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◆ **The Council Reporter** ◆

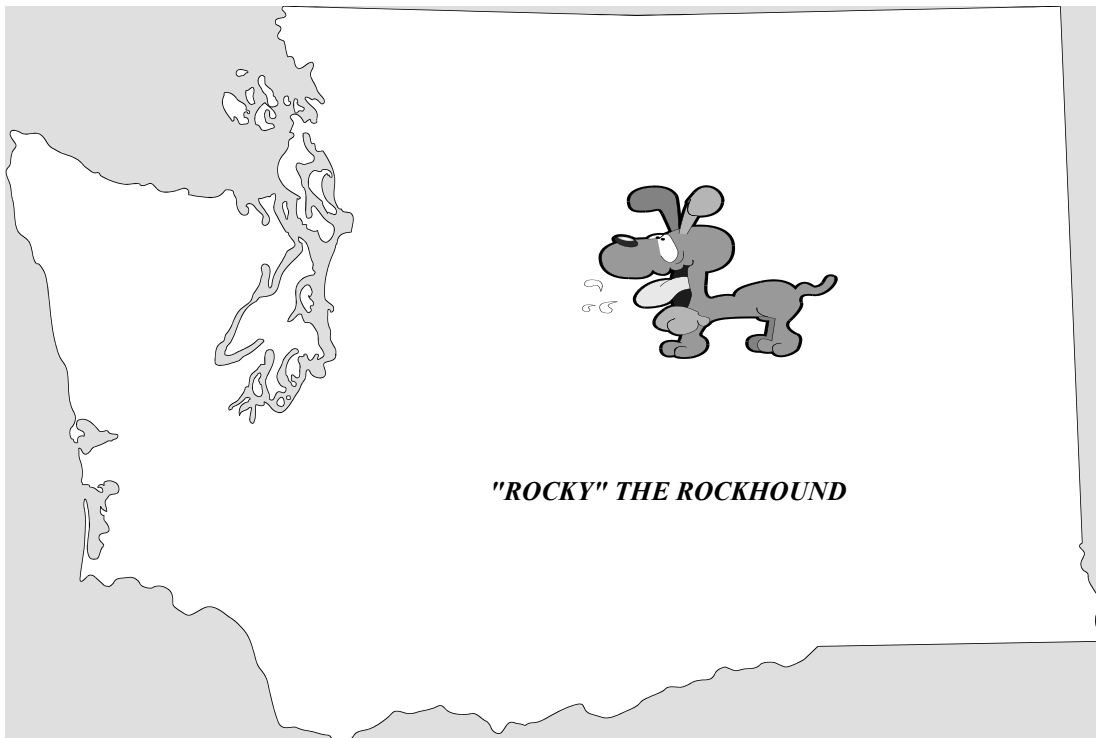
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**Official Publication of the  
Washington State Mineral Council**

**WASHINGTON STATE MINERAL COUNCIL  
2019 OFFICERS**

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Wagonmaster	open		

**The West Side Board meets the third Tuesday of each month between combined meetings, unless a special meeting is called. Usually no meeting in July and December dependent on Board action.**

**MAILING ADDRESS**

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The old URL [www.mineralcouncil.org](http://www.mineralcouncil.org) will continue to re-direct you to the new location.

**New e-mail address: [mineralcouncil@zoho.com](mailto:mineralcouncil@zoho.com). Please update your address books.**

Due to the coronavirus outbreak, the September meeting was took place using Skype.

Attendees: Bob, Diana, Vesta, Glenn

There weren't enough of us in attendance to conduct any business but a few things came up.

Bob got a call from a writer for the AAA magazine to write an article about rockhounding

Little Naches was closed briefly for collecting during the fires

Bob sent me link to the National Interagency Fire Center where you can look up information on all the fires.

<https://www.nifc.gov/fireInfo/nfn.htm>

This page will list today's activity by state, and on this page you can see the the line 'Please check the IMSR for more information' and this will give you a little more information on current fire and also a 'link' to Geographic Area daily reports.

On this link you will find a listing of areas "Northwest Area" and a number of files. I use the Northwest area file to see a map of the the fire and using the roller on my mouse I can enlarge the area to the point I can see individual roads.

Meeting adjourned

Submitted by Glenn Morita, Secretary Pro-Tem

I will send out another Skype link for the next meeting since it looks like we will be meeting online for the foreseeable future.

Bob sent out the following information on new legislation:

#### **House Bill 2579:**

#### **Hardrock Leasing and Reclamation Act of 2019**

In 2018, I reported on a bill that had been submitted to Congress about reviewing the requirements applicable to locatable minerals on public lands. A new look at replacing the 1872 Mining laws regarding filing claims on federal lands. That bill was again issued in 2019 updated and again submitted on August 4, 2020. The name of the bill is H.R 2579: Hardrock Leasing and Reclamation Act of 2019. This bill is 132 pages in length and has some good parts and some that will not be accepted very well. I would suggest that all rockhounds or anyone interested in minerals read through the table of content and can choose what you want to read and possibly comment to the committee or your representative. The following are topics in the table of contents: Section 1 – short title; table of contents, Section 2 – Definition and references, Section 3 – Application rules. Title I – Mineral Leasing, Exploration, and Development, Title II – Consultation Procedure, Title III - Environmental Considerations of Mineral Exploration and Development, Title IV - Abandoned Hardrock Mine Reclamation, Title V – Additional Provisions.

## **Westside Board Meeting AGENDA**

Opening of Meeting  
Treasurer's Report  
◇ Kathy Earnst  
Committee Reports  
◇ Wagonmaster -Ed Lehman  
Old Business  
New Business  
Open Comments  
Adjourn

## **Proposed Meeting Calendar for 2020**

West side board meetings:  
01/21, 03/17, 05/19, 10/20?

At 7:30PM at the  
Maplewood Clubhouse  
8802 196th St SW, Edmonds

General meetings :  
04/18, 06/13, 11/07?

All general meetings will be held at:

Palace Café  
4th & Main  
Ellensburg  
Meeting @ 9:30 AM

## **GPS Co-ordinates Needed**

**The WSMC needs the GPS co-ordinates of any and all of the collecting sites in the state. In an effort to make the map booklets as accurate as possible the Mineral Council is asking for everyone to record GPS readings while on field trips. The data can also be used to help in our fight to keep our collecting areas open.**

## **Dues are due**

**Download the PDF or Word version from the WSMC website in the Misc. Resources menu.**

**Please send the dues and form to Kathy Earnst**

27871 Minkler Road  
Sedro Woolley, WA 98284

The following are a few bits and pieces of the above sections. Section 2, (6) The term “casual Use” – (A) Subject to Subparagraph (B) and (C), means mineral activities that do not ordinarily result in any disturbance of public lands and resources: (B) includes collection of geochemical, rock, soil, or mineral specimens using hand tools, hand panning, or non-motorized sluicing; and (C) does not include- (i) the use of mechanized earth-moving equipment, suction dredging, or explosive;(ii) the use of motor vehicles in areas closed to off-road vehicles; (iii)the construction of roads or drill pads; and (iv)the use of toxic or hazardous materials. Section 2, (12) The term “Federal Land” means any land , and any interest in land, that is owned by the United States, except lands in the National Park System, Indian lands, and lands on the Outer Continental shelf.

Following up on the above statement, in Title III under Section 302 Permits - this state: (a) Permits required. – No person may engage in mineral activities on Federal land that may cause a disturbance of surface resources, including land, air, ground water and surface water, and fish and wildlife, unless a permit was issued to such person under this title authorizing such activities. (b) Negligible disturbances. Notwithstanding subsection (a), a permit under this title shall not be required for mineral activities that are a casual usage on Federal Land.

I believe this last statement helps the rockhound by not requiring a permit, etc. to collect specimens on federal land. You will also notice that they discuss leasing rather having a mining claim (all of Title I). I believe the intent is to no new claims, just people leasing land for mining.

It is difficult to estimate when this bill will be considered by both houses of congress, but I believe it will get in time.

### THE THREE C’S OF COLLECTION MAINTENANCE

by Rick Kennedy

While we are going through this unprecedented time, many of us find ourselves at home with more spare time than we are used to. Perhaps a good use of this time would be to spend it on our rock, mineral and gemstone collections. If your specimens are in drawers or on display, a bit of maintenance is never a bad thing. The three “C’s” of collection maintenance are clean, curate, and catalogue.

**Clean:** Most of our items have been on display or in a drawer for many years, they may just have a bit of dust, or they may be undergoing chemical alteration. For many specimens, a simple blow with “canned air” that people use to blow dust off of their computer keyboards is enough. For others, water with gentle brushing or a gentle spray from a water. “Needle Gun” will do the trick. Check any sulfide rocks/ minerals (Pyrite and Marcasite are the worst offenders) for strong smells of Sulphur. That is a sign that the minerals are suffering from chemical degradation. Depending on the level of degradation, the specimen may be salvaged or may need to be disposed of.

**Curate:** Do your specimens have labels? You may know quite a bit about the rocks you have, but others don’t. All of your specimens should have labels. Now is a good time to check your labels for accuracy or to make labels for specimens that don’t have them.

For materials from the USA, labels usually follow this format:

- Mineral or Rock name
- Precise location (Mine name or anything that defines the most accurate locality info)
- County
- State

For material whose origin is outside the USA, the first two lines should be the same, from there one has to improvise as all countries are organized differently into counties, states, provinces, prefectures, regions, departments, etc. Online sources like Mindat are very helpful to obtain the most precise locality information.

**Catalogue:** Once you have all of the information that would go on a label, create a catalogue so that you have both a handy list and a way to cross reference the specimens in your collection. It is best to do this on a computer in a spreadsheet program like Excel, but you can use even the simplest of word processing pro-grams or even write it out by hand if you want to be “Old School”. I organize my spreadsheet with the following headers:

Catalogue number – Rock or mineral species name – Location – How acquired – Comments.

Here would be an example:

#1001 – Quartz, variety Scepter – FH Claim, HJ, Washoe Co., NV – Self collected – Dug in May, 2016.

If you want to, you can also add a picture of your specimen! When you are done, you will know your specimens better, you will have a database of what you have and maybe even come up with more ideas for at home or at show displays once the world gets back to normal.

Enjoy!

(from West Seattle Petroglyphs, 09/20, via The Tumbler, July 2020; via Breccia, April 2020)

### What to Do with Your Trim Saw Scraps

By Jim Retzer

What do you do with all those small pieces that are cut off on your trim saw? If they are big enough you can use them to make another cabochon or put them in your tumbler. But what about the slivers and odd shaped pieces that are too small? Do not throw them away, they are still usable. I put them in a container and save them to use for later project. Some of these scraps can be used for inlay and mosaic projects, some can be crushed, and the power used with epoxy for inlay and some can be used to form a laminated stone.

**2020 WSMC SPONSORED FIELD TRIPS**

The WA St. Mineral Council plans guided fieldtrips to collecting sites. Open to member clubs, and the general public. Most trips are free. Included are the Pow Wow trips (must join to go on trips). Host clubs and contact persons will be set up as I gather info. For updated info, go to [mineralcouncil.wordpress.com](http://mineralcouncil.wordpress.com) or contact Ed Lehman at [wsmced@hotmail.com](mailto:wsmced@hotmail.com) or h ph# (425) 334-6282 Cell# (425) 760-2786. Pow Wow Dues are \$7.50 each or &15 a family. They supply 3 free breakfast's on trips (what a deal).

Date	Host	Site	Meeting place and time	Material	Tools
01/25	DARR	So Skagit	9am Hwy 9 & South Skagit Hwy P & R	Jade, Hematite & more	Stream Bar
02/15	MSVL	Walker Valley	Big Lake Store 9am	Geodes & Agates	Hard rock tools
03/21	MSVL	Beaver Valley	Beaver Valley Rd Info Center	Geodes, Zeolites & Calcite	Hard Rock Tools
04/04	DARR	Racehorse Creek	Hwy 542 @ Round About 10 m I-5 9am	Fossils & Morell mushrooms	Dig & Lt Hard
04/18-19	POW	Saddle Mt Mattawa	Boat Launch 8am	Petrified Wood	Dig & Hard Rock
05/09	DARR	Cascade River	Marblemount @ 9am left turn	Talc, Listwonite etc (small fee)	Hardrock Tools
05/23	DARR	Red Bridge Verlot	Verlot Ranger Station 9am	Rainbow Chert, Concretions	Light Hardrock
06/23-28	POW	Madras Oregon	Jefferson Fair Ground 8am	Agate, Jasper, T-Eggs, Wood	Dig & Hard Rock
06/27	MSVL	Saddle Mt	Mattawa W Mattawa Lepricon Market 9am	Petrified Wood maybe Opal	Dig & Hard Rock
07/20	DARR	Sweetwater	Darrington Rock Show 11am	Travertine, Sauk R Bars	Dig & Hard Rock
08/15-16	PVGM	Greenwater (Sat BBQ)	Enumclaw Ranger St. 9am	Agate, Jasper, Opal & Wood	Dig & lite hard rok
09/12-13	POW	Red Top/Teaway	Teaway @ Middle Fork Campground 8am	Geodes, Agate, Jasper & Jade	Dig & Hard Rock
09/19	N O A	Little Naches	Hwy 410 & FR 19 10am	T-Eggs, WA Lily pad & Fossil	Dig & lite hard rk
10/24	MSVL	Money Creek Sky-komish	Money Ck Campground 9am	Picture Jasper	Dig & R. Bar pick
11/21	DARR	Blanchard Hill	I-5 Exit 240 Gas Mart 9am	WA Dalmation stone & Chert	Hard rock tools

This area left open for you or your club can volunteer to lead more trips

Contact Ed and I will fill in the blank space for you [wsmced@hotmail.com](mailto:wsmced@hotmail.com) (425) 334-6282 (425) 760-2786

I am handicapped at the moment. As you can see all trips listed are drive right to

Please wait for guide before going off collecting, and obey their rules. They are familiar with managers needs. We will get you a good area at site.

**100 % of map booklet sales goes to Walker Valley lease, insurance for access to private property and general operation of WSMC**

**Many trips need Discover Pass, Trailhead Pass & Forest Pass. Ask when you inquire about trip**

**ALWAYS contact host for updated info a week before trip !!!**

**HOST CLUB**

**CONTACT INFO**

MSVL = Marysville Rock Club Ed Lehman [wsmced@hotmail.com](mailto:wsmced@hotmail.com) h# (425) 334-6282 c# (425) 760-2786

DARR = Darrington Rock Club “ “ “ “ “ “ :

SPOK = Spokane Rock Rollers Mike Shaw [mikeshawmoose@yahoo.com](mailto:mikeshawmoose@yahoo.com) (509) 251-1574 or (509) 244-8542

N O A = Tony Johnson (253) 863-9238

PVGM = Dennis Bachelor (360) 870-8741

POW = All Rockhounds Pow Wow Larry Vess [vessel3755@gmail.com](mailto:vessel3755@gmail.com) or (253)473-3908

Keep updated on <http://www.mineralcouncil.zoho.com> Land management changes, and roads close regularly. There is a area on web page with tool category in pictures and names of tools.

Always have proper cloths and gear for conditions. Be prepared with safety, first aid, food and drink.

A week before trips I (Ed Lehman) will have a pdf file with map and info for that trip I can send you on request. I will do the same for trip host.

Try to be at the meeting site 30 minutes before trip time for details and instructions with a full tank of gas.

Use code of ethics, keep our lands open to rockhounding.

To make a laminated stone I spread the scraps out on my bench. Look through the scraps and find ones that together will make an interesting stone. It is a good idea to select stones that are similar in Mohs hardness. If you use a mixture of soft and hard stones this will make the cabochon forming process more difficult. The pieces you use should be trimmed or ground down to uniform shape. Once I decide on the pieces I am going to use and the pattern I will make I grind the two sides that will be next to the other pieces smooth. This is can be done on a flat wheel on the end of your cabbing machine or on the side of a silicon carbide wheel. If you use a silicon carbide wheel be careful of heat buildup if you do not wet the side of the wheel. Make sure the sides of adjacent pieces are smooth and when put next to each other do not have any gaps.

After I have my stones ready, I mix some Epoxy 330. This is a two-part epoxy that, when it dries, forms a water clear bond. The epoxy is spread liberally on the sides of the stones that are to be glued together. Do not worry about applying to much epoxy as the excess will grind off when the stone is formed. A small light clamp can be used to hold the pieces together until they dry. Once epoxied, set the stone aside until the next day to allow the epoxy to cure completely

Once the epoxy has properly cured you can mark the stone and cut it into a cabochon. When working with the stone use a light touch and take your time. Rushing the cabochon cutting process can result in sections of the stone braking off. Once the top of the cabochon is finished you can flatten and smooth the back of the stone on a flat disk on the end of your cabbing machine or on the side of a silicon carbide wheel. Again, be careful of heat buildup on the silicon carbide wheel.

When the stone is used in a jewelry piece it is a good idea to set it in a strong bezel setting to best protect the stone.

This is the most basic of laminated stones. As you refine this technique you can advance to more complex designs utilizing multiple laminated pieces to form a variety of designs such as chevrons shields, herringbone or whatever your imagination can come up with. Any of our club members that have questions or want help in this technique feel free to contact me at

Jimrocks@recycledhistory.com.

Source: The Panorama Prospector July 2020

From Yakima Rock and Mineral Club News, 08/20

### **Marlekor or Imatra Stones** by Lawrence H. Skelton, Geologist

Imatra stones, which owe their name to the Imatra cascade on the Vuoska River in Finland, are unique concretions which exhibit bizarre shapes. They inevitably occur within glacially deposited sediments including marl, loess, and clay deposits. Depending on location, the name varies: nackebrod in Sweden, fairy stones (Scotland), lossmannchen, losskindel, or losspuppen (Germany) and mud babies or clay dogs in Connecticut. A name often found in geology texts is marlekor stones, a Swedish term meaning "marl cows."

Marlekor were first noted in the United States in 1670 in clay beds along the Kennebunk River in Maine. John Winthrop, Jr. then Governor of the Connecticut Colony and elected Fellow of the Royal Society described what may be the Maine marlekor and sent specimens to Lord William Brereton in England.

A concretion as defined in the AGI Dictionary of Geological Terms is: "A nodular or irregular concentration of certain authigenic [generated on the spot] constituents of sedimentary rocks; developed by the localized deposition of material from solution, generally about a central nucleus. Harder than the enclosing rock." Marlekor seem to differ from the definition in that they generally lack a central nucleus, a finding first reported by Raphael Liesegang, a German colloid chemist. However, marlekor formed around fish remains have been found in glacially deposited clays in Greenland and Norway and the late W. C. Palmer, an amateur mineralogist of Milford, Connecticut told the author that marlekor collected from the Connecticut River Valley occasionally have organic particles in their centers.

Chemical analyses of Connecticut River Valley marlekor show them to range from 42% to 57% calcium carbonate (calcite), figures which correspond to earlier German analyses which ranged from 40% to 66% calcite. These figures agree with findings of W. A. Tarr and W. H. Twenhofel that calcite is the chief material composing those concretions found in shale, claystone, loess and sandstone. The remainder of the concretion consists of silt and clay or sand particles cemented by the calcite.

Marlekor are found throughout the world; in North America in addition to the Connecticut River Valley, they occur in selected clay pits in northern New Jersey, along the shores of the Harricane River at Abitibi, Quebec, along the Skykomish River, Washington and on the south shores of Lake Superior. They are said to occur in some location in Nebraska although this has not been confirmed. In Asia, marlekor have been reported in loess deposits in China and in glacial lake sediments along the Chukotka River in northeastern Siberia. In Europe, they occur in glacial polar sea clays in harbors of Greenland and Norway.

Interestingly, these marlekor contain an organic core, remains of the fish Mallotus. Marlekor occur at several sites in Argentina: Pleistocene age concretions are found at Lago Ghio in Patagonia and in the Caluhaqui Valley in Salta, northwestern Argentina where they occur in clays deposited in intermontane lakes. The clays probably were formed by mountain glaciers abrading bedrock.

An interesting and unusual marlekor-bearing site is in northwestern San Luis province in west-central Argentina. As elsewhere in the world, the marlekor concretions are in glacio-lacustrine clay and silt beds (Pullero member of the Bajo de Veliz Formation) but in this location, the beds are of Permian (Samarkian) age, about 282 million to 269 million years old, a time range confirmed by fossil pollen and spore analysis. (Strata of the same age are present in Kansas: the Wellington and Ninnes-

#### **Attention: All Newsletter Subscribers**

**If you, or someone you know should be receiving this newsletter electronically and are not, please contact Bob Pattie or myself (Glenn Morita).**

**We are trying to keep our mailing list current and want to make sure that everyone who wants an electronic version of the newsletter gets one.**

## Local Area Shows for 2020/21

October 2020 3rd 9am - 5pm	Idaho Falls Gem And Mineral Society	10th Annual show	Bonneville Co. Fairgrounds South of Sandy Downs Racetrack Idaho Falls, ID
November 2020 14th 9am - 5pm 15th 10am - 5pm	Maplewood Rock and Gem Club	Annual Fall Show	Maplewood Rock and Gem Clubhouse 8802 196th ST SW Edmonds WA
December 2020 5th 9am - 5pm 6th 10am - 5pm	Maplewood Rock and Gem Club	9th Annual Winter Bazaar	Maplewood Rock and Gem Clubhouse 8802 196th ST SW Edmonds WA
April 2021 23rd 10am - 4pm 24th 10am - 5pm 25th 10am - 4pm	Yakima Rock & Mineral Club	59th Parade of Gems Adults - \$6 \$5 w/coupon Students - \$2 K - 12 years free w/ paying adult	Central Washington State Fair Ground Modern Living Building 1301 South Fair Avenue Yakima ,WA 98901

cah Formations in Sedgwick County being local examples. The Permian sea was shrinking locally (as shown by the presence of the Hutchinson Salt and red beds of south-central Kansas) because of continental glaciation in southern Gondwana (which included present South America.) Marlekor have been reported also in India (another site for Permian glaciers) and in loess deposits in China.

The German-language names (above) indicate that they occur in Germany. Marlekor may be found in the glacial clay deposits along the Rakaia River on the South Island of New Zealand. Indeed, they may be expected to occur in any glacier-sourced, freshwater deposited clay or silt.

How are these oddly-shaped concretions formed? A vast majority of marlekor are cemented by crystallization of calcite ( $\text{CaCO}_3$ ) but a few are cemented by oxides of iron, aluminum or manganese. The calcite originates in glacial debris gathered from bed-rock scoured by moving ice. The marlekor concretions are distinctive according to their locality. They are concentrated in random varves (seasonal layers) and W.A. Tarr considered that varves deposited in warmer weather (summer) would contain a greater abundance of concretions than their winter counterparts. Cold winter water holds greater amounts of carbon dioxide ( $\text{CO}_2$ ) than warmer water. When summer arrived, the warmer waters lost  $\text{CO}_2$  which, reacting with calcium, caused precipitation of the calcite. In summer, the upper layers of water reach the saturation point of calcite and crystallization and concretion formation takes place in the shallow upper layers where silt and sand particles of sediment are coarser. Quirke compared contents in the zone of concretion formation to "slip," the fluid clay used by ceramicists. That would explain the sometimes flowing shapes of the marlekor. Evidence for shallow water is present in the form of ripple marks where marlekor often are concentrated.

During winter, the smallest suspended particles settle out and form a fine-grained varve which seals the summer layer. This process continues annually and provides a method of dating such lake sediments by counting the seasonal varves. Whether concretions form depends on water temperature and  $\text{CO}_2$  concentration. Since weather is not a constant, marlekor presence is not confined to regular warm-weather varves but is random in vertical extent. Dissolved calcite is carried by groundwater through the coarser sediments. The flow is not constant but waxes and wanes which explains the concentric forms of many marlekor. Since the porous summer varves sit on impervious winter sediments, the concretions are flat on the bottom.

Depending on the distance between adjacent concretions and the

concentration of dissolved calcite in the groundwater, the concretions may grow toward each other and coalesce making ovals or dumbbell shapes or forms with various projections. Any projections are usually in the same plane as the rest of the concretion although occasionally, "warts" are formed on the upper surface but remain within the surrounding sediment. Since the concretions form in each year's top layer, they are contemporaneous with the forming of that layer and stratification lines continue from the surrounding sediment through the concretion which forms in the more porous spots.

The similar isolated concretions occurring in loess form in a similar manner. Loess is non-stratified, formed principally of silt-sized particles and may occur in quite thick beds. Groundwater moving downward from the surface toward the water table, becomes saturated with  $\text{CaCO}_3$  from the silt particles. As it passes thru more porous zones within the loess, the calcite precipitates and cements loess particles together into rounded or very irregularly shaped concretions. The descending water, less some calcite content, continues downward to the water table. Such concretions are referred to in China as "stone ginger" (from the shape of a ginger root) in and as "muñequitas de tosca" or "tosquillas" in Argentina respectively meaning "clumsy little dolls" or "little clumsies."

Concretions in general are fascinating artifacts of nature. Marlekor are in many aspects the most intriguing of all and have interested people of all callings. The Russian composer, Peter Tchaikovsky, kept a handful on top of his desk. Who knows what chords were inspired by his viewing of them?

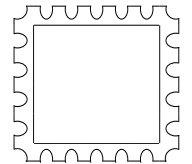
#### Recommended reading

- Bassler, R. L., 1935. "Concretions - Freaks in Stone" in Smithsonian Report for 1935, pp. 321 - 326.
- Quirke, T. T., 1917. Espanola District, Ontario: PhD dissertation, University of Chicago, reprinted by Canadian Department of Mines, Geological Survey, Memoir 102.
- Sheldon, J. M. A., 1900. Concretions from the Champlain Clay of the Connecticut Valley: Boston, The University Press, John Wilson & Sons.
- Tarr, W. A., 1935. "Concretions in the Champlain Valley Formation of the Connecticut River Valley": Geological Society of America, Bulletin Vol. 46, pp. 1493 - 1534.
- Twenhofel, W. H., 1932. Treatise on Sedimentation: Baltimore, Williams & Wilkins Company, 926p.

From The Tumbler, 08/20, via Rockhound Rambling, 4/20; from Quarry Quips, 12/10

Westside Board Meeting  
Tentatively 10/20/20  
7:30pm  
**Via Skype**

COUNCIL REPORTER, Monthly publication of The  
Washington State Mineral Council



WASHINGTON STATE MINERAL COUNCIL  
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