

CENTRAL OREGON ROCK COLLECTORS



A Short Note From the President

CORC is a community of people who are brought together by their passion for rock hounding. With such a diverse group there are bound to be differing opinions on how the club operates. The Board welcomes input from all members but please communicate your concerns and comments to us in a courteous, and respectful manner. Remember, all of CORC's leaders are VOLUNTEERS who take the time from their busy lives to keep the club running smoothly. If you have any comments or issues you wish to discuss you can always email me at: corc.rocks@gmail.com.

--Tonia

Sinkholes: When the Earth Opens Up

by Jeremy Hall April 1, 2024
Rock Seeker via: Bruce
VanderZanden
Part 2



Human activity can cause sinkholes in a few way, although they follow the same general rules. Some examples include:

Mining- Improper support or a lack of backfilling can create sinkhole risks when a shaft or tunnel collapses under its own weight. This will naturally have surface effects.

Poorly Planned Construction- If natural drainage and topography isn't taken into account, then construction can actually change these features and create the conditions for a sinkhole to form.

Leaking Water- Busted pipes, whether water main or sewer, are a common cause of human-created sinkholes. The leaking water changes the composition of the local sediment and may allow it to run off, dissolve, or otherwise create the void responsible for the sinkhole.

In essence, no sinkhole happens without space for the surface to collapse. The effects can be quite dramatic, and our modern times have seen some real disasters caused by the effects of sinkholes.

It's All in Karst Topography

Karst topography is the biggest single identifier of areas where sinkholes occur. The entire basis of this kind of system is due to water-soluble rock forming and being moved by water. It can form complex cave systems, including those which can cause sinkholes to occur.

Essentially, the rocks involved are almost universally carbonate-based. Even slightly acidic water, such as that which has picked up carbon dioxide, can dissolve these stones over time. The effect becomes pronounced over time.

Sinkholes are only one feature of karst systems. Also occurring are sinking streams, which may go underground at various points, springs, and caves are common features of this type of geology. It's also been observed in a few other stone types, but they're most common in areas where dolomite or limestone is the bedrock.

Karst topography isn't always apparent on the surface of an area. If a layer of harder rock forms over the carbonate-rich minerals beneath, for instance, it can result in an area with few surface water features and none of the features associated with karst systems.

Mitigating Sinkholes

When they happen, sinkholes can be an expensive problem to fix.

On private and commercial properties, minor sinkholes may emerge. These can devalue the property and create a future hazard as the sinkhole continues its downward journey.

The recommended course of action for even a minor sinkhole can be pretty extreme. Essentially, you'll have to dig out the hole to the bedrock and then backfill it with sand or another sediment.

In the event of larger, sudden sinkholes the costs to the local infrastructure can be incredible. Sinkholes that occur in the city may require millions of dollars just to fill them completely back in, and that's not getting into the cost of damage and toll of human life that larger sinkholes can make.

For the most part, it's much easier to design infrastructure in a way that minimizes sinkhole formation since treating even minor examples is often ridiculously expensive and requires specialized knowledge to prevent it from happening again.

Famous Sinkhole Examples

In a strange way, sinkholes tend to either be beloved natural landmarks or absolute disasters for nearby humans. While the occasional "annoying" sinkhole may show up, such as a small depression over a shallow but busted water main, most people associate them with much larger holes.

One of the most dramatic examples of a sinkhole can be found near the Mexican town of Aquismón. The Cave of Swallows opens up into the jungle with a hole nearly 200 feet across.

More astonishing is the depth. The distance from the lip of the cave to the floor is over 1200 feet. Most visitors will only take a look over the edge, but it's also been the site of people engaging in base jumping and rappelling to reach the floor.

Oddly, the Cave of Swallows is primarily inhabited by non-swallow species. The floor is also covered in guano, so it's probably not worth the trip to the bottom unless you're engaged in extreme activity.

It remains an example of one of the largest natural sinkholes in the world.



The 2007 Guatemala City Sinkhole



In 2007, a disaster struck Guatemala City. A sewage line rupture created a large void underneath the city, removing the uncemented sediments underneath the surface of the earth.

The end result was the loss of five human lives, twelve homes, and a hole that went 330 feet straight down with vertical walls. The area under the city is largely comprised of pyroclastic ash and limestone

that isn't cemented, making large water leaks under the surface a serious problem.

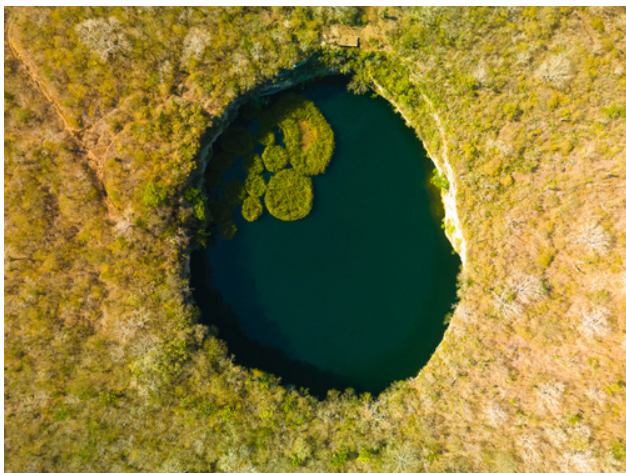
It was filled in with a local concrete mixture.

In 2010 a similarly sized hole emerged, although this particular example “only” killed one person. This one ended up swallowing a three-story factory.

Due to the area's geology, it's likely that entire systems will be need to reworked to prevent these sinkholes from happening again.



Zacatón



Zacatón is a 1000-foot deep, water-filled sinkhole located in the Mexican state of Tamaulipas. It's named for the grass which forms into large mats that float around the surface of the hole's water.

It's unique in that it's filled with hydrothermal waters, and it's the only one of the five major sinkholes located in the region that seems to have water moving in and out of it. Interestingly, the sinkholes in this region seem to be closing on their own. Travertine, a calcium carbonate rock, appears to be forming as a sort of “skin” on the

surface of the water. This process will take thousands of years, but considered on its own it's definitely a geological wonder.

Mile Post 27 & 32

Decent fossils, average pet wood and killer jasper were some of the finds this weekend...Thank you Ken, Dee and Bruce for the great pictures!!



Upcoming Events

You Don't Want to Miss These!!

ROCK SALE

June 6th and 7th from 9-4

22135 Nelson Road, Bend

"FRED'S STONES were originally collected in Oregon by my father Fred"

A great opportunity to pick up some great rocks. raw, sliced,
tumbled or polished.

Facebook.com/Fredksrocks



Prineville Rockhound Pow Wow

June 19-22

Thu. 9-5, Fri. 9-5, Sat. 9-5, Sun. 9-4

79th Annual Jewelry, Gem, and Mineral Show
Crook County Fairgrounds, 1280 South Main Street



Madras Rock and Gem Show

June 26-29

9 to 5 Thur. - Sat...Sun. 9 to Noon

Madras Fair Grounds. Madras
Put on by the Rock and Gem Club



CORC Field Trips

June 14 & 15:

Bear Creek

July 19: Annual Picnic at
American Legion Park
Redmond

August 16:

Richardsons Rock Ranch

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

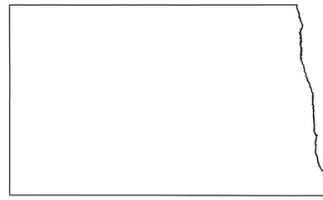
STATE BY STATE

ROCKS, GEMS,

MINERALS

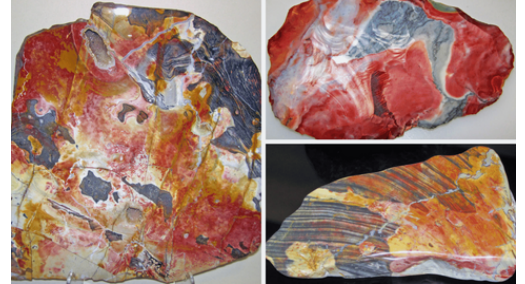
North Dakota

No designated rocks or minerals



Ohio

State Gem: Ohio Flint



Ohio flint is a microcrystalline form of quartz, generally regarded as an impure form of chalcedony. Chalcedony is a mixture of both quartz and its

polymorph moganite, but the crystals intertwine at such a small level that even a microscope can have trouble discerning the exact structure of the crystals.

Ohio flint has a reputation for being a tough, durable source of tools but it's also available in a wide range of different colors that make it a favorite to this day. You'll see it sold as



“rainbow flint” on occasion. While trade names make things difficult for collectors, it's certainly an accurate description in this case!

Ohio flint occurs within large deposits of marine limestone in the state of Ohio. Limestone is a sedimentary stone comprised of calcium carbonate minerals, particularly aragonite and calcite. Most of these minerals are derived from organic sources. In particular, corals and some microorganisms. The skeletal structures left behind by these sources accumulate over time as they're broken down, creating grains of sediment. In other cases, the grains may come from the shells of mollusks and calcium-rich algae.

This form of bio-generated mineral accumulates on the bottom of the sea due to one of the few constants of our planet: erosion. Over time, it buries itself increasing the amount of pressure due to the sheer mass of it all. We're talking about geological time scales here. Once pressed together, the result is limestone.

Cherts, jaspers, and flint are common finds in limestone.

They seem to occur when silica-rich water begins to flow into the stone. Limestone is porous, which means it absorbs water and allows it to seep into voids. The silica is deposited in these voids and over time forms into different forms of microcrystalline and macrocrystalline quartz.



Oklahoma

State Crystal: Hourglass Selenite Crystal



Hourglass selenite crystals are found only on the salt plains of Oklahoma, a unique 11,000-acre geological area. The salt plains were formed by repeated flooding by sea water millions of years ago.

Selenite (hydrous calcium sulfate) is a crystallized form of gypsum, a common mineral in sedimentary environments that can take on a great variety of crystal forms and shapes. Crystals take on the characteristics of their environment - iron oxide in the soil gives the hourglass crystals their chocolate brown color.



On the salt plains, sand and clay particles often form an "hourglass" shape inside the crystal. Crystals measuring up to 7 inches long have been found, along with complex combinations weighing as much as 38 pounds

State Rock: Rose Rock

Rose rocks are a special form of the mineral barite. The crystals create a form very similar to a rose, with a dusty red color and individual blades appearing as petals. They can be found alone or in large clusters, depending on the specimen.

Rose Rocks are a very rare formation, found in only a few select locations. The working theory is that they were formed as barite precipitated out of an ancient sea, surrounding bits of silica sand and growing from there.



Rose Rocks are sometimes called Desert Roses, but Desert Rose also refers to a similar formation of gypsum or barite. They can be quite similar, but the red sandstone that makes up Rose Rocks is part of both their defining structure and their appeal.

Rose Rocks don't always resemble perfect roses. The crystal blades can spread in strange directions. That said, the ones which resemble a rose are undoubtedly the most popular and highly sought after specimens.

The reddish color is actually imparted by hematite, the source of much of the red in the mineral world. It appears the color for the various types of Desert Rose all come from the soil. Rose Rocks just happen to grow in iron-rich sandstone.

References:

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



Annual CORC Picnic

Come join the fun!!!!

Saturday, July 19, 2025

11:00 - 2:00

Lots of food!

Main dish provided by Baldy's!!

Bring a side dish or dessert to share.

Raffles and Silent Auction.

**Support the club and bring rock related items
for the auction.**

**How it works: Pick up the silent auction form at the next meeting, or send
us an email and we will email a form to you.**

Bring your filled out form and your item to the picnic.

All Proceeds Go to Support the Club.

**Club members, if you want to sell your items, bring a table and canopy, we
will have space around the perimeter of the picnic area for you to sell your
rocks. 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

NEXT CLUB MEETING: June 18
Doors open at 5:30 meeting starts at 6

Speaker: Roger Seversen
"Relative Age -
Recognize the Sequence of Events in Rocks"

If you won at Bingo please bring a rock related item.

We will also have time for show and tell.

Meetings are held at: 3800 SE Airport Way, Bldg 3, Redmond, OR 97756

2025 CORC Board Members

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Tonia Smith

Vice President

Nancy Johnston

Secretary

Snow Hartley

Treasurer

Lupe Severson

Field Trip Committee

Co-Chair

Ken Lawson

Field Trip Committee

Co-Chair

Eric Smith

Claims Committee Chair

Barb Thompson

Program Committee Chair

Scott "Plaid" Peterson

Past President

Patricia Moreland

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Nancy Johnston

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Ashton Bowlin

Volunteer Coordinator

Vacant

Social Media

Chenowa Hartley

James Shaman

Barb Thompson

Ed Taft

OCRCM Representatives

Ed Taft

James Shaman

Bruce Vanderzanden

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

**Sanding/Polishing
Slabs/Thundereggs**

.50/square inch

**Contact: Dan Siroshon
(541)954-8234**

**Do You Need
a Rock Cut?**

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

EST. 1935
PETERSEN
ROCK GARDEN



Volunteers wanted:
staff for the museum/gift shop
Interested?? contact:
petersengardenmuseum@gmail.com

Museum/Garden Hours:
7 days a week 10-4

Volunteers Needed

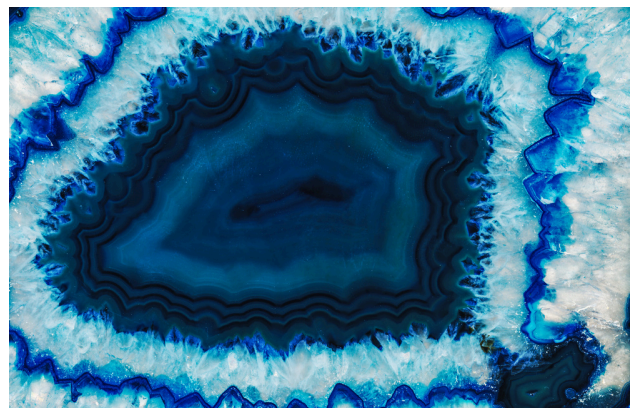
**The 2025 Prineville
Rockhound Pow Wow
June 19-22**

People are needed to:

Help with set up on June 17th

Staff our booth during the show.

**If you are interested email us at:
corc.rocks@gmail.com**



**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



**We are looking for a
Volunteer Coordinator
to be a part of our team!**

**Contact
corc.rocks@gmail.com**

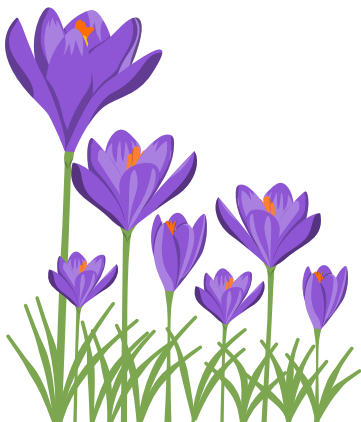
Faceting and Cabbing Machine

**Dale B. Barrett, who lives in Redmond,
will cut and facet stones for members at
a very affordable price.**

Contact Dale @ 541-694-0325

or

Email: Commandchief68@gmail.com



**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.**