



Member: South Central Federation of Mineral Societies



October 2020
Vol. 54, Issue 10

1st Place, 2019 SCFMS Mini-Bulletin
1st Place, 2017 AFMS Mini-Bulletin

Affiliated: American Federation of Mineralogical Societies

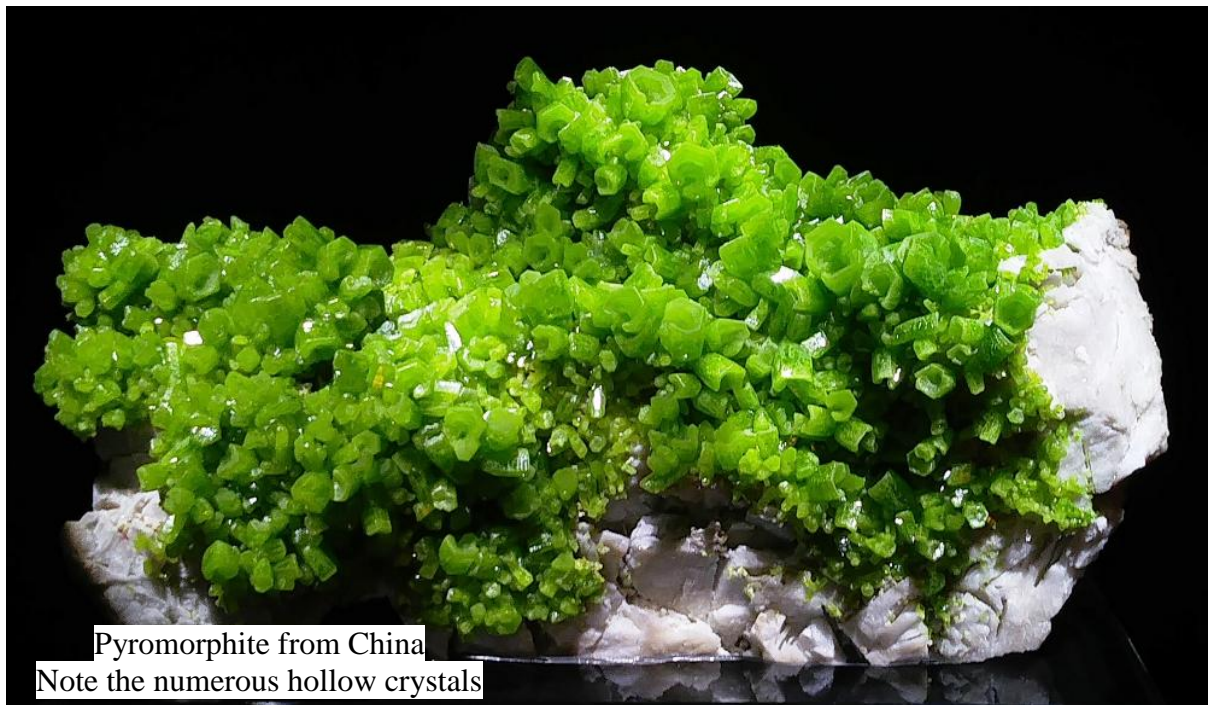


Pyromorphite

Don Shurtz, Pleasant Oaks Gem and Mineral Club of Dallas

Pyromorphite has been a side topic in different Chips and Chatter articles, but never the main topic. Amongst mineral collectors, pyromorphite is a popular mineral. Pyromorphite is lead chlorophosphate, $Pb_5(PO_4)_3Cl$ and is part of a series with Mimetite, $Pb_5(AsO_4)_3Cl$ and Vanadinite, $Pb_5(VO_4)_3Cl$; note the similar chemical formula. Pyromorphite has a Mohs hardness of 3.5 to 4.0 and a white streak. The pyromorphite comes in a variety of colors including green, yellow, reddish orange, brown, tan, white, and even clear. The brighter color specimens (green, yellow, and orange) seem to be most popular with collectors. One aspect of the crystals of pyromorphite is that they can be hollow. Interestingly, all the members of the pyromorphite, vanadinite, and mimetite series can have cavernous (hollow) needles. In the February 2020 Chips and Chatter article on Crocoite, I mentioned that it was my understanding, without any references to back it up, that only four minerals had hollow crystals. In that article, I mention crocoite, pyromorphite, and vanadinite. Now I can add mimetite to complete that list. All four are lead based minerals! The only other mineral that I have seen with hollow needles was a plumbogummite replacement of a crocoite specimen; the original mineral shape was hollow and was not altered in the replacement by plumbogummite.

Pyromorphite does not have many commercial applications. Better specimens are saved for mineral collectors. Pyromorphite can be used as a lead ore. At an atomic level, the weight of the lead is about three times as heavy as the weight of the remaining elements combined. Any time you have an ore contains about 75%, by weight, of the final desired product, you certainly have a



Pyromorphite from China

Note the numerous hollow crystals

rich ore! The instances where pyromorphite is used as a lead ore are circumstances where the pyromorphite is plentiful and the mineral specimens of poor quality or non-existent (i.e., massive pyromorphite). As I was searching for uses, I accidentally went to Amazon.com and found a small, green jar of refined pyromorphite for use as a paint tint. Years ago I think Datsun used pyromorphite as a tint for my 240Z; the color was called baby poop green (actually, they called it chrome green; it was just a joke I had to live with). Just to be clear and fair, I am sure they were not using lead based tints - the color was probably tinted by some chrome oxide combination.

Pyromorphite's name comes from the Greek *pry* meaning fire and *morfe* meaning form. But why fire and form? If you melt pyromorphite in a crucible (hence fire to cause the melting), rather than harden into a blob shaped like the crucible, it starts to form crystals again. Hence, from crystalline form, because of fire, to crystalline form again.

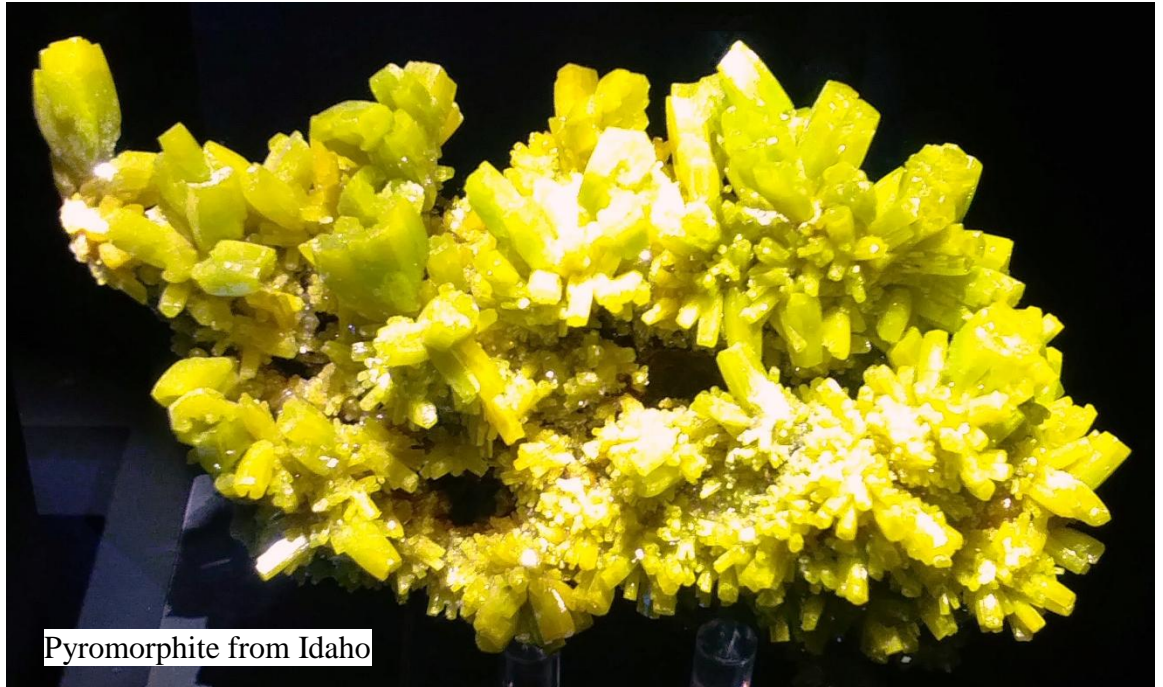
Chips and Chatter

Pleasant Oaks Gem and Mineral Club of Dallas, TX

October 2020

Visit us: www.pogmc.org "Like" us on Facebook

Pyromorphite can be found almost anywhere in the world that lead is found. The location map in Mindat.org shows it coming from Alaska through North America and into South America. On the other side of the Atlantic Ocean, it is found in Africa up through Europe and across Asia to the Pacific Ocean, and then south through Australia to New Zealand. In the United States, prime specimens come from Coeur d'Alene district in Shoshone County, Idaho. Other locations in the United States include North Carolina, Pennsylvania, and Massachusetts. Just to the south in Mexico, green specimens in association with Wulfenite (another lead mineral) have been found. In Europe, you can take your pick of England, France, Spain, and Germany. Excellent specimens come from Zambia in Africa, and in Australia from New South Wales, the Northern Territory, Queensland, and Tasmania. Some amazing specimens have been found in recent years in China. If you want to find a quality specimen of pyromorphite in Texas, you would be need to looking in large museums related to Natural History. However, if you want to find one of the few (rare) pore quality specimens of pyromorphite in Texas, you need to look in the Indio Mountains in Hudspeth County. There is a picture of a Texas pyromorphite at <https://www.mindat.org/photo-673063.html>. As the picture is copyright, this link is the best I can do.



References:

- The Mineral Pyromorphite, Minerals.net, <https://www.minerals.net/>
- Pyromorphite, Mindat.org, <https://www.mindat.org/>
- Pyromorphite, Wikipedia, <https://en.wikipedia.org/wiki/>

Pictures: Both photographs by Don Shurtz of specimens displayed at the Perot Museum of Nature and Science

- Green specimen from Daoping Mine, Gongcheng County, Guilin Prefecture, Guangxi Zhuang Region, China
- Yellow specimen from Bunker Hill Mine, Kellogg, Coeur d'Alene District, Shoshone County, Idaho

Shows and Activities – Upcoming Show and Activity Dates

**Please note that many shows are being canceled in response to health concerns associated with COVID-19
Check with the show contact to verify the show status**

- OCT 9–11 Dallas, TX, International Gem and Jewelry Show, Market Hall (main hall), <https://www.intergem.com/>
- OCT 10, SCFMS Convention Meeting via ZOOM
- OCT 10-11, Temple TX, Tri-City G&MS – **CANCELED**
- OCT 23-25, Austin, TX, Austin G&MS, Palmer Events Center, www.agms-tx.org – **CANCELED**
- OCT 31-NOV 1, Oklahoma City, OK, Oklahoma M&GS, State Fair Park, Modern Living Bldg, douglas.pollitt@yahoo.com
- NOV 2-4, Albuquerque, NM, Jay Penn Annual show, Expo NM State Fairgrounds, <http://abqfallshow.wix.com/abq-fall-show>
- NOV 6-8, Humble, TX, Houston G&MS, Humble Civic Center, hgms.org - **CANCELED**
- NOV 7-8, Amarillo, TX, Golden Spread G&MS, Amarillo Civic Center, www.amarillotreasure.com/

Ref:

- September - October 2020 SCFMS News
- Rock & Gem Show Dates, <https://www.rockngem.com/ShowDatesFiles/ShowDatesDisplayAll.php?ShowState=ALL>

Lead Mineral Word Find

Find the words in the Word List in the puzzle below. Words can be up, down, left, right, and on any diagonal.

Puzzle

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

Word List

ALTAITE	DUFTITES	NADORITE
ANDYCHRISTYITE	ESPERITE	PLUMBOGUMMITE
ANGLESITE	GALENA	PYROMORPHITE
ARDAITE	JORDANITE	RASPITE
ASISITE	LANARKITE	SAYRITE
BELLITE	LEAD	SUSANNITE
BERRYITE	LINARITE	TSUMEBITE
BOLEITE	MARRITE	VANADINITE
CERUSSITE	MASSICOT	VAUQUELINITE
CORKITE	MENEGHINITE	WULFENITE
COTUNNITE	MIMETITE	YANGITE
CURITE	MINIUM	

Solution on page 4

Safety Matters: Sharing Safety

By Elley Borow, AFMS Safety Chair

We rock hounds and rock hobbyists are a curious lot. We like quiet reflection as we study our collections, as we organize them, as we identify the minerals in them. We also like boisterously sharing our passions for rocks at gems shows, with talking excitedly of our latest finds, with generously exhibiting our artistry of gems and minerals.

There was one key word mentioned above--sharing. At every opportunity we share with exuberance. We share our rock passions, our collecting localities, our finds, our treasures, and our ideas. Ours is a sharing kind of hobby.

How does all that relate to safety one might ask. Well, to answer that we return to the one word - sharing. Do you have a safer way to use a slab saw? Do you have a safer way to clean minerals? Do you have a safer way to organize a silver smithing workbench? Perhaps you have a safer way to hold a rock chisel? When we have great ideas regarding safety--we share them. Actually, whenever we have great ideas about anything, we share them willingly, freely, gladly.

In this modern age, we have a great many ways to share our safety ideas with fellow club members—to share ideas we might use: Club newsletters and websites, Phone calls to members who might benefit, E-Mails Texts, Real honest-to-goodness letters in the US Postal Service, U-Tube videos, and all manner of social media outlets.

We have a plethora of ways and means to do one of the things we do best-- share our ideas. We use all those means and methods to our advantage. We have, after all, a sharing kind of hobby.

This message then is a short note to recognize and thank all those who share so very much and encourage people to keep on doing what we do best— sharing.

Bench Tips from Brad Smith

Reprinted by permission of the author, Brad Smith. Received as an email from Brad Smith

STRAIGHTENING WIRE

Have you ever pulled out some silver wire only to find that it's all bent up? The easiest way I've found to straighten it out is to stretch it a bit.

Simply put one end in the vise and grab the other end with a pair of serrated tip pliers. Then pull just enough to feel the wire stretch like a rubber band. This works best on smaller wire diameters, up to about 16 gauge.



Be careful if you are trying to pull hard on a thick wire. Brace yourself in case the wire breaks or pulls out of the

pliers.

DO BEZELS SHRINK

The engineer in me says there's no reason a bezel should shrink when I solder it onto a base plate, but I sometimes find that the stone won't quite fit into the bezel that was perfect just before soldering.

If that ever happens to you, here's a fix that usually works for those times when there's just a minor problem. I file or sand the stone down a little around its base. For soft cabs like turquoise, lapis, jet or Howelite, you can use a sanding stick. Harder cabs like jasper or agates will require a diamond file. In a pinch, a ruby nail file from the drugstore will work.



Work Smarter & Be More Productive With Brad's "How-To" Jewelry Books

[Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)



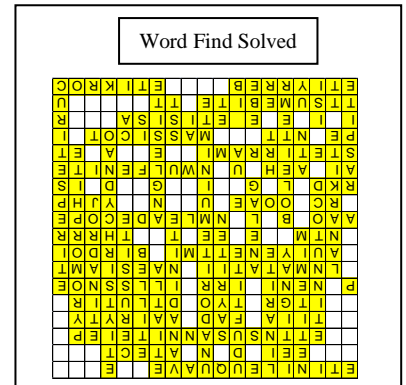
SUMMER ROCKHOUND

By Cindy Lind

From Rock-A-Teer 9/96, via Hy Grader 6/01, Via Backbenders Gazette 8/20

The 'Skeeter and the Rockhound both,
Went out to hunt one day.
The Rockhound wanted specimens,
The 'Skeeter wanted prey!
The Rockhound found a likely spot,
and settled with his gear.
He'd dug a short time when he heard,
A buzzing in his ear.
The Rockhound swatted at the noise,
And stood to look around.

He missed the 'Skeeter, but he saw,
A great stone on the ground!
The Rockhound bent to lift the stone,
His backside in the air.
The 'Skeeter took advantage then,
And bit the Rockhound there.
The Rockhound jumped and squashed the bug,
His bottom to defend.
The Rockhound and the 'Skeeter had,
Both got it in THE END!



VISIT AN AREA CLUB

- [Arlington Gem & Mineral Club](#), meets the 1st Tuesday of each month at 7:30 pm, 1408 Gibbins, Arlington, TX
- [Cowtown Gem, Mineral, & Glass Club](#), meets the 2nd Tuesday at 7:00 pm, CERA 3300 Bryant Irvin Rd. Fort Worth
- [Dallas Bead Society](#), meets 1st Saturday of each month at 10:00 am at The Point at CC Young, 4847 W. Lawther Dr., Dallas, TX
- [Dallas Gem & Mineral Society](#) meets the 3rd Tuesday of each month at 7 pm, American Legion, 10205 Plano Rd, Dallas (next to their shop)
- [Dallas Paleontological Society](#), meets 2nd Wed. of each month at 7:00 pm, Brookhaven College, Building H, 3939 Valley View Lane, 75244
- [Fort Worth Gem & Mineral Club](#), meets 4th Tuesday of each month at 7:30 pm, 3545 Bryan Avenue, Ft. Worth
- [Oak Cliff Gem & Min Soc.](#), meets the 4th Tuesday of each month at 7:30 pm, Unitarian Universalist Church, 3839 W. Keist Blvd, Dallas,
- [Pleasant Oaks Gem & Mineral Club](#), meets the 1st Thur. of each month at 7:30 pm, Garland Women's Activities Bldg., 713 Austin, Garland
- [Wild West Bead Society](#), meets 3rd Tuesday of each month at 6:30, Wild Beads, 2833 Galleria Dr., Arlington, TX

PRESIDENT'S MESSAGE

Ling Shurtz, POGMC President

Our October meeting will be election of officers for 2020-2021. The Nominating Committee report will be given, nominations from the floor accepted, and then elections. Officers will be installed in our November Meeting. October 9 – 11 is IGEM (if not cancelled). Set-up will likely be October 7 starting in early afternoon.

CLUB OFFICERS FOR 2019

President: Ling Shurtz
1st VP, Programs: Carolyn Grady
2nd VP, Field Trips: Open
Secretary: Lee Elms
Treasurer: Del Grady
Editor: Don Shurtz
E-mail: don.shurtz@gmail.com, L.SHURTZ@gmail.com

SEPTEMBER 3 2020 MEETING MINTUES

POGMC President Ling Shurtz called the September 3, 2020 club meeting to order at 7:40 PM.

We recited the Pledge of Allegiance to the Flag

Quorum: We have a quorum.

Sunshine Report: Warner is back in Rehab while the work to get his medications balanced

Visitors: There were no visitors

Minutes: We reviewed the minutes of the August meetings as printed in the September 2020 Chips and Chatter. Hatt made a motion to accept the minutes. Carolyn seconded the motion. The motion passed.

Treasurer's Report: Del Grady gave Treasurer's Reports for August. Carolyn made a motion to accept the Treasurer's Reports. Hatt seconded the motion. The motion passed.

Old Business:

The next IGEM is scheduled for 9 – 11 October at Market Hall. Set-up will likely be October 7 in the early afternoon.

New Business:

- Debbie Kitchen, the daughter of Bob and Jerrye Parker donated a large box of books, magazines, and pamphlets to Pleasant Oaks
- The Nominating Committee should report out next month. Contact a member if you are interested in being on the committee or serving in an elected office.
- Area shows (note that dates subject to change or show cancellation):

- OCT 9–11 Dallas, TX, International Gem and Jewelry Show, Market Hall (Main Hall),
- OCT 10, SCFMS Convention Meeting via ZOOM
- OCT 23-25, Austin, TX, Austin G&MS, Palmer Events Center
- OCT 31-NOV 1, Oklahoma City, OK, Oklahoma M&GS, State Fair Park,
- Cheryl mentioned a "Mineral Wells Crazy Fossil Dig" on October 19 at the city's Fossil Park and suggested a Field Trip. The topic will be reviewed next month

Break:

Presentation: The presentation was a video from The Great Courses series reviewing the geology of Bryce Canyon in southern Utah. Surprise #1 – Bryce Canyon is not a canyon – it is a large natural amphitheater caused by headwater erosion. A canyon is formed by water flowing through a water pathway (ditch, stream, river, etc.). Surprise #2 the hoodoos are not caused by wind erosion (what I was taught as a youth), but primarily by freeze/thaw cycles and rain that is a weak acid (dissolving carbon dioxide as it falls). Water gets into the cracks, and the freeze/thaw cycles (about 200 per year) eventually causes the crack to widen and pieces of rock to be removed. Initially the erosion forces forms plateaus, then fins (very narrow plateau), then windows (holes) in the fins, and finally hoodoos. Rocks more resistant to erosion (siltstone, conglomerates, aragonite, and more) slow the erosion process. Aragonite tops will significantly increase the life of a hoodoo. We all enjoyed this video and wanted to see more in the series.

Ling adjourned the meeting at 8:40 PM.

From notes by Don Shurtz

MEETING

Our October 1 meeting will be at the Garland Activities Building and will start at 7:30 PM. 2020-2021 Elections for 2020-2021 Officers will be held. Anyone want to volunteer? The presentation will be a video from the Great Courses series: Hawaii – Volcanic Island Beauty. Our November 5 meeting will be at the Garland Activities Building starting at 7:30 PM

VISITORS ARE ALWAYS WELCOME

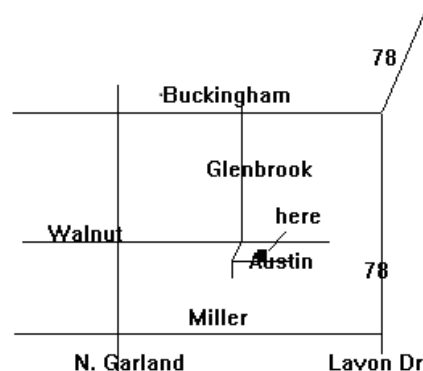
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PLEASANT OAKS GEM and MINERAL CLUB of Dallas



Meetings
 First Thursday of each month, 7:30 PM
 Garland Women's Activities Building
 713 Austin St., Garland, TX
 (Northeast corner of Austin & Glenbrook)

Membership
 Single Adult: \$16.50,
 Junior: \$5.00, Family: \$27.50
 (Plus badge fee for new members)



PURPOSE: The Pleasant Oaks Gem and Mineral Club of Dallas is organized for charitable and educational purposes to promote interest in the various earth sciences, particularly those hobbies dealing with the art of cutting and polishing gemstones, the science of gems, minerals and metal crafts, as well as their related fields. Pleasant Oaks Gem and Mineral Club of Dallas is a Section 501(c)(3) not-for-profit organization

CHIPS AND CHATTER
 Pleasant Oaks Gem & Mineral Club
 PO Box 831934
 Richardson, TX 75083-1934

To:

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VISITORS ARE ALWAYS WELCOME
The October 1 meeting will start at 7:30 PM.

Our presentation will be a video: Hawaii – Volcanic Island Beauty

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