THE LAKE AGASSIZ ROCK HOUND

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Grand Nephrite Jade Found in Canada

Redacted for educational use from full article seen online at: http://www.geologyin.com/2016/12/the-giant-nephrite-jade-road-in-canada.html

Jade was first identified in Canada by Chinese settlers in 1886 in British Columbia. At this time jade was considered worthless. Gold was the target. Jade was commercialized in Canada in the 1970s. The mining business Loex James Ltd., which was started by two Californians, began commercial mining of Canadian jade in 1972.

Not just for color commentary anymore, "Jade" has become a specific commercial definition. It can represent green, white, black or yellow-brown material made of either a Sodium-rich pyroxene *(jadeite*), or perhaps a Silicate based micro-crystalline group of minerals called amphiboles. *(nephrite*)

Nephrite is tougher (harder to break) than jadeite material. Its crystals flex and stick together better because they criss-cross inside and aren't as brittle. On the other hand, jadeite material is harder to scratch on the surface (7 compared to 6.5 on the Mohs scale.)

Jades occur at or near the contacts of igneous rocks rich in magnesium and iron. This means mainly serpentines in the Canadian setting, along with cherts, or feldspars. Cache Creek and Slide Mountain are two examples of high jade deposits. Their geo-history developed beneath oceans during the dinosaur eras Mississippian, Jurassic, Devonian and Permian.

Until the 1960s, almost all of the nephrite in BC came from modest, smaller deposits. After W.W. **II**, enthusiasm busted out as demand rose for more jade. The eager market found discoveries in Germany and and the Orient, but weren't enough. Soon the mining pressure in Canada depleted what was available, yet led to excited exploration.

The fantastic primary deposits were discovered near the Fraser River area in southern British Columbia, the Mount Ogden arena in central BC and the Cassiar jade fields in the far north.

There are over fifty known nephrite occurrences in BC. These occurrences consist of individual blocks, boulder fields, talus blocks, and in situ occurrences. Today, British Columbia is the main supplier of the China market.

Please Come to the LARC

February 2019 Meeting

Wednesday February 6th at 7:00 pm
Stevens Hall Room 134, NDSU

Program:

NDSU Geology Club Presentation

-also-

Maybe selling their crafts and specimens

Guests are always welcome!

Lake Agassiz Rock Club

President: Frank Svezia
Vice President: Nina Flippance
Treasurer: Terry Mallick
Secretary Chris Patenaude
Youth Group/Pebble Pups: Nina Flippance
Program planning ideas/volunteers welcome

What is our Purpose?

To create an interest and promote a knowledge of all phases of geology or earth sciences in an informal setting.

Where and When Do We Meet?

The Geology Lab, Room 136, on the lower level of Stevens Hall, NDSU, Fargo. Time: 7:00 p.m.

[From N.University Dr. turn West on 12th Ave N. Turn North on Bolley Dr. Drive just past Centennial Boulevard. See **Stevens Hall** on west side of Bolley, 2nd hall from the corner. To park, go into next driveway ahead, on the left. Drive west, then left again behind a laboratory building to Stevens Hall back-lot.]

How Much Are the Dues?

Single person—$20.00; Family—$30.00; College (any school) students and youth (if not a family member)—$10.00 per year. Send dues to Terry Mallick, Treasurer; 416 3rd Avenue S., Moorhead, MN 56560. Or contact him during regular meetings.

What Happens at Meetings?

Our youth group The Pebble Pups attend their own separate group meeting, while the adults cover business. The kids join us for the main Program; a silent auction of collectable minerals; and "lunch".

What are some of our Club Activities?

Field trips are taken to areas ND, SD, and MN. We fundraise at the R.R.V. Fair. LARC sponsors a scholarship to an outstanding Geology student at NDSU each year. Personal Info lessons can be arranged at pre-meeting times. Lots of Show & Tell meeting nights!

What are Our Club Affiliations?

We are affiliated with the American Federation of Mineralogical Societies. (**AFMS**) We are in the subsector Midwest Federation of the Mineralogical and Geological Societies. (**MWF**)

How Do We Keep in Touch?

Facebook _____. Website _____.
The *Lake Agassiz Rock Hound* is our monthly bulletin e-mailed 7 days before meetings. Paper copy free to active members **without** computer access. **$15** dollar subscription/ yr for hardcopy to members who need one in addition to e-addy. **Send news tips and articles** to the editor: Chris Patenaude P.O.Box 434, Perley, MN 56574 or email LakeAgzRC70@yahoo.com. Rock Hound articles may be reprinted if full credit is given, unless otherwise noted.

LARC is an all-inclusive, diverse group. We welcome and respect every person in regard to age, gender, culture, language, social class or disability. Discrimination or ill will towards another will not be tolerated. We are here to support any who love the hobby.

Minutes from January 2, 2018 Meeting

Submitted by Chris Patenaude, Secretary

Short and sweet this month. President **Frank S.** was out of town. Vice President **Nina F.** took the podium to open the meeting.

Secretary's Minutes as printed in the December 2018 R.H. were accepted as published. **Joe S.** raises the approval, **Dan E.** 2nd s.

Treasurer's Report was summarized by **Terry M.**
New Members join tonight: **Amy** and **Scott T.** with son **Owen** all the way from Tower City, ND! Welcome!

Nina's two foreign-exchange students were also in attendance to assist with the Pebble Pups' session (directly following the short adult meeting.) One gal was from Germany and the other young woman was from Italy!

In response to discussion of the Pebble Pups program, **Merle H.** raises a motion for a $50 transfer from the Club account to be made available to the PP's basic operation budget. Seconded by **Dan E.** Ayes!

A motion raised to adjourn so the Pups could get going; Ayes.

Program was great DVD presentation of a PBS special Ice Age Death Trap exploring fossils of Mastodons, Mammoths and other creatures trapped in an archaic sinkhole.

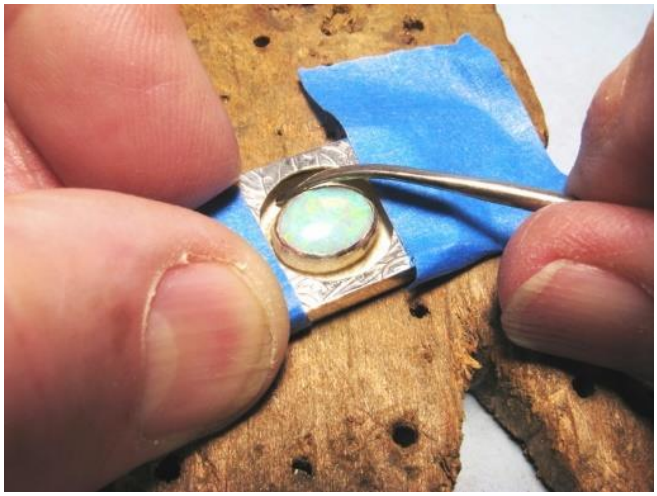
BRAD SMITH'S BENCH TIPS

Protecting Finished Surfaces

I figure that any accidental scratch I make on a piece means about 15 minutes of extra sanding and polishing.

So after finishing major surfaces I typically cover them with some masking tape to avoid any scratches when doing final work like cleanups and setting of stones.

The blue masking tape used by painters works particularly well because it doesn't leave a sticky residue.



Discover new jewelry skills with Brad's "How To Do It" Books
Amazon.com/author/bradfordsmith
A new volume is available now on Amazon. "More Bench Tips" includes 86 additional ways to save time, avoid frustration and improve quality at the bench. See a sample chapter at https://amzn.to/2KCygh4

Russian villagers terrified as 105-foot-wide sinkhole, deep enough to fit a 16-storey building inside, suddenly opens up in a field near their homes

Aerial photos showed the enormous sinkhole dwarfing people and vehicles positioned nearby.

Mushroom pickers from a Russian village suffered 'shock' when they saw how a 165 ft. deep hole had opened up in front of them. The crater, some 105 ft. wide - is deep enough to fit a 16-storey building.

While no-one was hurt, children in nearby Neledino village in Nizhny Novgorod region are having nightmares that similar sinkholes could swallow their homes while they are asleep, say locals.

Russian emergency experts say the phenomenon is natural - and was *not* caused by human created explosions or eruptions. A spate of newly-formed Arctic craters or holes in recent years - especially in Yamal peninsula - are believed to be caused by explosions of pockets of methane gas in thawing permafrost.

Based on local information, the field hadn't been used for two years.

The gaping chasm was spotted in a field by locals as they gathered wild mushrooms, a Russian tradition at this time of year.

'It was pure luck that no-one got injured,' said a local resident. 'We didn't hear anything when it happened.

'But we got really scared as the hole is really huge, and to think that something like this might suddenly appear anywhere is frightening.

'They are due any moment,' she said. 'The sink hole is so close to our village. 'There is no guarantee that another one will not appear right in the middle of it - or worse under a house. 'We are very concerned indeed. 'Children have seen the hole and many are worried the same thing might suddenly happen when they are asleep at night.'

The Emergencies Ministry has fenced off the hole. Yelena, who lives in Neledino (which has 111 residents) said locals were waiting for experts to examine the hole and assess the risk of more suddenly forming.

The village is some 93 miles from Nizhny Novgorod city where England played during the recent World Cup.

Lake Agassiz Rock Hound
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Black and White Rainbows

Sold online under many 'created' names, SiC crystals can be found as "peacock ore gravel" among others.

Silicon carbide (**SiC**), also known as **carborundum** is a semiconductor containing silicon and carbon. "Carborundum" (SiC) is not to be confused with Corundum (Aluminum Oxide gems Rubies and Sapphires).

SiC occurs in nature as the extremely rare mineral moissanite, found in some meteorites. Synthetic SiC powder has been mass-produced since 1893 for use as an abrasive. Grains of SiC can be bonded by sintering [high pressure without melting] to form very hard ceramics that are widely used in situations requiring high endurance, such as car brakes, clutches or plates in bulletproof vests. Electronic use of SiC such as light-emitting diodes (LEDs) and detectors in early radios were invented by 1907. SiC is used in semiconductor devices that use high temps or high voltages. Large single crystals of SiC can be grown by the Lely method (a crystal growth technology) and they can be cut into gems known as synthetic moissanite. SiC with even higher surface area (for more complex techno-apps) can be produced from SiO_2 contained in *plant* material (rather than straight from quartz or agates, say.)

A "boule" is a block of synthetically produced crystal material; **SiC** shown in an industrial ceramic application.

Esthetic Nuances

Give artists a medium and step back!

SiC particles melting into aluminum

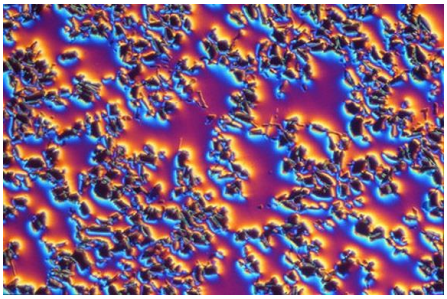

Image was found online as large poster

SiC crystal w/gold on a resin ring

Lab-created moissanite, "white" SiC crystal 'diamonds'.

SiC as a glam broach & earrings