw. Write these numbers down for future reference and take them with you when looking for rough. The movable jaw of the vise allows for rapid movement by means of a disconnecting nut, or a ratchet and a finer adjustment by means of a hand screw. Maximum clamping force is attained when the jaws are working parallel to each other is not an issue if the length of tone being cut is large enough to go beyond the center pivot point of the vise jaw, but many times this is not the case.



times this is not the case. The movable jaw can pivot right and left to allow for holding irregular surfaces a small amount of tilt to the jaws is acceptable, but try and keep them as close to parallel as possible.

## Making the Cut

Pull the carriage toward the front of the saw and free of the blade, ready to feed into *but not touching* the blade. Place the stone in the vise with the largest and flattest face toward the solid part of the vise and overhang the rock to cut.



Advance the movable jaw to just touch the work. Engage the ratchet and gently tighten with the hand screw. The point where the stone touches the jaws first must stay within the clamping surface. Adjust the stone as necessary.

You'll want to clamp the largest diameter of the stone first, supplementing with additional clamping area to overcome the forces of the saw. Look for any spaces where you can add smaller blocks of wood to support the work, as in the photo above.

Loosen & retighten the vise and give the piece a firm pull to see if there is any movement of the stone. If it shifts, add more wood shims where you saw movement. Take the time to do this now—it's worth the effort not to damage your saw blade.

If the rough has a sloped surface, the edge of the saw may deflect. Continuing to cut when this happens will damage the blade. To detect and prevent this, start the saw and listen for the blade to begin cutting. Time the cut for about 30 seconds. Stop the saw, disengage the carriage, pull the assembly away and then start to cut again. Stop and repeat. This approach works because the edge of the saw blade is rounded and is cutting a rounded surface. At some point, the saw is cutting only on one half of the edge of the blade—forcing it to one side. Not until the blade edge has penetrated the stone enough to a depth where the blade is cutting on its full surface will the deflection stop.

## Repositioning Rough

Often, you'll need to reposition the rough at some point. Trying to align and reclamp stone so the next slab is parallel to a previous cut is always a challenge. Short pieces of 2x4 are invaluable to have in the shop to help with this problem. I keep them around to glue to my end cuts. Originally I used epoxy but I couldn't remove that last slab without damaging it. Instead, I use tan, water soluble wood glue. This type of glue *is not affected* by the oil based coolants and when I'm done, the block can be soaked in a bucket of water to remove that last section of stone. How to: clean the stone surface with acetone and

a fresh paper towel to remove all the cutting oil. Then, add a generous amount of glue to the clean surface. Allow at least 24 hours for the glue to set. If the 4" side of the 2x4 is clamped in the vise, an additional 2x4 will act as a counter piece to keep the jaws parallel. Once you get the hang of it, both sides of a 2x4 can act as a gluing surface.

### Clamping with Step Blocks

Sometime a more flexible clamping method for odd sized pieces is needed. This is where step blocks are used, which is what machinists use when the table vise is not practical. Step blocks are a pair of steel blocks that have matching steps cut in them for creating small changes in height. Step blocks can be used in varying orientations and come in many sizes, making them a very versatile tool.

They can be purchased as sets where machine shop supplies are sold (which also makes them expensive), but if you are lucky, you can trade some of your lapidary projects for them at a small machine shop. As a former machinist, I know these blocks are always hanging around. I have even traded some cut geodes in return for machining a shaft for my saw! Most machinists are quite approachable and knowledgeable about repairing or adapting machinery, so check around.

\*from page one—the author didn't define what "normal conditions" are

*Author Stephen Taney has been stonemasonry for more than 25 years. Bringing out the natural beauty of a stone is one of the things he loves most about his work. He holds a BFA in sculpture from the University of Massachusetts Amherst*

### Cabochon vocabulary lesson:

The word cabochon comes from the French *en cabochon*, meaning "like a bald head". The similarity of a bald, shining pate to the rounded top of the gemstone is quite apparent. Other than that, here are a few descriptions of the different types of cabochon cuts:

**Simple cabochon:** It has a flat back and a simple, curved top. Then, looked at from above, the stone may be round or elliptical, square or rectangular, or any other freeform shape.

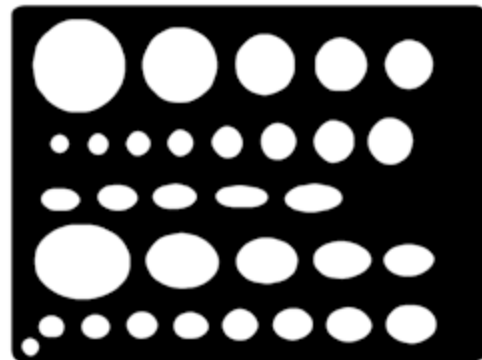
**Low cabochon:** This has a much flatter top than the simple cabochon. It is suited for softer stones, such as turquoise, where a high, protruding top is apt to be chipped and worn dull in a comparatively short time.

**High cabochon:** It has an especially high top and is thus more suitable for a hard stone. Translucent materials, such as chalcedony or quartz, are well adapted to the style because they will yield a high gloss polish while also preserving and enhancing the greatest depth of color from the stone.

**Hollow cabochon:** The hollow cabochon has a concave bottom or back. This style of cutting is used for dark, transparent stones where the light passing through the stone is largely lost. Carbuncles, or deeply colored garnets, have their beauty enhanced when cut this way.

**Double cabochon:** This is a style where both the top and bottom of the stone have been cut in convex domes. Both sides have been polished and the curvature on the back is typically less than that on the top. This cut is useful when the stone is either transparent, translucent, or has inclusions. Moss agate is a likely stone to be cut this way.

**Lentil cabochon:** This is like the double cabochon cut in that both the top and the bottom have been cut and polished in convex domes. However, unlike the double cabochon cut the lentil cabochon features identical curves on the top and bottom of the stone.



**Klamath Rock and Arrowhead Club Gem and Mineral Show**

2019 Show Theme: Nature’s Treasures

March 9<sup>th</sup> & 10<sup>th</sup>, 2019

Main Exhibit Building  
Klamath County Fairgrounds  
3531 6<sup>th</sup> St, Klamath Falls, OR

**Application for Display Cases**

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Club Affiliation: \_\_\_\_\_

Type of Display: \_\_\_\_\_

E-Mail: \_\_\_\_\_

I will need a case: \_\_\_\_\_ (4’ X 2’ X 2’) Total number of cases needed: \_\_\_\_\_

I am bringing my own case: \_\_\_\_\_ Total number of cases: \_\_\_\_\_ My case is \_\_\_ X \_\_\_ X \_\_\_

*Please call ahead of time if you need special accommodations.*

- Electricity is limited to 150 watts per case. Exhibitors are to furnish their own risers and liners.
- Setup starts Friday, March 8<sup>th</sup> from 10:00 am to 8:00 pm
- Displays need to be completed and ready for when the show opens at 9:00 am Saturday March 8<sup>th</sup>.
- Show hours: Saturday, March 9, 9:00 am to 5:00 pm. Sunday, March 10<sup>th</sup>, 9:30 to 4:00 pm.

The Klamath Rock & Arrowhead Club, its officers and appointees will not be responsible for any accident or loss that may occur to any exhibitor, his/her agent, or equipment at the show. Presentation of this ENTRY shall be deemed acceptance of this rule.

Exhibitor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Are you a first time entrant \_\_\_\_\_ or a returning entrant \_\_\_\_\_ ?

Return application to: **Laura Limb**  
**1528 Dayton St**  
**Klamath Falls, OR 97603**

Please return application by **February 28, 2019**. For more information call Laura @ 541-273-7503 or email at limb.laura@gmail.com.

**Note: there is NO CHARGE for cases! We are happy to have you participate!**

## Editor's Corner

A winter report of rock activity. Your rockpile will be easier to work from if you cover it with a cheap tarp to keep the snow off and even the rain, as it will protect the collection and prevent freezing them en masse. Covering doesn't take much effort and you will be able to get to your rocks with ease.

One of the most important things to improve your cutting is to wash the rocks before hand. Even a small piece of grit or sand could leave scratches in your rock slice.

Now is the time to sit by your warm fire and plan your next years rock hunting trips especially if you did well and even report a good trip to share with other members.

This last trip we took last year was to Gold Beach even with a little rain, we had a really good time and gathered many different kinds , that will benefit the club's programs are the kids painting included, with a good supply for them to paint.

Field trips are fun and to go a little closer to home just try our Yadenite which comes around July and is sponsored Chris both the Rock Club and the Klamath County Museum.

*Chris Chance, co-editor* email [chrischance38@msn.com](mailto:chrischance38@msn.com)

The March Show takes lots of time & energy, but in the back of your minds keep thinking about field trip locations for 2019. Guess Chris & I are on the same page, here. We need to try some new places. Our neighbors in Central Point (the Roxy Ann club) went to a site near Ashland that we need to find out about. Also they had an excellent petrified wood outing to Wooden Rock Creek near Powers. Where else can we go? Tom Endicott may have a guide for us for Graveyard Point. Bullards Beach at Bandon has good 'press' - article to follow in a future Dusty Rocks.

*Linda Stroope, co-editor* email [stroopemail@gmail.com](mailto:stroopemail@gmail.com)

### Some upcoming shows:

Feb 16-17 Antioch CA lapidary club at the Contra Costa Fairgrounds. Admission \$6

Feb 2-3 East King County Rock Club show at the Pickering Barn 1730 10th AVE NW in Issaquah, WA

Feb 22-24 in Portland, at OMSI Oregon Agate & Mineral Society show. Free admission

*Remember to collect tumbler material everyone.*

*Also rocks for the painters AND*

**Large rocks**, preferably with a corner sliced off exposing a promising interior.....all for the March show's silent auction .

*Auction buyers LOVE Big Rocks!*

*Members, if you attend another club's show, be sure to take note of things that club might be doing that we could consider adopting, ourselves. Report back at a meeting or email Chris or Linda and we can bring it up at the next meeting. Our show is fabulous but there's always room for improvement & new ideas.*