July 2025 corc.rocks@gmail.com

CENTRAL OREGON ROCK COLLECTORS

It's in our name.....It's what we do..... We collect rocks!!!

CORC

The Intricate Beauty of Thundereggs: A Collector's Guide

by Rock Seeker Part 1 of 2

Thundereggs are fascinating nodule-like rocks that appear unassuming on the outside but reveal breathtaking beauty when cut open.
Often looking like rough, grayish or brown spherical rocks, a thunderegg's true value lies in its interior – usually filled with agate, chalcedony, jasper, or even opal in striking patterns.
These formations have captivated rockhounds and mineral collectors for generations, not only for their colorful crystal-filled cores but also for the lore and legend surrounding them.
In this article, we'll explore the geology of thundereggs (and how they differ from geodes), where they are found, their appeal and value to collectors, as well as the historical and cultural significance that makes them legendary.

How Are Thundereggs Formed?

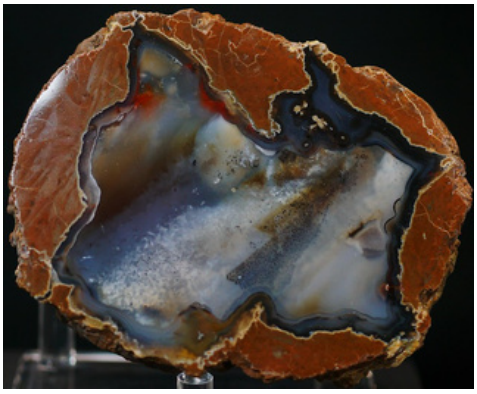
Thundereggs are products of ancient volcanic activity and unique geologic conditions. They form within rhyolitic volcanic ash flows or tuffs, specifically in gas pockets or hollows created as the lava cools.

Here's how a thunderegg comes to life: Silica-rich groundwater percolates through the porous volcanic rock, depositing layers of minerals into the empty cavity. Over time, the silica gels and crystallizes, filling the void with banded chalcedony (microcrystalline quartz) and other minerals.
Initially, a darker matrix of silica may line the cavity, followed by successive inward growth of lighter agate or chalcedony. The result is a solid nodule with a rough, often spherical exterior of hardened lava, and a hidden inner core of colorful cryptocrystalline quartz. Mineral impurities in the silica create the vivid colors and banding – for example, iron can impart reds and oranges, while other trace elements produce blues, yellows, or greens.
In terms of mineral composition, most thundereggs have a core of chalcedony or agate (which are forms of quartz), sometimes intermingled with jasper (an opaque form of quartz) or opal.
It's not uncommon to find sparkling inclusions or pockets as well: some thundereggs contain clear quartz or amethyst crystals, and occasionally minerals like gypsum or calcite can form inside.
The hardness of these interiors is typically around 6.5–7 on the Mohs scale (the hardness of quartz), meaning they are quite tough. Externally, the thunderegg's matrix (the outer rind) is usually the host volcanic rock (rhyolite or a similar siliceous rock), which can be gray, brown, or reddish and much less attractive than the polished interior.

Largest Known Thunderegg

Most thundereggs range from about 5–10 cm (2–4 inches) across – roughly the size of a baseball – but they can be much larger or smaller. In fact, some giants have been found well over a meter across. For instance, Oregon produced a thunderegg weighing 1.75 tons (the largest known), now housed at the Rice Northwest Museum of Rocks and Minerals.

How Old Are Thunder Eggs?



It would be near impossible to say how old any one thundereggs is, without extensive chemical aging techniques. Though to make a thunderegg, is a process which takes millions and millions of years. It is estimated that the thunderegg containing rhyolite lava flows that are found across much of Oregon, the capital for thundereggs, are around 60 million years old. However, other thunderegg sites have been estimated at 10-20 million years old.
Regardless, the time it takes for minerals to accumulate and deposit intricate and beautiful patterns inside of a hollow rock is a very slow one.
To be continued...

Annual CORC Picnic

Come join the fun!!!!

Saturday, July 19, 2025
11:00 AM - 2:00 PM

Lots of food!

Main dish provided by Baldy's!!
We will also provide water.
Bring a side dish or dessert to share.

Raffle:

30 lbs of Polka Dot Agate AND
2 Rock Carving Classes with Bruce McKay.

Silent Auction:

Donate *rock related items for the auction.*

Send us an email and we will email a form to you.
Bring your filled out form and your item to the picnic.
We will have forms at the picnic.

All Proceeds Go to Support the Club.

Club members, if you want to sell your rock related items, bring a table and canopy, we will have space around the perimeter of the picnic area for you to set up. A canopy, if you use one, must be held down with sand or water,
no stakes in the grass per the city.

Please be respectful and leave your dogs at home.

American Legion Park 850, SW Rimrock Way, Redmond, OR 97756

Polka Dot Field Trip

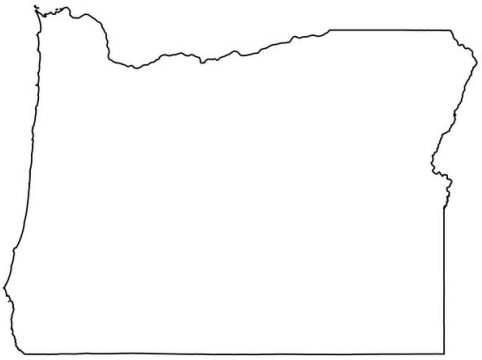
If you missed our trip, time is running out!
The mine will be closing on July 27th.

Amazing Time!

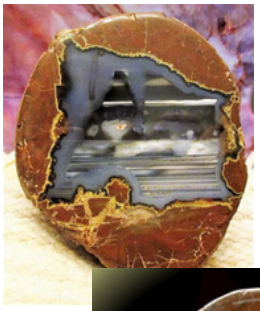
Amazing Finds!

STATE BY STATE ROCKS, GEMS, MINERALS

Oregon



State Rock: Thunderegg



A thunderegg is a nodule-like rock, similar to a filled geode, that is formed within rhyolitic volcanic ash layers. Thundereggs are rough spheres, most about the size of a baseball—though they can range from a little more than a centimeter to over a meter across. They usually contain centres of chalcedony which may have been fractured followed by deposition of agate, jasper or opal, either uniquely or in combination. Also frequently encountered are quartz and gypsum crystals, as well as various other mineral growths and inclusions.

State Gem: Sunstone

Oregon Sunstones are rare and beautiful mineral crystals found exclusively in the high desert of Southeastern Oregon. While sunstones have been discovered in other parts of the world, such as Canada, Mexico, Norway, Australia, Russia, China, Tanzania, and across the United States, Oregon Sunstones are unique. They are the only sunstones that contain copper, giving them a metallic flash highly prized by gemologists.

Oregon Sunstone Formation.

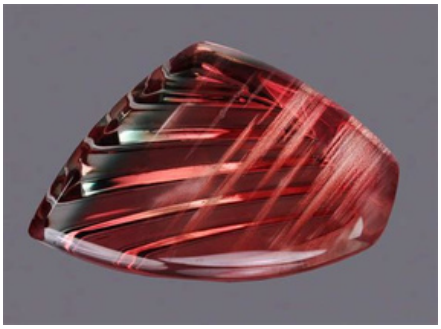
Oregon Sunstones formed over 13 to 14 million years ago in molten basaltic lava during eruptions from the Steens Mountain. For thousands of years, the lava flows were covered by water, until the region's climate dried out the area, exposing the basalt flows and releasing the sunstone crystals.

Oregon Sunstone Color

Color

The copper inclusions in Oregon Sunstones create a shimmering optical effect known as schiller or aventurescence, where light reflects off tiny copper platelets, producing a bright flash when viewed from certain angles.

The stone's color is directly related to its copper content.
For instance:



- **Red stones have the highest concentration of copper, over 200 parts per million (0.02%).**
- **Green stones contain about 100 parts per million (0.01%).**
- **Yellow stones have around 20 parts per million (0.002%).**

These copper-rich sunstones are highly prized by artisans and collectors. Some stones even exhibit multiple colors, such as pink on one side and red on the other, or green patches combined with red. The rarest sunstones possessdichroic or trichroic properties, meaning their colors or color intensity changes when viewed from different angles. Some stones even resemble alexandrite, changing color depending on the type of light (daylight vs. incandescent light).

State Mineral: Oregonite & Josephinite (Awaruite)

Oregonite is a nickel iron arsenide (A compound of arsenic with a metal, or positive element or radical; -- formerly called arseniuret). mineral first described from Josephine Creek, Oregon, United States.
Oregonite crystallises in the hexagonal crystal system and has a Mohs hardness of 5.

Awaruite is a naturally occurring alloy of nickel and iron with a composition from Ni_2Fe to Ni_3Fe.

Awaruite is also known as josephinite in an occurrence in Josephine County, Oregon where it is found as placer nuggets in stream channels and masses in serpentinized portions of the Josephine peridotite. Some nuggets contain andradite garnet
An occurrence of awaruite was examined as an ore mineral in a large low grade deposit in central British Columbia, some 90 km northwest of Fort St. James. In the deposit awaruite occurs disseminated in the Mount Sidney Williams ultramafic/ophiolite complex.

References:

statesymbolsusa.org google.com gisgeography.com rockseeker.com. en.wikipedia.org. rockchasing.com. oregondiscovery.com duckduckgo.com

Upcoming Events

The 4th of July, also known as Independence Day, commemorates the adoption of the Declaration of Independence by the United States on July 4, 1776, marking the country's separation from British rule. It reflects national pride and patriotism.

CORC Field Trips/Upcoming Events

July 19:
Annual picnic with raffle and silent auction

August 16:
Richardsons Rock Ranch
Bring a sack lunch and chairs and we will have a picnic together

September 13 and 14:
Joe Cota's Rock Shop/Dig in Sweet Home

October 11 & 12: 3 Amigos Claim

November Annual Holiday Party:
TBD

Please Know All CORC Field Trips are Subject to Change

2025 CORC Board Members

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MEMBERSHIP

Renew ONLINE at the CORC website
(corockcollectors.com)

Renew by MAIL or IN PERSON.
Print the membership form from the CORC website and mail it to:
Central Oregon Rock Collectors (CORC)
4817 SW Volcano Ave
Redmond, OR 97756
or bring it to the next meeting or field trip.

Annual membership dues are:
$20 for individuals,
$25 for household
and $5 for juniors.
(Note: Junior memberships are for minors who are accompanied by a club member from a different household.
e.g. Grandparents, aunts, uncles)

Contact Us

Email: corc.rocks@gmail.com

Mailing Address:
4817 SW Volcano Ave
Redmond, OR 97756

Meeting Address: 3800 SE Airport Way, Bldg 3, "The Annex", Redmond, OR 97756

ANNOUNCEMENTS

EST. 1935

PETERSEN

ROCK GARDEN

Volunteers needed to staff the museum/gift shop

Flexible hours.

contact:

petersengardenmuseum@gmail.com

Museum/Garden Hours:

7 days a week 10-4

Do You Need a Rock Cut?

Check out the pinned post on our Facebook page to find someone that can help you out!

Sanding/Polishing Slabs/Thundereggs

.50/square inch

Contact:Dan Siroshton (541)954-8234

To post an announcement or ad in the CORC newsletter please email corc.rocks@gmail.com

You must be a current member to do so.

CigarBoxRock Lapidary

63291 Nels Anderson Rd
Bend, Or
Open Tuesday- Saturday
9:00am - 3:00 PM
CBR@Bendnet.com
541-389-9663 Or
541-280-5574
Follow us Facebook and Instagram
Cigarboxrock.com

Faceting and Cabbing

Dale B. Barrett, lives in Redmond, is offering to cut and facet stones for CORC members at a very affordable price.

Contact Dale @ 541-694-0325

or

Email: Commandchief68@gmail.com