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# The Council Reporter



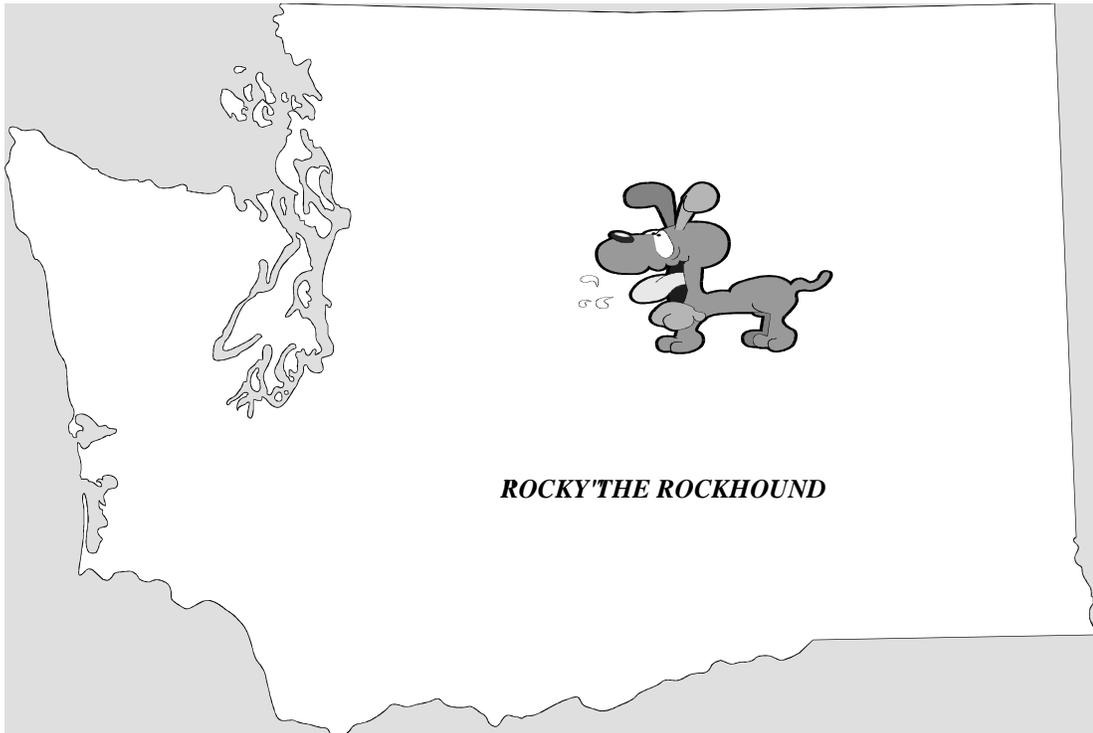
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**Official Publication of the  
Washington State Mineral Council**

**WASHINGTON STATE MINERAL COUNCIL  
2013 OFFICERS**

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Wagonmaster	open		

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

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# Combined Board Meeting Minutes 05/04/13

The meeting was called to order at 9:35AM at the Palace Café in Ellensburg, WA by Becky Gillespie in the absence of the president and Vice President.

12 members representing 7 clubs were in attendance.

Kathy Earnst gave the treasurer's report.

Stu Earnst sent word that the first 6 months of field trips to be planned at the November meeting rather than waiting until November to start the planning process.

There were no committee reports or old business.

#### **New business:**

The question was asked if we have a forum on the website for people to make comments. The answer is to call the Webmaster, Glenn Morita. (GM—I can enable the comments on the website but I will have to monitor it for spam.)

The Lakeside club has decided to drop out of the WSMC but wanted to know if they could still go on our field trips.

Howard Walter brought pictures taken of the Yakima show and involvement with youth for Bob Pattie. Kathy will see to it that Bob gets them.

Green Mt is now open for those with permits.

The Ellensburg library currently has a rock display with the theme of geodes. The Shelton library will have a display in Jun and July, and will be hosting the curator of the Rice Museum of Rocks and Minerals of Hillsboro, OR. Dr. Lara O'Dwyer Brown will be speaking on the rock and minerals of the Northwest at their June 27 meeting.

The Marysville club will be represented at the "Junk in the Trunk" on July 13.

Submitted by Diane Myers, Secretary

#### **MAY BIRTHSTONE**

The emerald belongs to the beryl family of minerals that

## June 18, 2013 Westside Board Meeting AGENDA

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

### **Tentative Meeting Calendar for 2013**

West side board meetings:  
1/15, 2/19, 4/16, 6/18, 10/15

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

General meetings :  
3/30, 5/4, 9/21, 11/2

All general meetings will be held at:

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

include aquamarine (one of March's birthstones), heliodor, and morganite. Beryl, or beryllium aluminum silicate in chemical jargon, is a six sided symmetrical crystal. Beryl contains beryllium, aluminum, silicon, and oxygen.

Emeralds vary in color from light to deep green. It's commonly thought that an emerald's color derives from the presence of chromium and/or vanadium replacing some of the aluminum in the mineral's structure. The stone can, however, lose its color when heated strongly.

Several famous historical artifacts were made of emeralds. Among them is the Crown of the Andes, said to be made from emeralds worn by Atahualpa, the last Inca (king) of Peru. The crown is set with about 450 emeralds, collectively weighing 10 ounces (1523 carats).

Emeralds are most frequently found inside a form of shale – a fine-grained sedimentary rock. Emerald-bearing

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shale has undergone recrystallization caused by changes in the physical environment such as pressure and temperature. Colombia produces the largest and highest quality emeralds. They were also discovered, and subsequently mined, in the Ural Mountains of Russia around 1830. In the United States, emeralds can be found in North Carolina. Around the world, they also occur in Zambia, Brazil, Pakistan, Norway, Austria, India, Madagascar, and Australia.

Synthetic manufacture of emeralds was achieved by German chemists shortly before World War II. But growing synthetic stones of fine quality began in the United States in 1946. There are also excellent imitation emeralds on the market made of colored cut glass.

The emerald's name is indirectly derived from the Greek word "smaragdos," a term applied to several kinds of green stones. The history of emeralds can be traced back to antiquity. They were worn by royalty in Babylon and Egypt. Tools dating back to 1300 B.C., during the reign of Rameses II, have been found in emerald mines in Egypt. Queen Cleopatra's emeralds were believed to originate from mines in Southern Egypt, near the Red Sea.

When the conquistadors first arrived in South America from Spain, they saw indigenous rulers wearing emeralds. They took large quantities of emeralds from the Peruvians during the invasion, but the source of the emeralds was not discovered. Then in 1537, the Spaniards found Chivor in Colombia, now the location of an important emerald mine. They also took over the Muzo mine following the defeat of the Muzo Indians. Mining operations at Muzo have continued almost uninterrupted since the Spanish invasion. It is perhaps the most famous emerald mine in Colombia and is said to produce the world's best emeralds.

There are many myths associated with the emerald. The stone was once believed to prevent epilepsy, stop bleeding, cure dysentery and fever, and protect the wearer from panic. Its magnificent green color was said to rest and relieve the eye. To the ancient Romans, emeralds were dedicated to the goddess Venus because the green emerald symbolized the reproductive forces of nature. Early Christians saw it as a symbol of the resurrection of Christ. In the Middle Ages, emeralds were believed to hold the power to foretell the future.

Article from [www.earthsky.org](http://www.earthsky.org) . Visit the web site for more fascinating information.

Via The Petrified Digest 05/13

### **Cutting Ethiopian Welo Opal**

The new opal deposit in Ethiopia, in Welo Province in the north of the country, is producing spectacular crystal opal displaying very bright play-of-colors in a variety of patterns. The opals in this new deposit, discovered in 2008, are nodule-like stones in an unusual variety... where some stones resemble top Mexican fire opal with excellent play-of-color, others resemble subtle dreamlike stones from Brazil and many resemble bright crystal opal from the Andamooka opal field of South Australia. It's quite easy to become enamored with this opal.

Most of the opal from Welo is hydrophane opal. Hydrophane opal quickly absorbs water and the opal's base color or appearance changes, becoming very clear. The play-of-color, though not entirely disappearing, fades out. But luckily this is only a temporary problem... when the opal is allowed to air-dry for 3-4 days, almost like magic, the body color and play-of-color return to normal. Some of this opal becomes white when going through its drying process... but it too returns to its normal crystal or semi-crystal state, although it may take a few days longer to become clear again and for the play-of-color brightness to return.

***Please read the following procedure carefully before cutting this opal!***

**Cabbing:** When cutting this material I use Elmer's Glue -All to glue the stone to a 1/4 " x 5" long wooden dop stick. Let the stone dry overnight, then coat the non-waterproof glue with a coating of clear fingernail polish to make it waterproof. Avoid using dopping wax... especially if the opal has been exposed to and has absorbed water. Cracks can appear between the clear hydrophane portion of the opal and the still fiery portion of the opal, when partially wetted opal is heated. So be aware that this material can be VERY heat sensitive. I use a 220-grit diamond grinding dry wheel to rough grind the stone... dry. Opal's relatively soft and a 220grit diamond wheel cuts fast enough and also doesn't leave the deep scratches (and won't be as likely to chip) that an 80 or 100-grit wheel will... especially when working dry. Watch for heat and dust (you might want to use a mask if you're doing a lot of opal cutting... opal dust can cause silicosis), but with light pressure on a diamond wheel,

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opal doesn't heat much. But it is important to check your stone's temperature often.

I like to do the rough grinding dry, allowing the stones play-of-color to stay bright, to properly orient and rough shape the stone (if the stone has a uniform fire pattern throughout... orienting is not a problem & rough grinding can be done wet). But once that is completed I go to my normal water-cooled method of opal cutting using a 320 grit belt, on an expanding drum... for final shaping of the stone. And 600-grit will remove any leftover flat spots and course scratches... then onto 1200-grit and 3000-grit with a final polish using a mix of tin oxide and Linde A (10:1 ratio)... or 14,000 grit diamond. If you'd like, a disk with 50,000-grit diamond will give you a super final polish. Remove the fingernail polish coating by swirling in a jar with acetone in it for about 20 seconds (careful acetone is VERY flammable). Soak in a glass of water for 2-3 hours and the stone should fall off of the dop stick. If not let the stone soak overnight. I've never had a problem releasing the opal if it is allowed to soak in water overnight.

One weakness these stones seem to have is sensitivity to pressure... they can easily crack with anything more than moderate pressure. Unfortunately the cracking can place right down the middle of the stone. This isn't a crazing problem as you might find in Australian or Mexican opals, but a tendency to be fragile as you might find when cutting garnets. It's especially noticed when flattening the backs of cabochons on a flat lap. So please use caution when grinding and sanding these gems... and a slow gentle touch is okay as opals are a relatively soft stone that easily responds to abrasives.

**Drying Welo Opals:** Here in Billings the air is very dry and Welo opals return to their original bright colorful state after drying for 2-3 days. But to accelerate the drying time I use a quart Mason jar 1/2 full of silica gel desiccant. Leave the stones in the jar overnight and in most cases the stones have returned to their original color and brightness. I've recently spoken to an opal customer who lives in a very humid area and his cut Welos have taken an extended time to return to their original bright colorful condition after wet cutting. His solution sounds scary... but he's had good luck (a dozen good stones at this writing). He uses a programmable burnout oven and sets the temperature for 65-70 degrees Celsius. He programs the heating cycle to warm at 2C/minute and leaves the stone at temperature for 1 hour and then allows the stones to cool down naturally. He says his stones have dried beautifully without a problem.

Another opal cutter has come up with an effective and less expensive method of drying his stones. He uses a desk lamp with a 60 watt incandescent bulb (standard round bulb, not spot light) and positions his stones about 10"-12" below the bulb... very gently heating the stones overnight.

**Dry Cabbing:** This procedure isn't for the faint of heart as it's still not a proven method of cutting Welo opal... so beware and be VERY careful of heat build-up. I've been experimenting with cutting this opal completely dry... except for moistening the polishing wheel slightly, when using tin oxide or cerium oxide on leather, to improve the polish. Tin or cerium doesn't seem to work well completely dry. But diamond compound with a bit of baby oil or extender fluid, should be fine for polishing... perhaps better than tin or cerium (I'm just old fashioned and I have a lot of tin oxide). I dop the stone to the wooden dowel using Elmer's Glue-all, as previously mentioned, but no fingernail polish is needed as this is essentially cutting dry. Again... watch carefully for heat buildup... this opal can be very heat sensitive. And if you are using Nova wheels or expanding drums with diamond/resin bonding: beware of sharp edges on your stones peeling off the abrasive coating on the wheels or belts... water provides lubrication for the belts and Wheels so this will decrease your diamond abrasive wheel life. There is a LOT of dust coming off the stones and this can be dangerous as it causes silicosis!! Be sure to at least wear a good dust mask. The results cabbing dry have been encouraging... no color change to wait on. But the jury is still out... need to cut a few more stones to see how well this works on a variety of Welo opal types. To remove the stones from the dop sticks I simply use a fine jewelers saw to cut the stones off of the sticks, at the stone-stick glue interface. Then sand off any extra wood or glue on fine (400-600 grit) wet/dry sanding cloth or a dry flat lap... checking often for heat.

**Carving:** If you plan to carve this opal (it carves wonderfully) and are using syringes filled with color-coded diamond paste, beware of the color staining the opal. I've switched to mixing my own diamond compound (1200, 3000 and 14,000 grits) with a mixture of diamond powder and clear baby oil... it's even a bit cheaper... and it smells better. If you want it thicker add a bit of Vaseline and stir well... or for a different consistency, I've heard that melted bees-wax or Crisco has worked well. I like to carve this material using a combination of diamond/metal bonded grinding points, Cratex points (coarse, medium fine and extra-fine) for sanding and diamond compound on bullet shaped felt points... dry.

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**TENTATIVE LIST OF WSMC FIELD TRIPS FOR 2013**

The WSMC sponsors field trips through various rock clubs in the state. These trips offer the general public as well as the experienced rockhound the opportunity to collect a wide variety of materials from agate and jasper to crystals and fossils. Experienced guides familiar with the sites are on-hand to help find good quality material. Check with the local clubs in your area for further information. **AREAS CURRENTLY CLOSED TO COLLECTING: LUCAS CREEK, ADNA, DIATOM PITS (FRENCHMAN HILLS).** No motorized vehicles allowed: Green Mountain (Kalama) and First Creek.

Check out the trip info, and tool listings at: [mineralcouncil.org](http://mineralcouncil.org).

Updated: January 17, 2013

<u>Date</u>	<u>Host</u>	<u>Site</u>	<u>Meet @</u>	<u>Material</u>	<u>Tools</u>
01/26/13	Msvl	Cedar Ponds	9:00 @ Monroe Jack n Box	Jasper	Dig & light hard rock tools
2/16/13	Msvl	Beaver Valley	10:30 @ info Ctr B. V. Rd	Chert, Zeolites	Light hard rock tools
3/23	Msvl	Saddle Mt	9:00 @ Leprecon market Matawa, WA	Petrified Wood, Opal	Dig tools
4/13	Msvl	Racehorse Creek	9:00 IGA @ Nugents Corner	Fossil leaves, mushrooms	Lt hard rock
4/20,21	Pow	Saddle Mt	8:00 @ launch S. of Matawa	Petrified Wood	Light hard rock tools
5/18	Everett	Walker Valley	9:00 @Big Lk Store Contact: Brad Johnson (1st VP WSMC) - <a href="mailto:cavemanrocks@yahoo.com">cavemanrocks@yahoo.com</a>	Geodes	Hard rock tools (lots of energy)
6/22	Msvl	Not decided, maybe	Mt Higgins or Pilchuck Ck	Rhodonite, Jade, Grossular Garnet	
6/26-30	Pow	Madras	8:00 @ Jefferson Fair, Madras OR	Agate, Jasper, Petrified Wood, T-Eggs	Private farms
07/13-14	Spokane	Lolo Pass	9:00 @ Lolo Pass Resort Parking Lot Contact: Mike Shaw (509)244-8542 (509)251-1574	Smokey quartz crystals	Shovel. pick
7/ 20	Msvl	Gold Mt	11:00 @ Show (20,21)Darrington behind IGA	Travertine	Lt hard rock
7/27	Msvl	Lake Wenatchee	9:00 @ Coles Corner	Garnets	Shovel, bucket, 1/4" screen, wading
08/3	Spokane	Chewelah mines	9:00 @ Chewelah Safeway Contact: Mike Shaw (509)244-8542 (509)251-1574	Magnesite	Rock hammer, light digging
8/17	NW Opal	Greenwater	9:00 @ Ranger St, Enumclaw Contact: Tony Johnson or Ed Lehman	Agate, Jasper	Dig, Lt & hard rock tools
9/7,8	Pow	Red Top	8:00 @Teaway R Camp	Agate, Jasper, Geodes, Jade	Dig, Lt hard rock
9/14	NW Opal	Little Naches	9:00 @ 410 &FR 19 Contact: Tony Johnson or Ed Lehman	ThunderEggs	Dig & Light hard rock tools
10/19	Msvl	Money Creek	9:00 @ Camp Ground	Pic Jasper, Ore	Light hard rock tools
11/16	Msvl	Blanchard Hill	9:00 @ I-5 240 exit gas station	Stilpnomelane	Hard rock tools

(\* Deposit must be received no later than 30 days before trip date to reserve spot; deposit fully refundable.) Participants must be age 16 or older; no children or pets, please; maximum of 40 participants so get your reservations in early!)

**ALWAYS CALL TO CONFIRM TRIP DATES AND DETAILS!!— SEE BELOW**

<u>Abbreviation</u>	<u>Host</u>	<u>Contact</u>	<u>E-mail</u>
<b>Evt</b>	Everett Rock & Gem Club	Brad Johnson (206) 403-3073	<a href="mailto:cavemanrocks@yahoo.com">cavemanrocks@yahoo.com</a>
<b>LkSd</b>	Lakeside Gem & Min Club	Andy Johnson (509) 546-1950	<a href="mailto:cbagates@hotmail.com">cbagates@hotmail.com</a>
<b>Msvl</b>	Marysville Rock Club	Ed Lehman (425) 334-6282	<a href="mailto:wsmced@hotmail.com">wsmced@hotmail.com</a>
<b>Msvl-Wasco trip</b>		Stu & Kathy Earnst (360) 856-0588 27871 Minkler Rd, Sedro Woolley, WA 98284	<a href="mailto:earnstkk@comcast.net">earnstkk@comcast.net</a>
<b>MtBk</b>	Mt Baker Rock Club	Kris Menger (360) 927-0994	<a href="mailto:kmenger@comcast.net">kmenger@comcast.net</a>
<b>Nw Op</b>	NW Opal Association	Tony Johnson (253) 863-9238	<a href="mailto:ynotbandit@earthlink.net">ynotbandit@earthlink.net</a>
<b>Pow-Wow</b>	All Rockhounds Club	<a href="http://www.allrockhoundspowwowclubofamerica.com/">http://www.allrockhoundspowwowclubofamerica.com/</a>	
<b>Spkn</b>	Rock Rollers of Spokane	Mike Shaw (509) 251-1574	<a href="mailto:mikeshawmoose@yahoo.com">mikeshawmoose@yahoo.com</a>
<b>WSea</b>	West Seattle Rock & Gem Club		
<b>Yak</b>	Yakima Rock & Min Club	Jerry Wichstrom (509) 653-2787	<a href="mailto:jewtmew@aol.com">jewtmew@aol.com</a>

Trips are open to all. Most 2 day trips include Sat potluck, Sun free breakfast, tailgating, swap, and horse shoes. Small fee required for Pow Wow and Madras trips. FOR MORE INFORMATION contact Ed Lehman at [wsmced@hotmail.com](mailto:wsmced@hotmail.com) or (425) 334-6282. Or see [mineralcouncil.org](http://mineralcouncil.org)

(Continued from page 5)

When working dry, using these techniques, you won't have the color change problems associated with working wet. I've found that as long as I'm VERY careful with heat... checking the stone's temp often... this opal can be successfully cut dry. But it is heat sensitive, like other opals, so care must be taken working without water.

Keep in mind this is just one of many cutting techniques that will accomplish the same result... a beautiful, well

cut opal cabochon. The important things to remember are: cut slowly, avoid over-heating your stones, smooth out flat areas and polish your opals well... checking carefully for scratches.

from Roc Toc 4/11, via CMS eTumbler 05/13

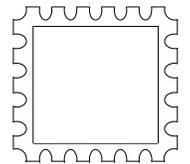
## Local Area Shows for 2013

May 2013 26th 9am - 5pm		Seattle Mineral Market #6	Lake City Community Center 12531 28th Ave. NE, Seattle
May, June 2013 31st 12pm—5pm 1st 10am—5pm 2nd 11am—4pm	Puyallup Valley Club	Annual show	Swiss Park 9205 198th Ave. E. Puyallup, WA
June 2013 1st 10am—6pm 2nd 10am—5pm	Everett Rock and Gem Club	60th Annual show	Everett Community College Student Fitness Center, 2206 Tower St Everett, WA
June 2013 1st 9am—5pm 2nd 10am—4pm	North Idaho Mineral Club	Annual show	Kootenai County Fairgrounds 4056 N. Government Way Coeur d'Alene, ID
June 2013 15th 10am—6pm 16th 10am—4:30pm	Oregon Coast Agate Club	50th Annual Gem & Mineral Show	Yaquina View Elementary School multipurpose room 351 SE Harney St., off Hwy. 20, OR
June 2013 20th 9am—5pm 21st 9am—5pm 22nd 10am—6pm 23rd 10am—4pm	Prineville Rockhound Club	Annual Show	Crook County Fairgrounds S. Main Prineville, OR
June 2013 26th 9am—6pm 27th 9am—6pm 28th 9am—6pm 29th 9am—6pm 30th 9am—6pm	All Rockhounds Pow Wow Club of America	Annual Show	Jefferson County Fairgrounds 430 SW Fairgrounds Rd Madras, OR
July 2013 4th 9am—5pm 5th 9am—5pm 6th 9am—5pm 7th 9am—4pm	Sisters, Oregon	Annual Show	Sisters Elementary School 611 E. Cascade (off Hwy. 20) Sisters, OR
July 2013 19th 10am—5pm 20th 10am—5pm 21st 10am—4pm	Lower Umpqua Gem & Lapidary Socie- ty	Annual Show	Reedsport Community Center 451 Winchester Ave. Reedsport, OR
July 2013 20th 10am—6pm 21st 10am—5pm	Darrington Rock and Gem Club	Annual show	Grange Hall 1265 Railroad Ave. Darrington, WA
August 2013 2nd 10am—5pm 3rd 10am—5pm 4th 10am—4pm	Far West Lapidary & Gem Society	Annual show	North Bend Community Center 2222 Broadway North Bend, OR
August 2013 9th 10am—5pm 10th 10am—5pm 11th 10am—5pm	Butte Mineral and Gem Club	Mineral and Gem show	Butte Civic Center Annex 1340 Harrison Ave. exit 127 North Butte, MT
August 2013 9th 10am—9pm 10th 10am—9pm 11th 10am—6pm	Port Townsend Rock Club	Annual show	Jefferson County Fairgrounds 4907 Landes St. Port Townsend, WA
August 2013 10th 9am—5pm 11th 10am—5pm	Maplewood Rock And Gem Club	7th Annual Rock and Mineral Sale	Maplewood clubhouse 8802 196th St SW Edmonds, WA

Westside Board Meeting  
June 18, 2013  
7:30 PM

**Maplewood Clubhouse**  
**8802 196th St SW**  
**Edmonds**

COUNCIL REPORTER, Monthly publication of The  
Washington State Mineral Council



WASHINGTON STATE MINERAL COUNCIL  
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