



# THE CMS TUMBLER

**May  
2020**

**Next Meeting:  
Canceled**

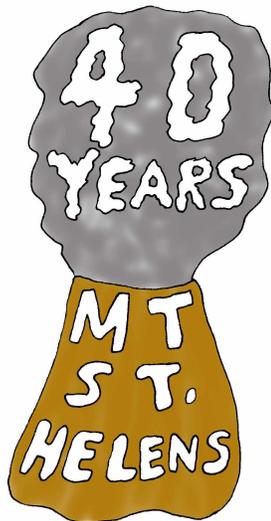
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This month remember  
to wish a

Happy Birthday to

Brian Bayer on May 2

John Black on May 4

Hollis Diamond on May 6

Katy Stevenson on May 7

Dan Pederson on May 8

Kelly Hance on May 10

Isaiah Fu on May 11

Alex Danneman on May 12

Patricia Morgan on May 16

Jennifer Russell on May 16

Faye Lengenfelder on May 18

Jane Shao on May 18

Lauri Miles on May 23

Ewen Cameron on May 27

and also remember

to wish a

Happy Anniversary to

Lauren & Mr. Walker on May 5 (3 years)

Timothy & Jane Shao on May 18

Jordan & Mrs. Cameron on May 27 (7 years)

Robin Santos & Shelley Opel on May 28 (22 years)

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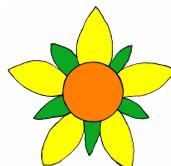
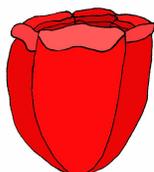
Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

The monthly newsletter of the Cascade Mineralogical Society, Inc., Kent, Washington

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**2020 Elected Officers**

<i>Title</i>	<i>Name</i>	<i>Phone</i>	<i>E-mail</i>
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Federation Representative	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
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Shop Operations	Bob Pattie	425-226-3154	bobpattie@comcast.net
Show & Tell	Michael Blanton	425-271-8757	mblanton41@hotmail.com
Social Media	Kat Koch	425-765-5408	president@cascademineralogicalsociety.org
Webmaster	Mark Hohn	253-332-3736	showchair@cascademineralogicalsociety.org

2020 CMS Dues are \$25 per year per family

Pay online, by mail, or at our meetings.

Mailing Address: Charles Benedict, 25838 W Lk Wilderness Dr SE, Maple Valley WA 98038

You can pay your dues via credit card!! We now accept all cards through our website or at the meeting.

You can renew your membership or enroll as a new member and pay your dues all in one shot online. You will find it under the "Membership" tab on our website. <http://www.cascademineralogicalsociety.org>

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the American Federation of Mineralogical Societies; the Northwest Federation of Mineralogical Societies; and the Washington State Mineral Council.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton in person or by telephone at (425) 271 -8757 or by computer at [mblanton41@hotmail.com](mailto:mblanton41@hotmail.com)

To get information to the Tumbler via the Internet send it to [greenrockdraggin@yahoo.com](mailto:greenrockdraggin@yahoo.com) Please put Tumbler and subject in the Subject Line. The deadline is the 20th of each month.

Sun	Mon	Tue	Wed	Thur	Fri	Sat
<b>No Meeting This Month!</b>					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

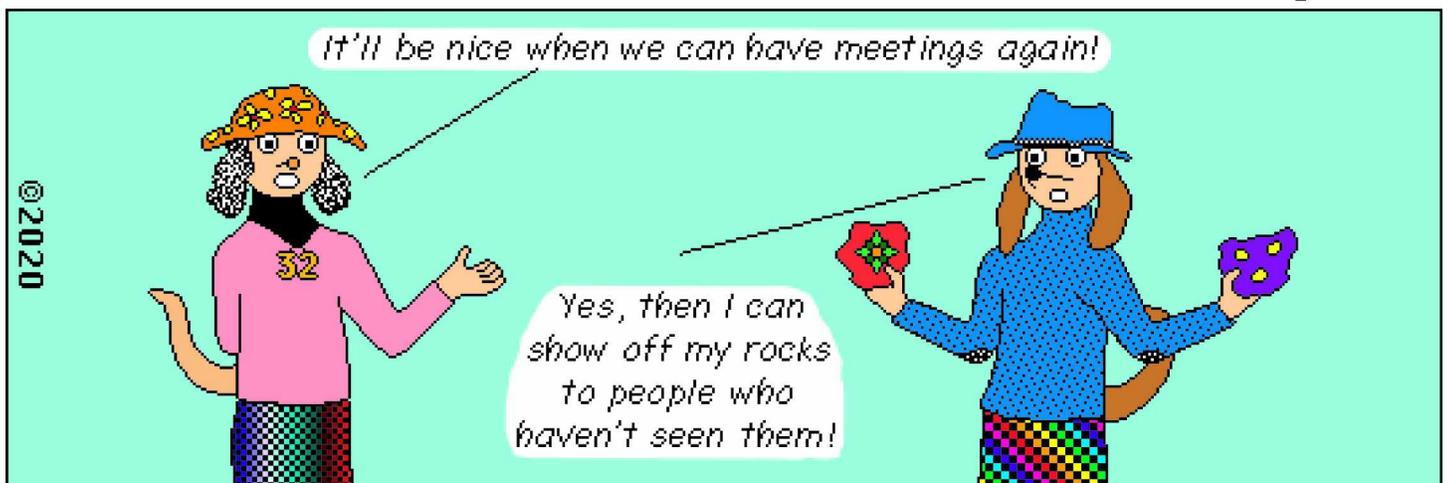
CMS Show Committee Meeting:...Canceled  
 CMS Board Meeting:.....Canceled  
 CMS General Meeting:.....Canceled

Lapidary Class Hours:.....By appointment, call to set a time & day for your lesson (425) 226-3154  
 Lapidary Shop Hours:.....Most Tuesdays..... 2:00 pm to 5:00 p, call ahead (425) 226-3154  
 Lapidary Shop Hours:.....3rd Saturday..... by appointment only (call a few days ahead to set time)

More Field Trip info can be found on Page 11  
 More Show info can be found on Page 12

**Mr. and Mrs. Rockhound**

by **KAM**



## CMS Board Meeting Minutes April 6, 2020

Meeting canceled.

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## CMS General Meeting Minutes April 9, 2020

Meeting canceled.

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### From the Top of the Rock Pile by Kat Koch, 2020 CMS President

Mike and I had a great road trip to the Tucson Gem Show, San Antonio, Texas, Buckhorn, New Mexico and an unexpected stop in Quartzsite. There were still many vendors there until the end of April.

During our trip I found out my sister had a stroke so Mike dropped me off near Palm Springs to be with my sister and he then headed home.

Shortly after Mike returned home my car was stolen and our house broken into. All our treasures from our road trip were still inside my car.

Luckily they didn't steal much from inside our house. Mike was home and once they entered our kitchen and dining area they must have heard someone was inside the house and awake. They must have been spooked and immediately left with my car.

I have been home since April 11<sup>th</sup>. Ever since returning home I have been dealing with my car and home owners claims with my insurance company.

I am sad to say there will be no Thursday general club meeting or Board meeting in May. I am very hopeful that we will see everyone in June.

The Board has been discussing what to do regarding our gem show. If we do proceed forward with it what changes do we need to make? Do we need to provide hand sanitizer and masks for all visitors? Are people going to want to come out to a show where there are a large group of people? Should we have fewer booth space and/or lower the price of booth space? This would substantially affect our bottom line. Are we going to have enough volunteers to run the show? If we proceed with our show, we must do everything to make sure our vendors make money. Are people going to have discretionary money to spend on rocks and minerals? If we do cancel it we will have to absorb the expenses already incurred. Such a big decision.

Looking forward to seeing everyone in June. We all need some "rock talk" with our club friends!



### Club Show News by Kat Koch

We have officially canceled our Gem Show in September. I have refunded all the booth fees paid.

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### Hawaiian Olivine by Dean Sakaba

Olivine is the name of a group of rock-forming magnesium and iron silicate minerals that, in Hawaii, are found in basalt. Olivine is usually greenish in color, with a composition ranging from  $Mg_2SiO_4$  to  $Fe_2SiO_4$ . It usually crystallizes in the presence of plagioclase and pyroxene to form in gabbro or basalt.

Olivine has a very high crystallization temperature compared to other minerals. That makes it just about the first mineral to crystallize from magma. So during the slow cooling of a magma, olivine crystals can form and settle to the bottom of the magma chamber because of their relatively high density. The concentrated accumulation of olivine can result in the formation of olivine-rich rocks such as dunite in the lower parts of a magma chamber.

Olivine is one of the first minerals to be altered by weathering. Because it is so easily weathered, olivine is not common in sedimentary rocks and is only abundant in sand or sediment when the deposit is very close to the source. Such is the case at Papakolea Beach, where green olivine sand is mixed in white coral and black basalt.

Olivine has been identified in a large number of stony and stony-iron meteorites. The meteorites are thought to have originated from the mantle of a rocky planet that used to occupy an orbit between Mars and Jupiter—or they might be from an asteroid that was large enough to have developed a differentiated internal structure consisting of a rock mantle and a metallic core.

Pallasites are thought to represent the part of an asteroid or planet that was near the mantle/core boundary where rocky materials of the mantle were mixed with the metallic materials of the core. Pallasites usually have distinct crystals of olivine (usually fayalite) surrounded by nickel/iron matrix.

via The Mineral Newsletter, 1/20; from Hui Pōhaku 'O Hawai'i, 8/17

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### Young Richard's Almanac by Dick Morgan

No matter how much consensus and power of a lie for some to get their way, it is still a lie.

## Everything You Wanted to Know About Citrine But Were Afraid to Ask by Kat Koch

Natural Citrine (a type of quartz) is rare and is much lighter in hue than heat treated material. Natural Citrine color ranges from light yellow to orange-yellow whereas almost all heat treated material range in color from dark orange-brown to reddish-brown. Nearly all heat treated material has a reddish tint whereas natural Citrine does not. Most Citrine is made by heat treating Amethyst or Smoky Quartz from certain locales. Natural light colored Citrine is often called Lemon Quartz.

In some Amethyst deposits you will find natural Citrine. Some Natural Citrine has a "smoky" hue to it and can be border line between Citrine and Amethyst and is then called Ametrine. This occurs from natural heating having turned the Amethyst to Citrine.

Some Natural Citrine that also has a "smoky" hue to it and can be border line between Citrine and Smoky Quartz. This combination can also be banded. I have samples in my collection of a gradual blend from Lemon Citrine to Smoky Quartz and a the banded type.



Quartz is the most common gemstone found on earth. Some people feel It has a trigonal crystal system. There are many types of gemstones that are formed from quartz. Just a few of them are Clear Quartz, Citrine, Amethyst, Ametrine, Smoky Quartz, Rose Quartz, Tiger Eye, Chalcedony, Rutilated Quartz, Blue Quartz (never clear), Carnelian and Prasiolite.

Interesting Quartz Lore: Roman naturalist and Naval Commander of the early Roman Empire, Pliny the Elder, believed quartz to be water, permanently frozen after great lengths of time. (The word "crystal" comes from the Greek word for "ice".) He supported this idea by saying that quartz is found near the glaciers in the Alps, NOT on volcanic mountains, and that large quartz crystals were fashioned into spheres to cool the hands. This idea persisted until at least the 17th century. Pliny also knew of the ability of quartz to split light into a spectrum. He wrote in the first century a.d., they use to focus crystal heat from the Sun to cauterize wounds.

Metaphysical Properties of Quartz: Quartz is the most powerful healing stone of the mineral kingdom, able to work on any condition. Clear Quartz is known as the stone of power and amplifies any energy or intention. Clear Quartz protects against negativity, attunes to your higher self, and relieves pain.

American Indians on Using Quartz Crystals: American Indian shamans placed quartz crystals over their eyes to help them become more clairvoyant.

Sources: minerals.net, geology.net, gemhunters.com.au, several site on wikipedia.org, invoguejewelry.blogspot.com, llewellyn.com

## Geology Quote

"It is the natural and legitimate ambition of a properly constituted geologist to see a glacier, witness an eruption and feel an earthquake..." - USGS Geologist Grove Karl (G.K.) Gilbert

from USGS Twitter feed, 4/10/20

## Old Plank Road Imperial Sand Dunes, California by Kat Koch

The "Old Plank Road" was built in 1915 shortly after Los Angeles won the right to be the end of the transcontinental railroad. San Diego civic leaders proposed the Plank Road with the thinking that it would ensure their city would become the hub for Southern California's road network instead of Los Angeles.

San Diego's biggest promoter was businessman and road builder "Colonel" Ed Fletcher who accepted a challenge from the Los Angeles Examiner newspaper in October 1912 to run a road race to determine the best route between Southern California and . A reporter with the paper was given a 24-hour head start in Los Angeles and Fletcher would proceed from San Diego. Fletcher elected to traverse the constantly shifting sand dunes using a team of horses to pull his automobile through the sand, and won the race in a seemingly impossible 19.5 hours.



Encouraged by the success of the race and with the backing of local newspapers, Fletcher raised the money to pay for 13,000 planks shipped from San Diego to . The first planks were laid on February 14, 1915, with the help of both volunteers and paid labor. The roadbed consisted of two parallel plank tracks, each 25 inches, spiked to wooden crosspieces laid underneath. The total length of the Plank Road was 6.5 miles. The is located in the extreme lower south east of California and west side of the dunes. The road started at Grey's Well Station, CA and end at Ramada, AZ. Present day cities are Winterhaven, CA and the junction for Yuma, AZ. The road was completed in a little under two months. The boards were oiled to prevent wear. Regular use over the road for several months had not shown any sign of wear.

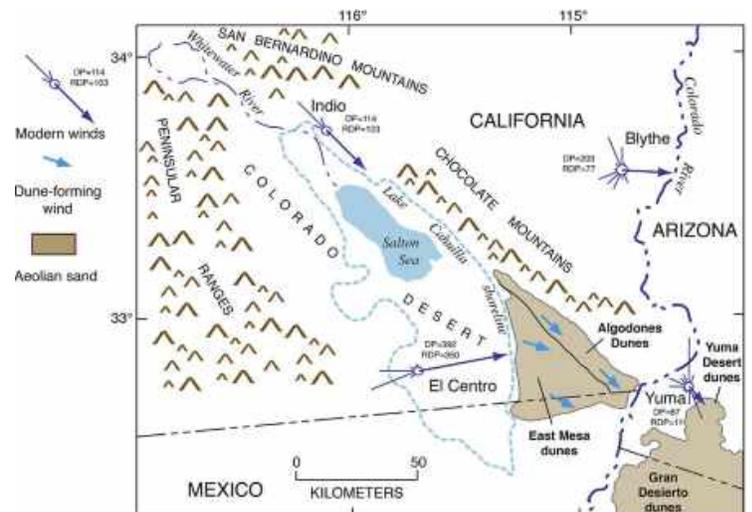
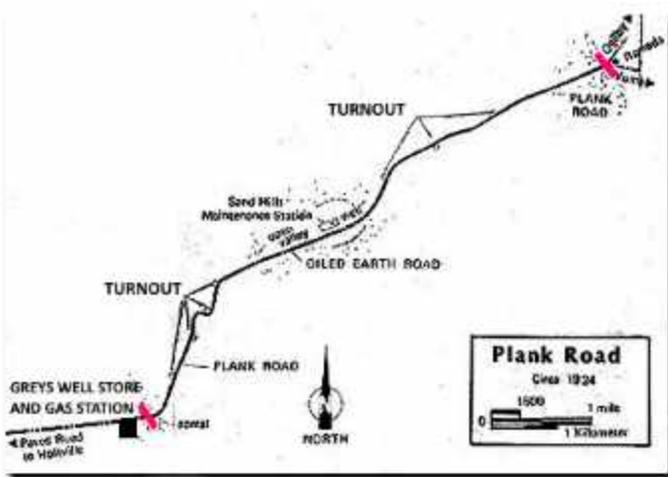
It was considered a success even though it needed constant maintenance to keep it clear of sand. It's estimated 3,000 cars a week traveled the road. Soon after the plank road was completed the California State Highway Commission took authority for the road and upgraded the route to an 8-foot wide wood roadbed. Turnouts were added about a mile apart in order to let the traffic flow in both directions. When sand covered the road, a horse team was brought in and the sections were lifted and dusted off and laid back down and traffic resumed. Portions of the plank road were moved by teams of mules when the shifting sand made such corrections necessary.

The dunes were formed by Lake Cahuilla which was possibly one of the largest lakes of the past. It was a huge freshwater body covering over 2,000 square miles.

No one knows for sure how long ancient Lake Cahuilla was part of the Southern California landscape. Geologists date the ancient shorelines to as early as 26,000 years ago. At it's largest it was 114 miles long, 33 miles wide and 315 feet deep. Archaeologists have evidence that a vibrant culture of humans living along the lake as far back as 11,500 BCE. A few Paleo-indian tools (large spear or dart points from the first people known to have been in North America by 11,500-11,000 BCE) have been found at archeology sites associated with Lake Cahuilla. Archaeologists say the lake may have come and gone, but it has always been a part of the landscape. This once huge lake left behind a huge geological sand dune formation.

Algodones Dunes refers to the entire geological feature encompassing more than 26,000 acres whereas Imperial Sand Dunes is the small portion managed by the BLM. The present approximate size of the Algodones Dunes is 45 miles long, 6 miles wide.

Sources: [ivpressonline.com/life/desertmuseum](http://ivpressonline.com/life/desertmuseum), several articles and pictures from [wikipedia.org](http://wikipedia.org), [desertusa.com](http://desertusa.com), [dagerousroads.org](http://dagerousroads.org), Article from "The Sun" newspaper, Australia, 14 Feb 1916, [echosofthesouthwest.com](http://echosofthesouthwest.com), University of Redlands, USGS.



### Mt. St. Helens Tidbits

Mt. St. Helens was named in 1792 for Baron St. Helens, who was the British ambassador to Spain.

In 1975 geologists for the U.S. Geological Survey estimated that Mt. St. Helens would erupt before the turn of the century.

The largest terrestrial landslide in recorded history dropped the summit of Mt. St. Helens by 1,300 feet and allowed the volcanic blast to happen. The blast blew down and scorched 230 square miles of forest in about three minutes.

## Washington Compared to California by Kat Koch

While quarantined in the desert hills near Palm Springs for a little over 7 weeks I was often times bored. I was helping my sister recover her speech after a stroke but still had a lot of spare time. So I looked up some interesting rock facts between Washington and California.

The following information is from Gator Girl Rocks <http://www.gatorgirlrocks.com>

### Washington State Rock: None

#### Suggestion for state rock:

According to the USGS Miocene volcanic rocks covers 14% of Washington State. Dark-gray to black, dense aphanitic

basalt flows; commonly columnar jointed, less commonly irregularly and platy jointed; some flows vesicular, grading to scoriaceous; includes minor pillow lava, palagonite beds, and interbedded soil profiles and sedimentary beds; contains diatomite beds locally. Maximum thickness in south-central Washington may be in excess of 10,000 feet; much thinner in western Washington, where flows are mostly associated with marine sedimentary rocks. Includes acidic and intermediate volcanic rocks in northern Cascade Mountains.

Next most common is Quaternary nonmarine deposits which cover 13% of the state. Periglacial eolian deposits. Light-brown, well-sorted and bedded clayey sandstone and sandy clay with interbeds of volcanic ash and calcareous cemented gravels; some water-laid material locally. Probably early Pleistocene.



### State Gem: Petrified Wood (1975)

Washington designated petrified wood as its official state gemstone in 1975. Most of the petrified wood in Washington grew during the Miocene Epoch, some 12 to 5 million years ago, when the state was swampy and mild, and played host to vast forests of cypress, oak, elm, and ginkgo trees. Although much petrified wood is buried in river sediments and is thus found in mudstone or sandstone, the trees in ancient Washington grew next to large volcanoes that spewed tons of ash into the air when they erupted. This volcanic ash settled and buried the trees in place; sometimes they were even engulfed by lava flows. Layers of logs were preserved with each new lava flow, and as the layers grew deeper, many of the logs became waterlogged and lay protected in deep water. Over time, water continued to seep through the lava and permeate the wood with silica. Eventually, the wood fiber was completely replaced by silica, thus petrifying many logs. The petrified wood is perfect in form and detail to the original wood. The major petrified wood-bearing unit in Washington is the Columbia Plateau basalts. In Washington, petrified wood can be found in both eastern Washington and western Washington, which are very, very different. The best place to see petrified wood in Washington is the Ginkgo Petrified Forest State Park in Vantage.

### California State Rock: Serpentine (1965)

California was the first state to designate an official state rock. In 1965, California designated Serpentine as the official state rock. Serpentine is apple-green to black in color and is often mottled with light and dark colored areas. It has a shiny or wax-like appearance and slightly soapy feel. Serpentine usually is fine-grained and compact but may be granular, platy, or fibrous. It occurs in central and northern California – in the Coast Ranges, Klamath Mountains, and Sierra Nevada foothills. Serpentine primarily is composed of one or more of the three magnesium silicate minerals: lizardite, chrysotile, and antigorite. Serpentine is metamorphic and/or magnesium-rich igneous rock, most commonly peridotite, from the earth's mantle. In 2010, a few California legislators attempted to pass legislation to remove serpentine as the official state rock because the rock (which occurs in 42 of California's 58 counties) contains very small amounts of naturally occurring asbestos – much like many other natural resources. The bill (SB 624) passed the state senate, but then failed to pass the state house.



### State Gemstone: Benitoite (1985)

California designated benitoite as the official state gemstone in 1985. Sometimes called the 'blue diamond,' benitoite was named in 1907 after the river (San Benito River), county, and nearby mountain range where it was found. "Benito" is a Spanish form of benedictus, meaning blessed. The barium-titanium silicate gem is extremely rare and ranges in color from a light transparent blue to dark, vivid sapphire blue, and occasionally it is found in a violet shade. Gem quality benitoite is found only in San Benito County, California. The crystals form as well-defined triangles as seen in this specimen.



**State Mineral: None****Suggestion for state mineral:**

Quartz and calcite are abundant minerals in Washington State. Calcite is a very common mineral that appears in almost every color possible. Calcite is made up of calcium carbonate and is very brittle. Calcite sometimes contains iron, magnesium and zinc. Quartz is a very common mineral as well and also occurs in many colors.

**State Fossil: Columbian Mammoth (1998)**

Washington designated the Columbian Mammoth (*Mammuthus columbi*) as its official state fossil in 1998. The Columbian mammoth, inhabited the state during the Pleistocene Epoch, 1.6 million to 10,000 years ago, when great sheets of ice covered much of North America. The Columbian mammoth was huge, standing thirteen feet tall at the shoulder and weighing as much as ten tons. Fossils of the Columbian mammoth have been found on the Olympic Peninsula (the western portion of the state) and other parts of the state. There are over 40 documented mammoth discoveries in the state. The most common mammoth fossils found in Washington are the large molar teeth, which are composed of a series of ridged plates, and are sometimes described as looking like a stack of fig newton cookies. These teeth helped the mammoth chew grasses and other tough vegetation - this large member of the elephant family may have eaten as much as 700 pounds of vegetation a day.

**State Prehistoric Artifact: None**

- **Suggestion for state prehistoric artifact:**
- **Ozette Archaeological Site**

In the winter of 1969-1970 a storm caused the bank at the Ozette location to slump, exposing hundreds of perfectly preserved wooden artifacts! A hiker contacted the Makah Tribe, then the Tribe phoned Washington State University. In April 1970, some two months after the storm, excavation of the Ozette Archaeological Site began.

Makah (The Cape People) oral history told of a "great slide" which buried a portion of Ozette village long ago. Archaeologists in collaboration with the Tribe

**State Mineral: Native Gold (1965)**

California designated native gold as the state mineral in 1965. The accidental discovery of gold in 1848 at Sutter's Mill in Coloma started a bonanza that brought California fame and gave it the title of the "Golden State." The Gold Rush of 1849 (which was not the first gold rush in America) and the subsequent influx of settlers led to California becoming the 31st state in 1850. In the four years following the discovery of gold by James Marshall in January of 1848, California's population swelled from 14,000 to 250,000 people. Miners came from all over the world and extracted 28,280,711 fine ounces of gold from 1850 – 1859 that would be worth over ten billion dollars today. There are thousands of historic gold mines throughout California. Although production is much lower, present day prospectors still may pan for gold in California's streams. Gold is used mainly as currency, jewelry, in scientific instruments, and in dental applications.

**State Fossil: Saber-Tooth Cat (1973)**

California designated the saber-tooth cat (*Smilodon californicus*) as the official state fossil in 1973. The carnivorous saber-tooth cats (extinct members of the cat family Felidae) flourished throughout North America from the late Eocene and early Oligocene (40 to 35 million years ago) until the close of the Pleistocene about 11,000 years ago. In California, the cat's fossilized remains are most abundant at the La Brea Tar Pits (late Pleistocene) in Los Angeles where more than 2,500 fossilized specimens have been found. Fossil evidence indicates that this ice age member of the cat family with 8-inch upper canine teeth was somewhat shorter than a modern lion, but weighed more.

**State Prehistoric Artifact: Chipped Stone Bear (1991)**

California also has an official state prehistoric artifact, the chipped stone bear. Discovered at an archaeological dig site in San Diego County in 1985, this small stone object measures about 2 1/2 by 1 1/2 inches and resembles a walking bear. Fashioned from volcanic rock by one of California's earliest inhabitants some 7-8,000 years ago, the stone artifact is thought to have been made for religious use. The Legislature named the chipped stone bear a state symbol in 1991 making California the first state to designate an official State Prehistoric Artifact.

proved this oral history correct. Radiocarbon dates demonstrated that a slide some  $500 \pm 50$  years BP (before present) buried six longhouses and their respective contents, locking the pre-contact wooden and wood-based artifacts in a shroud of mud.

The 11-year excavation produced over 55,000 artifacts, which the Tribe kept on the reservation.

Consequently, the Makah Cultural & Research Center

came about from the Tribe's desire to curate and interpret this unique collection.

*Sources: Gator Girl Rocks Website – Use permitted only if cut and paste with out condensing, editing or adapting. Photos are from public free use sources. Wikipedia.org, University of Washington, Washington State University and USGS.*



## Aluminum: As An Element, A Metal, And In Minerals And Rocks by Andrew Hoekstra

Aluminum is the most abundant metallic element in the earth's crust (twice as common as iron), and the third most common element in the crust (after oxygen and silicon). Yet aluminum was more valuable than gold not much more than one hundred years ago. The French emperor Napoleon the 3rd is said to have reserved aluminum cutlery for himself and special guests, while the rest had to be content with gold; the French treasury displayed ingots of aluminum next to the crown jewels. In 1884 the Washington Monument was capped with a 9" pyramid of aluminum, the largest casting of the metal ever made at that time, which was displayed at Tiffany's jewelry shop before it was placed on top. Aluminum was chosen for its conductivity and because it wouldn't stain. Years later, after lightning melted a bit of the tip, a crown of small lightning rods was attached to the pyramid.

Metallic aluminum is almost never found in nature. Minerals containing aluminum include the feldspars, kaolinite, kyanite and andalusite (aluminosilicates), the zeolites, turquoise, many garnets, jadeite, spinel, beryl, topaz, staurolite, epidote, zoesite, muscovite, spodumene, and lepidolite. Because aluminum readily forms an oxide, it easily becomes bound into rocks, while less reactive elements sink to the earth's core. Aluminum is light—less dense—so it should be no surprise that continental rocks, which have risen to the earth's surface, are richer in aluminum than the oceanic crust or the underlying mantle (which is not molten magma—and continents don't "float" on it).

Aluminum metal was precious and rare; until methods were invented to extract it from rocks, where it exists in compounds, tightly bonded to other elements. Aluminum compounds like alum (sulfate salts of aluminum) have been in use since ancient times, but the metal was first isolated in the nineteenth century. Only in the 1880's were commercial production methods developed to produce aluminum metal from ore (using the Hall-Heroult Process and the Bayer Process). Aluminum metal and its alloys are light, non-reactive and corrosion-resistant, non-toxic, conductive (thermally and electrically), splinter-proof, and non-magnetic, and with its decreasing cost the metal has become ubiquitous, with many uses both familiar (foil, cans, pots and pans, furniture, and airplanes) and less familiar (capacitors, transformers, and other electrical/electronic equipment).

Aluminum is present in many common rock-forming silicate minerals, including the feldspars. But aluminum is commercially extracted from the minerals gibbsite, boehmite, and diaspore found in the ore rock bauxite. Bauxite is a fairly common and widespread rock, with large reserves in Guinea, Australia, Vietnam, Brazil and Jamaica. Australia produces the most alumina (aluminum oxide) from ore, and China produces the most aluminum metal. The major expense of producing aluminum is the electricity needed for electrolysis to extract the metal from molten aluminum salt (alumina). Aluminum smelters are often located near cheap sources of power, such as hydropower, even if far from the source of ore. Recycling of aluminum is profitable because it uses far less energy (about 95% less) than producing metal from ore. There was a factory in Carson, CA (now closed), where aluminum cans went in one end and rolls of aluminum sheet came out its other end – the cans were stripped of their paint in a rotary kiln, the metal melted, and then extruded as coils of new sheet.

Aluminum salts also have many varied and important uses. Sulfates of aluminum, like alum, are used in water treatment, hide tanning, textile dyeing, paper manufacture, and baking powder. Aluminum oxide (alumina) is used as an abrasive, in catalysts, and as a drying agent or absorbent. Other aluminum salts are used for these same purposes and in a variety of other manufacturing processes.

via Rockhound Rambling, 4/20; from Delvings, 4/20

## Cab/Cabochon Definition by Duane Flackus & Lilly Oaks

In Geology, a "cab", short for "cabochon", refers to a beveled and polished rock on the topside, resulting in a convex (rounded) form and is typically used for display or in jewelry, usually in an oval shape with a flat reverse side.

from The Clackamette Gem, 4/20

Mount St. Helens has had the most eruptions of volcanoes in the Cascade Range for the past 4,000 years.

The ash cloud from the initial eruption circled the Earth in 15 days.

Names for smoke from the volcano by local tribes include Lawala Clough, Low-We- Lat-Klah, Low-We-Not- Thlat, Loowit, Loo-wit Lat-kla, and Louwala-Clough.

## Young Tumbler News

### Volcano Words by Keith Alan Morgan

Complete the word find. Bring to the general meeting (whenever the next one is) and get \$2 Rock Bucks!

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

Ash  
Basalt  
Caldera  
Cone  
Crater  
Dome

Dormant  
Earthquake  
Eruption  
Extinct  
Fumarole  
Lahar

Lava  
Magma  
Pyroclastic  
Shield  
Tremors  
Volcano

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The youngest glacier on Earth is Crater Glacier which started forming in 1986 in the deep, shaded crater of Mt. St. Helens.

## Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Information from the Washington State Mineral Council webpage (<http://www.mineralcouncil.org>).

May 9 Darrington Rock Club - Cascade River - Meet at Marblemount at 9am left turn - Talc, Listwonite, etc. (small fee) - Bring hard rock tools  
Ed Lehman wsmced@hotmail.com h# (425) 334-6282 c# (425) 760-2786

May 23 Darrington Rock Club - Red Bridge Verlot - Meet at Verlot Ranger Station at 9am - Rainbow Chert, Concretions - Bring light hard rock tools  
Ed Lehman wsmced@hotmail.com h# (425) 334-6282 c# (425) 760-2786

### **CMS May 16th 2020 Field Trip: First Creek (Agate, Crystals, Geodes)** by Roger Danneman

On May 16th 2020, we will be going to First Creek which is east of Cle Elum and part of the Teanaway formation. Meet 9:30 AM in the Cle Elum Safeway parking lot near the gas pumps (exit 84 – 702 W 1st St, Cle Elum), about 1.5 hour drive from Renton. We'll leave there at 9:45, head east on Hwy 970, and park at the First Creek parking area (about 10 miles away – just 1/2 mile north of 97/970 junction).

Group will leave from the First Creek parking lot about 10:10 AM!

Agates, Jasper, Geodes, and Crystal – Bring digging and hard rock tools, buckets, and sturdy shoes. Appropriate clothing for weather, lunch, drinking water and snacks. Bug spray for ticks. This is a 2 mile hike on a logging road with 5 moderate ups and downs and there could still be snow and/or mud on the trail in May. A wagon or jogging cart is handy for carrying tools and material.

Roger Danneman (roger.danneman@gmail.com 425-228-8781 or 425-757-3506 cell).

### **Mt. St. Helens Memories** by Keith Alan Morgan

I have no memories of the blast, as I was asleep.

After the blast the local news seemed to forget that there might be other news in the world as they focused to the exclusion of all else on the disaster that happened and the very little information they had on it repeated ad nauseum until something new came in, which was just added to the repetition.

A cameraman had been in the area blanketed with ash after the blast and after he was rescued his footage of survival, which because of all the ash and cloud cover didn't have a lot to look at, but listening to him talk, not knowing if he would survive, was riveting.

I never paid much attention to wind directions on weather forecasts before this, but when Mt. St. Helens put out a new puff of ash knowing which direction it would blow was suddenly important.

While some areas were buried in ash I only remember a slight dusting of ash where I lived once.

The only time I remember the Emergency Broadcast System being used was later in the summer when Mt. St. Helens eruptions were more like burps, instituted a local use of the system.

My funniest memory was driving past some people who had set up a table next to the road selling containers of ash, and people were buying. It was funny because ash covered all the property next to the road so someone could have just scooped up some ash for free.

The volcanic eruption of May 18, 1980 was the most economically destructive event in the history of the United States prior to the current coronavirus shutdown.

Volcanic mudflows damages 27 bridges, 200 homes, forced 31 ships to remain in port and filled rivers with rock, sand and mud.

The thick ash cloud turned day into night for some communities. Streetlights in Yakima automatically turned on because of it.

The initial ash plume rose 80,000 feet in 15 minutes.

Other eruptions it had that year were on May 25, June 12, July 22, August 7, and October 16–18.

The Mount St. Helens National Volcanic Monument was established in 1982.

Some entrepreneurs melted the ash into a glass-like substance and sold it to facetors and lapidariests.

# No Local Shows

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## Virtual Field Trips

Due to the impact of the COVID-19 virus, our collecting trips are pretty much at a standstill. But travel via the Internet is wide open.

So, for your at-home collecting pleasure, here are some virtual field trips you can take to visit some fabulous museums.

### Smithsonian Museum Of Natural History

<https://naturalhistory.si.edu/visit/virtual-tour>

### David Friend Hall, Yale Peabody Museum of Natural History

<https://www.rockngem.com/uncommon-gems-mineralsshine-in-Virtual-tour/>

### South Dakota School Of Mines & Technology

<https://www.sdsmt.edu/Campus-Life/The-Campus/Virtual-Tour/O-Harra/>

You can also watch a cool video about putting a Mosasaur skeleton together.

And, if a virtual field trip isn't your "thing," remember that field trip you went on several years ago? You were too busy to do anything with what you found, so you bagged or boxed the stuff up and put it in the basement or garage. Now is the perfect time to get that stuff out and go through it. Have a second field trip as you look over each specimen. Make yourself decide what to do with each piece. Perhaps you will discover a really nice specimen! Take a photo of it and share it with your rockhound buddies on the private page of your club's Facebook site.

via AFMS Newsletter, 5/20; from The Strata Data, 4/20

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## Internet Addresses

### Create a Paper Model of a Volcano

<https://pubs.usgs.gov/of/1991/0115a/report.pdf>

from USGS Twitter feed, 4/24/20

### Mount St. Helens National Volcanic Monument

<https://www.usgs.gov/science-support/osqi/yes/national-parks/mount-st-helens-national-volcanic-monument>

### How To Build Your Own Seismograph At Home

[https://www.iris.edu/hq/files/programs/education\\_and\\_outreach/aotm/8/1.SeismographModel-Lahr.pdf](https://www.iris.edu/hq/files/programs/education_and_outreach/aotm/8/1.SeismographModel-Lahr.pdf)

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## The Many Uses of Gold

Of all the minerals mined from the Earth, none is more useful than gold. Its usefulness is derived from a diversity of special properties. Gold conducts electricity, does not tarnish, is very easy to work, can be drawn into wire, can be hammered into thin sheets, alloys with many other metals, can be melted and cast into highly detailed shapes, has a wonderful color and a brilliant luster. Gold is a memorable metal that occupies a special place in the human mind.

Gold has been known since prehistoric times and was one of the first metals to be worked, mainly because it was found as nuggets or as particles in the beds of streams. Such was the demand that by 2000 BC the Egyptians began mining gold. The death mask of Tutankhamen, who died in 1323 BC, contained 100 kg of the metal. The royal graves of ancient South America also contained gold objects.

Today, most of the gold that is newly mined or recycled, is cast into small bars for easy handling, exchange, and storage: gold bullion. The use of gold bars keeps manufacturing costs to a minimum and allowed convenient handling and storage. Many governments, individuals, and institutions hold investments of gold in the convenient form of bullion.

The United States once used a "gold standard" and maintained a stockpile of gold to back every dollar in circulation. Under this gold standard, any person could present paper currency to the government and demand in exchange an equal value of gold. The gold standard was once used by many nations, but it eventually became too cumbersome and is no longer used by any nation.

from The Quarry, 4/20

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