Can Women Wear Bolo Ties?

Ah reckon!!

Gabby Hayes (deceased)
OFFICERS FOR 2018

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Vice President Steve Karno 310 251-5323 srkarno@gmail.com
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Leslie Neff 310 318-2170 lesneff@aol.com
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CLUB EXPERTS
Chris Curtin - Fossil Preparation
Burt Dobratz - Fused Glass
Larry Hoskinson - Opal Cutting
Peggy Hill - Lapidary & Beads
Ken Oullette - Cuttle Bone Casting & Silver Fabrication
Chris LeMaster - Tumbling
Craig Polliard - Lost Wax Casting, Jade Cove Collector
Toy Sato - Suiseki (Stone Appreciation)
Terry Vasseur - Silver Fabrication
Teresita Vasseur - Pearl Stringing
Lynette Vandeveer - Wirewrap Jewelry

MISSION STATEMENT
This society was formed to collect and study minerals; to teach lapidary arts, to disseminate knowledge of mineralogy, lapidary work, and related activities; to exhibit specimens for public education; and to exchange information related to the earth sciences.

MONTHLY MEETINGS
Meetings are scheduled on the First Tuesday of the month, 6:30 p.m., in the meeting room of the Torrance Public Library, 3301, Torrance Blvd.. Visitors and guests are always welcomed at all club events.

MEMBERSHIP
Annual dues for a single member is $15 and $20 for a family payable by the 1st of the year. An annual 12 month subscription to the Agatizer comes with membership. A subscription to the Agatizer alone is $20.

WEBSITE Webmaster Jamie Erickson
Southbaylapidaryandmineralsociety.com

PDF READER LINK
http://www.adobe.com/products/acrobat/readstep2.html

AGATIZER CIRCULATION
June 2017 96 – December 2017 94

SBL&MS TAX STATUS
The South Bay Lapidary & Mineral Society is a nonprofit 501 ( c ) 3 organization, Tax ID # 95-350730

May Birthdays
Frank DeGrey May 4
Ed Whitefire May 10
Mary Sharp May 12
Trisha Quellette May 20
Thalia (Whitefire) Morgan May 27
Burt Dobratz May 30

May Anniversaries
Terry & Teresita Vasseur May 10
Craig & Kathy Polliard May 14
Ken & Trisha Quellette May 20
Lynette & Jim Vandeveer May 20
Al Betty Richards May 21

South Bay Lapidary & Mineral Society

May Tuesday 8, 2018
Display and Donate:
Drinks: Eileen Hill for drinks
Munches: Steve Karno and Mary Sharp

Terry Ann Walters wasn’t a member of the South Bay Lapidary & Mineral Society but she was the next best thing for us. She came to our shows every year both days. She was a professional jeweler and she always set up a display of faceted gems set in gold for us to drool over. And for whatever reason, she always purchased some of our amateurish jewelry. We will miss her. God bless.
From The President Message

We had another fantastic meeting last month. I want to thank Vice President Steve Karno for the exciting and informative speakers he has provided so far.

We also had a big turnout. I am hopeful this is an upturn in interest and that we continue to see new people who share our hobby and interests.

I want to thank Cris Curtin for volunteering to take on the responsibilities of Hospitality. Thank you, thank you, thank you!!

And last, but not least, what a wonderful surprise to have Jim and Cathe Erickson, on a vacation from Hawaii, back for a quick visit. AND, they signed up for another year of membership!!!

Please come to the board meeting before the meeting.

Thank you, gale

______________________

I have been waiting for years for those famous millennials to arrive to see what we are doing. At this year’s show, I had the privilege to meet three of those young women who were interested in how to cut and polish rocks for making jewelry. We don't have a shop for doing lapidary work for our new members. Those in our club who do that work, they do it in their garage or go to other clubs that will allow them to work in their shops.

I joined in the old Northrop Grumman Gem and Mineral club in 1993. At that time their club had about 70 members, mostly only old folks left. I started cutting with oil saws and grinding cabochons on old silicon grinding wheels on Thursday nights. That club had the best shop I have ever seen but it had to shut down in 2004 and make move for Elon Musk’s SpaceX (which we didn’t know that at that time).

See how I started lapidary at home “On the Rocks”.

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- - - FEDERATION DIRECTOR - - -

April 12 we went to Victorville in the Mojave Desert for a BLM (the Bureau of Land Management) "open house" about their WMRNP (the West Mojave Route Network Project).

The BLM started in 2006 to figure out how to manage the many organizations that were chopping up what was left of the government lands in the west. The militaries and the solar farms were adding the most of the acres for them although the environmental groups were also getting more National Parks and Forests leaving bits left here and there for the people's recreation (such as: rockhounds, horse riders, hikers, bike riders, RVs, campers, and motor off-roading). We were shocked to find that there weren't any rockhounders and no any off-roaders either (usually they always have a few).

I had my newest bola tie with the Secretary of The Interior - Ryan K. Zinke’s coin (one of Trump’s guy). I asked one of the BLM guys if I could take a picture of the people sitting in. I think most of those people were ranchers. Anyway, one of the top guys came over to find who I was and what was my interest in the project. Apparently, they must have had some problems before. When we came in there was one ranger in a military suit with an automatic pistol strapped on his hip but nothing happened.

– Continued on page 10
General Meeting April 3, 2018

6:30pm Welcome and Pledge of Allegiance with President Gale Fussello

Officer Reports:

- **Secretary: Jamie Erickson**
  - Thanks for liking and sharing on Facebook- please continue to do so! The more of you that engage with this platform, the more people will see our content- new stuff is published daily!
  - If you would like to have anything published on the web site, please contact Jamie. We have 186 people on our web site email list- let’s give them some new content to read!
  - Correspondence: show flyers for Costa Mesa Gem faire, and a thank you letter from El Camino College for the scholarship contribution.

- **Treasurer: Eugenia Dickson**
  - Report available at meeting or upon request.

- **Agatizer: Terry Vasseur**
  - CFMS director wrote a wonderful article including our club in their latest newsletter- thanks so much!
  - Donate to CFMS for their show raffle in Chico.
    - Asking for beaded necklaces, or finished pieces.
    - Collecting items to be donated in July and August.

- **Federation Director: Terry Vasseur**
  - Environmental report released that will update rock hounds on areas where they are allowed to collect rocks, and what time of year collecting is permitted. Much of some Mojave areas en route to Barstow will be allocated for solar panel installation.

- **Hospitality: Leslie Neff**
  - Tonight we have 11 guests and 22 members- welcome!

6:40pm Old Business:

- Hospitality is in need of a volunteer to be the chair! One would be responsible for sign in sheets at meetings, and sending greeting cards to members.
  - Thank you Chris Curtain for temporarily volunteering!

- Show Report: Carol Krone
  - Final numbers available to be seen… total profit was $10, 601 this year, not taking into account expenses that were close to $8,000.
    - Recommendations to the board:
      - Go down to having one bank account instead of two
      - All club checks should need two signatures
      - All show accounts should be audited (like the regular expense account)

6:51pm Educational Program: Introduced by Vice President Steve Karno

- Carol McQuery on our new State Dinosaur Augustynolophus Morrisi, and how it came to be; now on display at the Los Angeles Natural History Museum.

7:24pm Display and Donate

- Terry Vasseur- some lovely Agates!

7:29pm Break

8:01pm New Business

- The Bartlett center in downtown Torrance is open for all experienced and novice lapidary workers- let us know if you want details.
- If you have not signed up for display and donate or refreshment donations, please contact Leslie. All members are required to participate. If you do not sign up, a date will be assigned for you!
- Next month the meeting will be on May 8th, the SECOND Tuesday of the month- take note!
- April 22nd show chair wrap up meeting at 1-3pm. See her address in the Roster.

– Continued on page 10
ON THE ROCKS with TV

Tips–Ideas–Questions & Answers, on Anything Relating to the Hobby (submissions welcomed)

How To Start Lapidary

While I was in the Northrop club, Thursday nights just didn’t do enough, so I started buying some equipment I could use on weekends at home. The first thing I bought was a Hi-Tech All-U-Need 6” lap machine. I still have one. The only thing to be careful is, don’t press too hard on the edge. Excessive pressure on the 6” plate will eventually ruin a bearing in the motor. In that time it cost $300, now they are $460.

I wanted to have a small water saw to cut slabs and small rocks to prepare rock materials for polishing. The Hi-Tech 6” did the job. I bought that saw for $350 (now they are $550 with a vise to cut straight slices). After 22 years of use, I had to have a new motor.

Both machines are good for starters but if you expand your hobby you just might want to get the heavy duty Diamond Pacific Gene costing between $2000 to $2500. This machine will work much faster than the Hi-Tech.

The Bulletin Board

NEXT MEETING: Tuesday May 8, 2018

BOARD MEETING: May 8, 2018, 6 - 6:25 pm.
Agenda items:
1. New member applications
2. Show treasurer recommendations
I hope to see you all there.
Sincerely, President Gale Fussello

PROGRAM: "Various geology majors and professors from El Camino College will be describing the geology of state and national parks that they have visited during the past year. Topics will include several amazing geological features of Zion, Bryce Canyon, Valley of Fire, Anzo Borrego, Death Valley, Morro Bay, and Big Sur."

FEEDBACK
Letters to the Editor

Open loop, no feedback this month.

2018 Show Calendar

YUCAIPA VALLEY GEM & MINERAL SOCIETY
May 4, 5 & 6: YUCAIPA, CA
Yucaipa Music & Arts Festival
Yucaipa Blvd and Adams St
Hours: Fri 6 pm - 9 pm; Sat 12 noon - 10 pm, Sun 12 noon - 7 pm
Contact: Lee Peterson, (909) 794-0731
Email: res09ayd@verizon.net
Website: www.yvgms.org

SEARCHERS GEM & MINERAL CLUB SOCIETY
May 5 - 6: ANAHEIM, CA
Brookhurst Community Center
2271 W. Crescent Avenue
Hours: Sat 10 - 5; Sun 10 - 4:30
Contact: Margaret Hogarth, (909) 815-3045
Email: hogarth.m@gmail.com
Website: www.searchersrocks.org

WEST COAST GEM & MINERAL SHOW
May 19 - 21, 2017, Minerals * Fossils * Gemstones * Jewelry * Meteorites * Beads * Lapidary *
Free Admission * Free Parking *
SANTA ANA, CA * HOLIDAY INN / ORANGE CO. AIRPORT, 2726 S. Grand Ave. (Take 55 Fwy Exit 8 for Dyer Rd. To S Grand Ave)
<table>
<thead>
<tr>
<th>Polish mediums:</th>
<th>Buffing Materials:</th>
<th>Buffing Materials:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerium Oxide</td>
<td>CMO</td>
<td>Canvas</td>
</tr>
<tr>
<td>Chrome Oxide (Zam)</td>
<td>CHO</td>
<td>Felt</td>
</tr>
<tr>
<td>Diamond (pads, various grits)</td>
<td>D</td>
<td>Leather</td>
</tr>
<tr>
<td>Linde A (Aluminum Oxide)</td>
<td>LA</td>
<td>Muslin</td>
</tr>
<tr>
<td>Tin Oxide</td>
<td>TO</td>
<td>Wood</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actinolite</th>
<th>Mohs</th>
<th>Polish medium</th>
<th>Buff</th>
<th>Other Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agate (banded quartz), SiO₂</td>
<td>5-6</td>
<td>TO</td>
<td>?</td>
<td>Brittle, hard to cut &amp; polish</td>
</tr>
<tr>
<td>Alabaster (Calcite, CaCO₃) also Travertine (Limestone)</td>
<td>7</td>
<td>CMO, TO</td>
<td>1, 3</td>
<td>Press on CMO on Leather on a steel plate</td>
</tr>
<tr>
<td>Alabaster (Gypsum, CaSO₄)</td>
<td>1.5 - 2</td>
<td>TO</td>
<td>4</td>
<td>To speed polish add a few crystals of oxalic acid</td>
</tr>
<tr>
<td>Amethyst SiO₂ (trace Fe³⁺)</td>
<td>7</td>
<td>CHO, LA CMO</td>
<td>3, 2</td>
<td>Best with CMO on leather</td>
</tr>
<tr>
<td>Amber</td>
<td>2 - 3</td>
<td>TO</td>
<td>2, 6</td>
<td>Silicone based wax (Turtle Wax)</td>
</tr>
<tr>
<td>Apatite</td>
<td>5</td>
<td>LA, CHO</td>
<td>9</td>
<td>Use wax or tin/lead lap with alumina or cerium oxide; or chrome or tin oxide Ultralaps. Vinegar may ease polishing difficulties.</td>
</tr>
<tr>
<td>Adventurine (greenish Quartz)</td>
<td>7</td>
<td>TO</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Aragonite (CaCO₃)</td>
<td>3.5 - 4</td>
<td>CHO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benitoite</td>
<td>6 - 6.5</td>
<td>CHO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beryl (aquamarine, emerald, morganite, goshenite)</td>
<td>7.5 - 8</td>
<td>CHO, LA CMO D</td>
<td>2, 3</td>
<td>CMO on Felt Linde A or CHO on Leather Diamond on Phenolic</td>
</tr>
<tr>
<td>Bloodstone (Chalcedony Jasper)</td>
<td>7</td>
<td>LA</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Calcite</td>
<td>3</td>
<td>TO</td>
<td>3, 4</td>
<td>Muslin first or leather second</td>
</tr>
<tr>
<td>Cassiterite (Tin Oxide)</td>
<td>6 - 7</td>
<td>TO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Celestite (Strontium sulfate)</td>
<td>3 - 3.5</td>
<td>CHO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerussite (Lead Carbonate)</td>
<td>3 - 3.5</td>
<td>CHO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrysoberyl (Alexandrite, Catseye)</td>
<td>8 1/2</td>
<td>D</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Chrysoprase (green Chalcedony) SiO₂ with traces of Nickel</td>
<td>6 - 7</td>
<td>CMO LA, TO</td>
<td>2, 3</td>
<td>can be heat sensitive and more difficult than other chalcedonies</td>
</tr>
<tr>
<td>(Blue) Copper in quartz</td>
<td>7</td>
<td>LA</td>
<td>3</td>
<td>Start with Linde A slurry on leather, apply pressure and run dry to create heat</td>
</tr>
<tr>
<td>Lapidary Material</td>
<td>Mohs</td>
<td>Polish medium</td>
<td>Buff</td>
<td>Other Recommendations</td>
</tr>
<tr>
<td>-------------------</td>
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</tr>
<tr>
<td>Coral &amp; Petoskey Stone (CaCO₃)</td>
<td>4 - 5</td>
<td>TO</td>
<td>1, 6</td>
<td>Calcareous fossil. Some Oxalic acid added to compound speeds polish</td>
</tr>
<tr>
<td>Chrysocolla, Cu₂H₂Si₂O₆(OH)₄</td>
<td>2 - 4</td>
<td>CHO</td>
<td></td>
<td>Pre-polish D, Polish with Zam</td>
</tr>
<tr>
<td>Petrified Dinosaur Bone</td>
<td>7</td>
<td>CMO, TO, LA</td>
<td>3</td>
<td>Pet bone consists of hard quartz filled in bone marrow. The sponge cells around are softer.</td>
</tr>
<tr>
<td>Feldspar (Orthoclase, Moonstone, Sunstone, Labradorite, Amazonite)</td>
<td>6 - 6.5</td>
<td>CMO</td>
<td>2</td>
<td>Cab polish with Cerium Oxide on felt (Tumble with tin oxide or 50,000 diamond)</td>
</tr>
<tr>
<td>Fluorite (calcium fluoride, CaF, with small amounts of Yttrium &amp; Cerium)</td>
<td>4</td>
<td>LA, TO, CHO</td>
<td>2</td>
<td>Wax lap with Alumina or tin oxide or chrome oxide</td>
</tr>
<tr>
<td>Garnet (a group of silicate minerals)</td>
<td>6.5 - 7.5</td>
<td>LA</td>
<td>8</td>
<td>heat sensitive, Phenolic lap and an aluminum oxide</td>
</tr>
<tr>
<td>Goldstone (glass with suspended copper crystals)</td>
<td>5 - 5.5</td>
<td>CMO</td>
<td>2</td>
<td>heat sensitive manmade glass</td>
</tr>
<tr>
<td>Hematite (Fe₂O₃)</td>
<td>5 - 6</td>
<td>TO, CMO, LA</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Howlite (Ca₉Ba₃SiO₈(OH)₉)</td>
<td>3.5</td>
<td>LA, TO</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Jadeite (NaAlSi₂O₆)</td>
<td>6.5 - 7</td>
<td>CHO, LA</td>
<td>3</td>
<td>Use well worn sanding belt at 600 grit to pre-polish. Then use wet slurry of chrome oxide or sapphire powder (AlO₃) for polishing on leather and run. Use pressure to generate heat.</td>
</tr>
<tr>
<td>Jasper (Chalcedony) SiO₂ (plus)</td>
<td>6.5 - 7</td>
<td>CMO, LA</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Kyanite (Al₂SiO₅) Length Mohs 4-5, Cross Mohs 6-7</td>
<td>4-5</td>
<td>6-7</td>
<td>LA</td>
<td>9</td>
</tr>
<tr>
<td>Lapis Lazuli (Lazurite) (Na, Ca)₈(Al, Si)₂O₁₀(S, SO)₄</td>
<td>5 - 5.5</td>
<td>CHO, LA</td>
<td>3</td>
<td>well worn sanding belt at 600 grit to pre-polish. Then use wet slurry of chrome oxide or sapphire powder (AlO₃) for polishing on leather and run it dry.</td>
</tr>
<tr>
<td>Lepidolite K₂Li₂Al₆Si₃O₁₀(F, OH)₂</td>
<td>2.5 - 3</td>
<td>TO, CHO, D</td>
<td>?</td>
<td>Polishes with tin oxide, but we get a more even polish with diamond.</td>
</tr>
<tr>
<td>Malachite, Cu₂CO₃(OH)₃</td>
<td>3.5 - 4</td>
<td>CHO, LA</td>
<td>3</td>
<td>Finish polishing by hand with leather and a weak solution of polishing compound</td>
</tr>
<tr>
<td>Rhyolite (Banded Wonderstone, Hickoryite)</td>
<td>6 - 6.5</td>
<td>LA, TO</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Lapidary Material</td>
<td>Mohs</td>
<td>Polish medium</td>
<td>Buff</td>
<td>Other Recommendations</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Nephrite Jade (mixture of Actinolite &amp; Tremolite)</td>
<td>5.5 - 6</td>
<td>CHO, LA, TO</td>
<td>3</td>
<td>use heavy pressure on leather to develop heat</td>
</tr>
<tr>
<td>Obsidian</td>
<td>6 - 7</td>
<td>CMO</td>
<td>2</td>
<td>Heat sensitive</td>
</tr>
<tr>
<td>Opal (Australian) SiO₂ - nH₂O</td>
<td>5.5 - 6.5</td>
<td>D 3000, D 14,000, D 50,000</td>
<td>high-density wool felt on flat lap</td>
<td>Sanding pre-polish then start with 3000 &amp; 14,000 Diamond powder on a soft buff flat lap using Silicone extender fluid. Final polish with 50,000 Diamond on a foam backed soft flat lap also using Silicone extender fluid.</td>
</tr>
<tr>
<td>Psilomelane (Crown of Silver)</td>
<td>5 - 6</td>
<td>LA, TO</td>
<td>3</td>
<td>Best Linde A on leather</td>
</tr>
<tr>
<td>Peridot (Olivine group) (Mg, Fe)₂SiO₄</td>
<td>6.5 - 7</td>
<td>LA, CMO</td>
<td>9</td>
<td>Alumina oxide on a Tin lap. Use vinegar straight (no water), just a few drops of vinegar and polish</td>
</tr>
<tr>
<td>Petrified Wood</td>
<td>5 - 8</td>
<td>CMO, CHO, LA, TO</td>
<td>3</td>
<td>Sand 400, 800, 1800, 3500. If more luster or color from the polished surface is desired, use the extremely fine 8500 pad.</td>
</tr>
<tr>
<td>Quartz (SiO₂)</td>
<td>7</td>
<td>CMO, D</td>
<td>2, 3, 8</td>
<td></td>
</tr>
<tr>
<td>Rhodochrosite (MnCO₃)</td>
<td>3.5 - 4</td>
<td>LA, TO</td>
<td>3</td>
<td>Best polish on Linde A</td>
</tr>
<tr>
<td>Rhodonite (MnSiO₃)</td>
<td>5.5 - 6</td>
<td>LA, CMO</td>
<td>3</td>
<td>Best polish on Linde A</td>
</tr>
<tr>
<td>Ruby, Sapphire Al₂O₃</td>
<td>9</td>
<td>D</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Rutile TiO₃</td>
<td>6 - 6.5</td>
<td>LA</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Scapolite Na₄(Al₂Si₃O₁₀)Cl (Marialite) Ca₄(Al₂Si₃O₁₀)CO₂ (Meionite)</td>
<td>5 - 6</td>
<td>CMO</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Serpentine (group) (Mg,Fe)₃SiO₅(OH)₄</td>
<td>3 - 5</td>
<td>LA, TO, D</td>
<td>3, 8</td>
<td>Best polish on Linde A</td>
</tr>
<tr>
<td>Smithsonite, ZnCO₃</td>
<td>4 - 4.5</td>
<td>TO</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Sodalite, Na₄Al₆(SiO₄)₃Cl</td>
<td>5.5 - 6</td>
<td>CMO</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Spinel, MgAl₂O₄</td>
<td>7.5 - 8</td>
<td>D</td>
<td></td>
<td>On ceramic lap, with 5% sodium bisulfate solution</td>
</tr>
<tr>
<td>Sphalerite, ZnS</td>
<td>3.5 - 4</td>
<td>CHO</td>
<td></td>
<td>A difficult gemstone to polish use &quot;Voodoo Magic&quot; on non-metallic laps</td>
</tr>
<tr>
<td>Spodumene, LiAlSiO₆</td>
<td>6.5 - 7</td>
<td>TO</td>
<td>9</td>
<td>Color fades with UV exposure, shock sensitive and wear sensitive due to cleavage separations. Cold dop, work with &gt;600 diamond, Polish with an Ultra lap (Spectra or alumina), tin/lead lap with tin oxide or a wax lap.</td>
</tr>
<tr>
<td>Polish medium</td>
<td>Buffing Materials</td>
<td>Buffing Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cerium Oxide</td>
<td>CMO</td>
<td>Canvas 1 Old denim 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chrome Oxide (Zam)</td>
<td>CHO</td>
<td>Felt 2 Pellon (fleece) 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diamond (pads, various grits)</td>
<td>D</td>
<td>Leather 3 Phenolic (holds 14K to 50K Diamond) 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linde A (Aluminum Oxide)</td>
<td>LA</td>
<td>Muslin 4 Tin/lead 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tin Oxide</td>
<td>TO</td>
<td>Wood 5 Velvet 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lapidary Material</th>
<th>Mohs</th>
<th>Polish medium</th>
<th>Buff</th>
<th>Other Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thompsonite, NaCa₂Al₃Si₃O₁₀·6H₂O</td>
<td>5-5½</td>
<td>D CMO</td>
<td>8 2</td>
<td>14,000 Diamond on phenolic Cerium Oxide on Felt</td>
</tr>
<tr>
<td>Tigereye, (asbestos being replaced by iron bearing quartz)</td>
<td>7</td>
<td>LA, CMO</td>
<td>3 7</td>
<td>Fibrous, tends to undercut, polish across fibers</td>
</tr>
<tr>
<td>Titanite, CaTiSiO₅ (sphene)</td>
<td>5 - 5.5</td>
<td>TO</td>
<td>9</td>
<td>Brittle, poor wearability, heat sensitive, keep away from acids</td>
</tr>
<tr>
<td>Topaz, Al₂SiO₄(F,OH)₂</td>
<td>8</td>
<td>TO, LA, D</td>
<td></td>
<td>Cleavage plane across crystal, UV bleaches color</td>
</tr>
<tr>
<td>Tourmaline, (Elbaite) Na(Mg₂Fe₂)Al₂(BO₃)₃(SiO₃)₃OH,F₄; Black, Schorl, Blue (Indicolite), Pink &amp; Red (Rubellite), Brown (Dravite), Red &amp; Green</td>
<td>7 - 7.5</td>
<td>LA, CHO, TO D</td>
<td>3 1</td>
<td>Scored Tin lap or phenolic lap also recommended with Linde A &amp; vinegar</td>
</tr>
<tr>
<td>Turquoise, CuAl₆(PO₄)₃(OH)₂·H₂O</td>
<td>5 - 6</td>
<td>LA D</td>
<td>3 1</td>
<td>Zam (Chrome Oxide) on muslin buff (my personal choice)</td>
</tr>
<tr>
<td>Unikite, (composed of pink orthoclase feldspar, green epidote, and generally colorless quartz)</td>
<td>6 - 7</td>
<td>CMO</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Varascite &amp; Meta-Varascite (Al,Fe)PO₄·H₂O</td>
<td>4 - 4.5</td>
<td>LA LA CHO</td>
<td>4 3 4</td>
<td>Zam (Chrome Oxide) on muslin buff also works on some varieties</td>
</tr>
<tr>
<td>Vesuvianite, (Idocrase) Ca₁₀Mg₂Al₄(SiO₄)₃(Si₂O₇)₂(OH)₄</td>
<td>6.5</td>
<td>CMO</td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Zircon, ZrSiO₄</td>
<td>7.5</td>
<td>LA</td>
<td>9</td>
<td>Brittle</td>
</tr>
<tr>
<td>Zoisite; Ca₆Al₁₃Si₂O₃₂(OH) Thulite (brown, green) Tanzanite (blue)</td>
<td>6 - 6.5</td>
<td>CMO</td>
<td>3</td>
<td>Ruby in Zoisite; use very well worn sanding belt at 600 grit to pre-polish. Then use wet slurry of chrome oxide or sapphire powder (Al₂O₃) for polishing on leather and run it dry. This is the same procedure works for lapis lazuli and many jades.</td>
</tr>
<tr>
<td>Wonderstone (banded rhyolite)</td>
<td>6 - 7</td>
<td>LA TO</td>
<td>3 2</td>
<td></td>
</tr>
</tbody>
</table>

The Stone Buff & Polish Chart Has Up Dated To 2018 thanks to:
Covington Buff & Polish List from The Puget Sounder,
The 9/88 Albuquerque Buff & Polish chart,
The Roseville Rock Rollers,
The Northrop Grumman Recreation Club, and
Continued from page 4 - Meeting Minutes

- **Update**: this meeting has been cancelled as it is no longer needed
- Congrats to our People’s Choice award winners from our 2018 show!
  - 1: Chris Curtain on Acton Agates
  - 2: Terry Vasseur on silversmith jewelry
  - 3: Larry Hoskinson and Leslie Neff on Australian Opal
- Next month’s presentation will be Joe Holliday’s geology students from El Camino - don’t miss it!

8:08pm Raffle Drawing

President Gale Fussello asked for a motion to adjourn the meeting:

- Leslie Neff moved that we adjourn the meeting
- 2nd: Eugenia Dickson
  - Meeting adjourned at 8:15pm

Continued from page 3 - FEDERATION DIRECTOR

The presentation they gave was they have a map on a DVD that we can look at the particular areas we are interested. Our rockhounds will want to know what trails we can use to get to our collecting areas. Those trails we find we cannot use now, we can ask the BLM why between now and June 14. After that it is over.

This project has been a huge work for everyone. I think we rockhounds had the poorest understanding of what this was about. Whatever comes out of it, I guess it will be our fault if we aren't happy.

Criteria for Designation of Areas and Trails

The authorized officer shall designate all public lands as either open, limited, or closed to off-road vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

(A) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air or other resources of the public lands, and to prevent impairment of wilderness suitability.

(B) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.

(C) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

(D) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

What is GIS

(A Geographic Information System Maps)

You might remind the high line road to the microwave tower on the Cady Mountain map below.

The green lines are motorized (you can drive on it) but what is the green lines that have yellow around the green? I don’t know. You have to ask the BLM. The GIS specialists use GIS instead of Google Maps because they...
TIPS FROM A JEWELER'S BENCH

In the finishing sequence there’s a step called pre-polishing, between sanding and buffing, and one of the most effective tools I’ve found to help here is the little silicone wheels used in a Foredom or Dremel. They come in several different abrasive levels and several different shapes. The wheels are color coded to denote their abrasive level. Different shapes (coin, knife, cylinder, point, etc) are available to match the geometry of the area being cleaned up.

For a starter, I’d suggest a medium, a fine, and an extra fine wheel in both the coin shape and the knife-edge shape. Be sure to get a few extra mandrels so you’ll have one of each wheel shape mounted and ready to go.

The thicker coin shapes are particularly handy. Cylinder shapes are nice for doing the inside of rings, and knife-edge shapes quickly clean up the solder joint around the outside base of your bezels.

Most jewelry catalogs carry these wheels, but often the color codes don't match between different manufacturers.

RESHAVING SILICONE WHEELS

Silicone polishing wheels in the Dremel or Foredom are a great time saver, but after using them a bit they often need to be reshaped. This is particularly true with the knife-edge wheels.

The natural thought is to grab one of your files and hold it up against the rotating wheel to reshape it. But this gives you a problem. The grinding grit in the silicone wheel is much harder than steel, meaning that you end up grinding down the teeth of your file.

The best way to reshape your polishing wheels is to use a diamond file or a separating disk. If you don’t have one and must use a steel file, I sacrifice the area of the file that is closest to the handle. That’s an area which is not used in normal bench work.

Continued from page 10 - FEDERATION DIRECTOR

can use the data in separate layers than the combined layers you see in Google Maps. I have to stop at this GIS WMRNP thing because I’m barely able to run it yet and, there are only 181 maps!

One of the good things coming to you will be that you will be able to download any BLM map on your phone with a computer when this project is finished.
What Ya Been Up to Lately?

I can’t find anyone else who can let me know what they are doing this month so it is me to fill in the “What Ya Been Up to Lately”.

It’s springtime for cleaning time. I needed starting in the garage. That will take some time. My ten-inch saw is full of muck so I had to get going. I haven’t cleaned it for so long I can’t remember the last time I cleaned it. It has an inch and a half of muck in the bottom pan.

Over here I’m trying the oldtimers newspaper filtering the dirty mineral oil. It really takes a while to filter it especially when the weather is cool.

That mineral oil can cost anywhere from $60 or a $100 for five gallons so it is worth the effort to filter it.