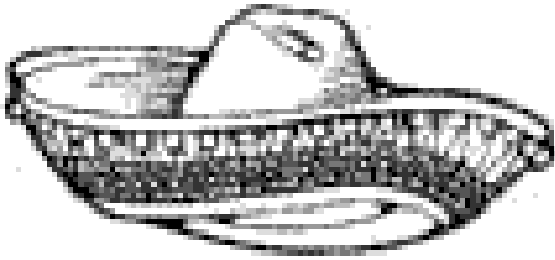


St. Croix Rockhounds
Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

First Class



May, 2001

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

Meetings are held 7:15 PM at the Stonebridge Elementary School on W. Elm St., Stillwater, MN.

May 15th - is this month's meeting date.

The Program is: A tour of the UWRF mineral collection and a display of interesting polarized and ultraviolet light effects on minerals.



St. Croix Rockhound's

LEAVERITE NEWS

Vol. 26, Issue 5; May, 2001

Member of:



&



ST. CROIX ROCKHOUNDS

MEETINGS: Club meetings are held the third TUESDAY of each month, at Stonebridge Elementary School on W. Elm. St. in Stillwater, MN at 7:15 P.M.. Everyone is welcome.

MEMBERSHIP: Full membership for a single person over 16 is \$7.50 per year. Family membership is \$10.50 per year.

OFFICERS:

President	Dick Blom	(651) 735-2323
Vice President	Dave Klinkhammer	(651) 776-8046
Secretary	Elaine Martinsen	(715) 247-3700
Treasurer	Vic Martinsen	(715) 247-3700
Program Committee	Pete Rodewald	(715) 425-5561
	Bill Cordua	(715) 425-9544
	Victor Martinson	(715) 247-3700
Show Committee	Bill Cordua	(715) 425-9544
	LeRoy Betlach	(715) 425-5948
Refreshments	Freya Kask	(651) 777-6371
Librarian	Jeanne Blom	(651) 735-2323
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
	Esther Rodewald WI	(715) 425-5561
Tour Directors	Vi D'Angelo	(651) 665-9067
	Karen Barenz	(651) 776 8525
Liaison Officer	Freya Kask	(651) 777-6371
Newsletter Editor	Doug Olson	(651) 430-9035

The purpose of our organization is to bring together rock and mineral enthusiasts on a regular basis through membership and through pooling of individual knowledge, talents and skills, to improve the lapidary skills of participating members.

Affiliation: American Federation of Mineralogical Societies and Midwest Federation of Mineralogical and Geological Societies.

COMING UP!

May 15th - The Saint Croix Rockhounds meeting starts at 7:15 pm in room 335 of the Ag Science at University of Wisconsin: River Falls (see the map in this newsletter). The meeting will feature the university collection and program will show interesting effects of minerals in polarized and ultraviolet light.

Coming Attractions

May 15: St. Croix Rockhounds meeting starts at 7:15 pm in RIVER FALLS

May 19-20th: WI Geological Society Gem, Mineral and Fossil Show at Hart Park, 7300 W Chestnut St, Wauwatosa, WI. For info contact Erich Salzman 414-464-0607.

June 8-10th: Rocky Mountain Federation Show in Rosewell, NM

June 11-17th: AFMS/South Central Federation Show in Arlington TX

July 14-15th: Agate Days in Moose Lake Minnesota. For info call Al & Diane Hyopponen 218-525-7766.

July 13-15th: Eastern Federation Show in Syracuse, NY

August 17-19th: Midwest Faceters Guild Seminar at Mott Community College in Flint, MI. For info call Harold Rice 810-463-5972 or e-mail: azrice@wwdb.org.

August 20th - September 1st: Northwest Federation Show in Enumclaw, WA

September 7-9th: Midwest Federation Show in Rice Lake, WI

October 12-14th: Greater Detroit Gem & Mineral Show at the South Macomb Community College Expo Center, Bldg P, 12 Miles & Hayes, Warren, MI. For info call 248-398-6693.

November 2-4th: Southeast Federation Show in Pascagoula, MS

Minutes of the Saint Croix
RockHounds
April 17th, 2001

The meeting was called to order by the President, Dick Blom. Two guests were introduced.

The minutes from the April meeting were approved as published in the Leaverite News. The Treasures report was read and approved.

Victor Martinsen presented a bill by Pete Rodewald for framing our Midwest Federation certificate, postage and cost of slide shows and gifts purchased for Christmas gifts in the amount of \$90.00. It was moved, seconded and passed to pay the \$90.00 bill.

Leroy reported on the success of the Spring Rock Show at the Valley Creek Mall in Woodbury. Dick Blom sent a thank you note in appreciation for being allowed to present our exhibit. He expressed the desire to have it there again next Spring. If he does not hear from them he will call.

If you want any books from our library contact Jean Blom, our librarian.

Vi DeAngelo is going to have knee surgery.

A sign up sheet was passed for a field trip to Keokuk, IA and NW Missouri during Memorial weekend. Anyone interested was to sign up.

Freya will check on reserving a spot at the Bayport park for our August picnic.

David Klinkhammer had some equipment for sale. Anyone interested should call him. Brad said he liked the article in the newsletter on polishing. He would now like to read some information on polishing apache tears.

John Parson brought a packet of information on the Midwest Federation show September 7th 8th and 9th. Also information on field trips.

The May 15th meeting will be in River Falls with Bill & Jan Cordua serving refreshments. More information in the May newsletter. Twelve Door Prizes were given out. Dave Klinkhammer provided door prizes. The meeting was adjourned and Victor Martinsen showed slides on his trip to Tunisia, in North Africa. Refreshments followed.

Respectfully Submitted,
Elaine Martinsen, Secretary

May's meeting, while is on the third Tuesday of the month, is a special event and will be held in River Falls – info and map in this newsletter.

Celebrate!

May's birthstone –Emerald.

Emerald was once believed to prevent epilepsy, stop bleeding, cure dysentery and fever, and protect the wearer from panic.

Emeralds were dedicated to the goddess Venus by the Romans because it symbolized the reproductive forces of nature. Early Christians saw it as a symbol of the resurrection of Christ. Emeralds were believed to hold the power to foretell the future in the middle ages.

May's Birthdays:

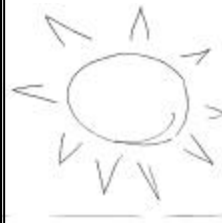
Jeanne Blom – May 5th

Alicia Runia – May 8th

May's Anniversaries:

Bill & Janet Cordua – May 6th

Refreshments: Bill and Jan Cordua will be serving refreshments at the May meeting in River Falls



Our club's sympathies go out to Marie Newlander and family on the death of her husband Rudy Newlander. Rudy was 85 when he died on April 13th and was not only a long time rockhound club member but a World War II navy veteran.

Get well wishes to Vi d'Angelo who recently had knee replacement surgery at Region's Hospital.

Summer Celebrations

June's birthstone – Pearls, Moonstone, and Alexandrite are the three traditional birthstones for June.

Pearls, according to Indian mythology, were dewdrops from heaven that fell into the sea. They were caught by shellfish under the first rays of the rising sun, during a period of full moon. In India, warriors encrusted their swords with pearls to symbolize the tears and sorrow that a sword brings.

Moonstones are believed to be named for the bluish white spots within them, that when held up to light, project a silvery play of color very much like the moon. When the stone is moved back and forth, the brilliant silvery rays appear to move about, like moonbeams playing over water.

Alexandrite is named after Prince Alexander of Russia. The stone was discovered in 1839 on the day of the prince's birthday, in an emerald mine in the Ural Mountains of Russia. Since it is relatively recently discovered there is little tradition or superstition built around the stone.

June's Birthdays:

Janet Cordua – June 6th
Dave Klinkhammer – June 18th

June's Anniversaries:

Elaine &
Victor Martinson – June 24th
June &
Reuben Shalander – June 7th

July's birthstone – Ruby.

In the old Eastern legends rubies were self-luminous and contained a spark of life -- "a deep drop of the heart's blood of Mother Earth". Hindu priests believed that the homes of the gods were lit by enormous emeralds and rubies. Greek legends told the story of a female stork, who repaid the kindness of Heraclea by bringing her a brilliant ruby -- a ruby so bright that it illuminated Heraclea's room at night. Ancient Hindus, Burmese and Ceylonese regarded sapphires as unripe rubies. In the Middle Ages, rubies were thought to bring good health, as well as guard against wicked thoughts, amorous desires and disputes. The ruby was thought to hold the power to warn its owner of coming misfortunes, illness or death, by turning darker.

July's Birthdays:

Dick Blom – July 15th
Bob Carlson – July 23rd

July's Anniversaries:

none



August's birthstone – Peridot and Sardonyx.

The peridot is regarded as the symbol of the sun. The Greeks though it brought dignity upon its wearer. During the Middle Ages, peridot was strung on the hair of an ass and attached to the left arm to ward off evil spirits.

Sardonyx were worn as talismans to guard against evil and bring good fortune. During the Renaissance, sardonyx was thought to bring eloquence upon the wearer and was regarded with great value by public speakers. Sardonyx is a variety of chalcedony and has a banded appearance usually Sardonyx stones usually white and brownish-red. Sardonyx is a relatively common gemstone and as such was popular not only because it was attractive but was also widely available.

August's Birthdays:

Teresa Runia – Aug 18th
June Shalander – Aug 23rd

August's Anniversaries:

Jeanne &
Dick Blom – Aug 15th

This is the last regular Leaverite
Newsletter Until September!!!

Enjoy your Summer.

Geodes in the Tri-State Area (Iowa, Illinois, and Missouri)

Geodes are found in a widely scattered pattern throughout the areas of this most famous district of SE Iowa, West-central Illinois and NE Missouri. They occur in the soil, in the glacial drifts, in solid limestone, and in the shale layers. Apparently their original matrix is in the Mississippian shale formations which blanket all of these areas.

Geodes in the middle western Tri-state area consist of an outer shell (very thin) or a layer of chalcedony on which has been deposited inward in the fashion of a miniature cave or cavern the various other mineral inclusions found in the geodes. Geodes are found in a wide variety of shapes and sizes.

The geodes are most commonly found as spheroidal looking balls, however, they may occur in practically any shape – lenticular, oblong, round or flat. The shells of geodes vary in thickness and possibly over 50% of all geodes picked up by collectors are completely filled with interlaced crystals in a solid mass making them of no particular value. It is the thin shelled variety which are most highly prized by collectors. Geodes vary in size from almost microscopic in size to 400 lbs. and over. The average size are from 2 to 4 inches in diameter. This size usually contains the most highly prized occurrences which are the various mineral inclusions.

These inclusions include silicates, carbonates, sulfates, sulfides and oxides. Quartz crystal lining the hollow cavities are the most common. Next in line are the calcite crystals, in their various shapes and crystal forms. Also occurring is chalcedony. The white powder of Kaolin (the chief constituent of clay) is found in geodes and they are sometimes called ‘Cleopatra’s Powder Box’. Dolomite in a wide variety of hues may also be found as an inclusion. The dolomite usually occurs in its curved crystal form with a pearly to dark brown ocherous mass called ankerite. This possesses a high amount of iron and some of the ankerite is found in the geodes as whitish or grayish, small reniform masses – most of which fluoresce under both long and short wave ultraviolet light.

Malachite has been known to occur but only rarely. Small blue tabular crystals of barite are usually found associated with the calcite and kaolin inclusions. Also small slender flexible crystals of selenite or gypsum may be found.

Sphalerite can be found as an inclusion, usually attached to crystals of calcite or quartz. Occurrences are very isolated.

Chalcopyrite may be found as a mammillary coating on the exterior of geodes and also as small crystals attached to other crystals on the interior. Iron pyrite inclusions occur in a similar manner.

Millerite is found only rarely in geodes as small masses of golden hair-like crystals. However, this mineral is more commonly found in the tri-state area in geode-like vugs and cavities embedded in limestone.

A mineral much resembling millerite in appearance is capillary marcasite which is found in geodes most frequently as elongated tabular striated crystals, with a golden hair-like appearance.

Hematite occurs in geodes as masses of ocherous powder and as stains on the interior of the crystal lined cavities. It occurs many times as pockets or vugs in the surrounding matrix when digging for geodes. The mineral limonite also occurs as stains on the interior and exterior of geodes and their inclusions, as an alteration product of pyrites and ankerite.

A recent find had inclusions of limpid rock crystal, a variety of which are Herkimer Diamonds. However, the local name of dew drop geodes is quickly becoming the name of choice used to describe these geodes. The brilliance and sparkle of the crystals is beyond compare with any other variety of geode. Some “dew drop” geodes have only contained smoky quartz.

On a recent search over 900 geodes were dug out, broken and classified, of which only 6 were the “dew drop” variety. Dew drop crystals are double terminated. - *source and author unknown via Achatas 9/97*

Geode, Iowa State Rock

The geode is found in the Keokuk and Warsaw formation of the Osage series of the Mississippian age rocks. These are found in southeastern Iowa, western Illinois, and northeast Missouri. The upper part of the Keokuk formation and the lower part of the Warsaw formation contain the world famous Keokuk geodes.

Although many theories exist on the formation of geodes, the most accepted and the most scientifically sound is the J.B. Haynes theory. The theory deals with the two factors. These are the acidity (pH) and the oxidation-reduction principle (the main point here is that a negative Eh lacks oxygen). In the Mississippian age the area around Keokuk, Iowa, was under a deep sea. The floor level of this sea, at areas of high pH and negative Eh caused a calcite rich formation. With the lack of oxygen, relatively pure calcite nodules formed just beneath the surface of the sea floor. Through time a regional uplift occurred due to the movement of the Mississippi River Arch. This uplift resulted in the retreat of the sea during the upper Warsaw times. After this the calcite concretions were dissolved by the leaching action of acid ground water. During this time the primary minerals found in geodes were crystallized. These minerals are kaolinite, calcite, quartz, pyrite and sphalerite.

Final compaction was during the Pennsylvanian times when the area was again under water. During this period secondary mineralization occurred. These secondary minerals include aragonite, barite, calcite, chalcopyrite, dolomite, goethite, and marcasite. Since Pennsylvanian time some minerals have altered to form different minerals. These include hematite, malachite, pyrolusite, selenite, and smithsonite.

Even now geodes are developing as evidenced by water and gases found in the interior of the geodes. Water is absorbed into the geode through osmosis and when the shale is dry around the geode the water drains out through reverse osmosis, leaving behind minerals to continue the growth of crystals inside. This is why so many are found solid. *from Agateer via Badger Digger's via the Drift 5/92 via Achatas 9/97*

"A ROCK ODYSSEY 2001"



61st Annual Midwest Federation Show
hosted by

Northwest Wisconsin Gem & Mineral Society

Barron County Fairgrounds - Rice Lake, Wisconsin

September 7 - 8 - 9, 2001

Friday 1 - 9 Saturday 10 - 6 Sunday 10 - 5

Demonstrations, 1 Day Swap Area (Saturday), Youth Activity Area,
Rock/Mineral ID, Large Lake Superior Agate Display, Super Fossil Display
~ lunch will be available on grounds ~

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For more information contact either show co-chairmen:
Roy Wickman, 1127 7th Street, Almena, WI 54805 phone (715)357-3223
Pamela Hecht, 1074 19th Ave, Cumberland, WI 54829 phone (715)822-2974

~ Largest Show of it's kind in the Midwest ~

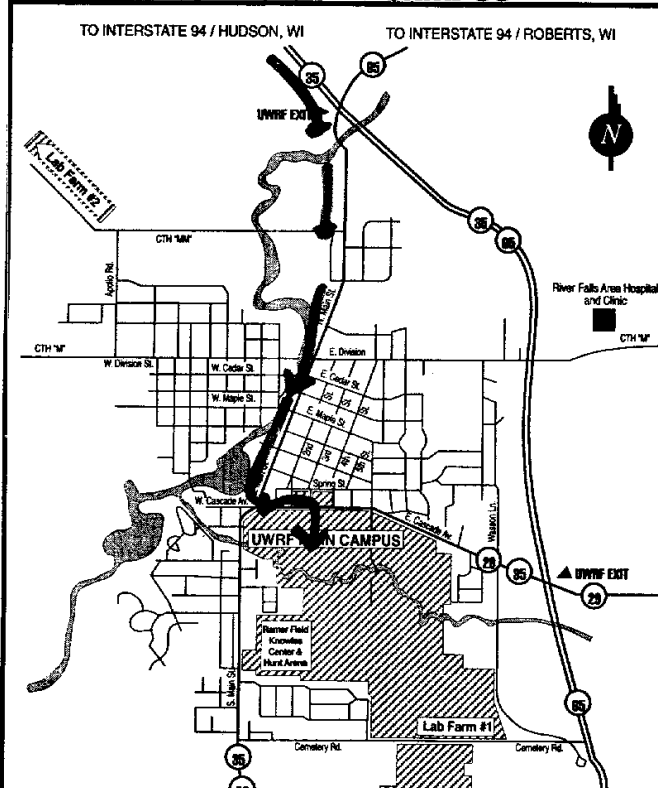
St. Croix Rockhounds May Meeting: Open House at the Geology Unit, UWRF

The meeting will feature displays and collections in the geology unit at the University of Wisconsin-River Falls and a program on some interesting effects minerals can show in polarized and ultraviolet light.

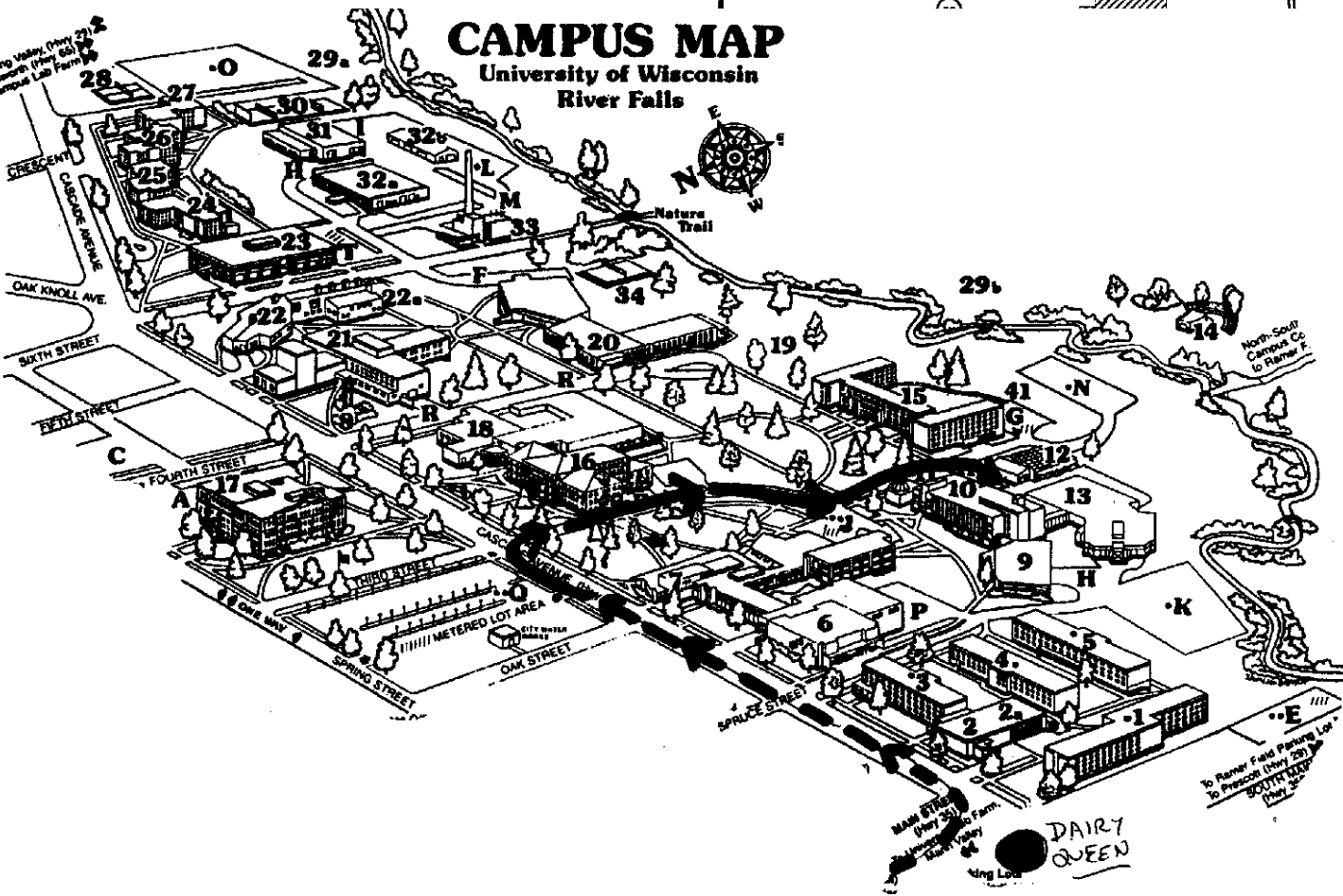
The meeting will start at the usual time (7:15 pm) but not at the usual place. It will convene in Room 335 of the Ag. Sc. Building on the UWRF campus in River Falls, WI (bldg. #10 on the campus map).

Directions: take I-94 E into Wisconsin. Take exit 3 – south on Route 35. In 6 miles, take the exit marked “Highway 65 North – Downtown River Falls”. Keep to the right onto Main Street. Follow Main Street about 2 miles into River Falls. At the third traffic light (Dairy Queen on your right), turn left onto Cascade Street. Take the second road to the right into campus. The road will wind around and past the Ag. Science building, on the right. Park FREE in the lot behind the building (between the building and the greenhouses [bldg #120]). Go in the doors on the far end of the parking lot. Go right, then left to the elevator. Take the elevator to the third floor. Nearly straight ahead will be room 335.

RIVER FALLS, WI / UWRF CAMPUS



CAMPUS MAP University of Wisconsin River Falls



Stolen Gems

St Croix Rockhounds Leaverite News

Hint: Tin oxide, acid, give rhodochrosite polish:

When cutting rhodochrosite it is important that only water be used on the saw. An oil base product will be absorbed and the stone's color deadened. After the material is ground to form, sand first on 220 grit, wet; then on 400 grit, wet. For best results use worn sanding cloths.

Tin oxide is perhaps the best polishing agent for rhodochrosite. Some lapidaries report good results from tin oxide that has been mixed with a small amount of vinegar and used on a felt wheel.

Another method is to mix two teaspoons of tin oxide and one level teaspoon of oxalic acid in half a pint of water and use on a leather buff. In using this formula, be sure that not more than a third, by volume, of acid to tin oxide is used or the stone will be damaged. This polishing formula also works well on marble. *by Bob Daniel from Georgia Mineral via the Geode via Cedar Valley Gems 11/00 via Achates 5/01*

Hint: A non-foaming detergent, such as borax compound will make your grinding wheel cut much faster. Try trisodium phosphate (TSPO), or one of the controlled suds detergents that are designed for automatic washers. Use about one heaping teaspoon of detergent to each five gallons of water that you drip on your grinding wheel. It helps in your tumbler also because the foam action tends to hold the grit in suspension and prevents it from settling. *from the Geode via Pick & Dop Stick via The Trilobite 5/01*

Hints by Don Brandt, ACG&MC Club Member:

Repair wood jaws on your Diamond saw with hickory instead of maple. Hickory is tougher and will last longer.

Use bronze welding rod for marking on slabs. It will last longer.

When you are done sanding your jade stone and ready for polish, go back to the fine sander (600) for another 5 minutes and you'll get a 50% better job. *via Hidden Treasures 5/01*

Is It Really Jade?

Lapidarists and jewelers should constantly attempt to call gemstones and rough materials by their correct names. The term jade is applied to many non-jade stones, such as:

Korean jade is bowenite, a hard variety of serpentine;

Transvaal jade is a massive variety of green, grossular garnet;

Amazon jade is aventurine;

American jade is a rock – a mixture of idocrase and grossular;

Australian jade is chrysoprase;

Colorado jade is green microcline;

Jasper jade is green jasper

Flukien, Manchurian and Honan jades are all soapstone;

Mexican jade is green-dyed marble or calcite;

Oregon jade is dark green jasper;

Silver peak jade is malachite;

It would be clearer to beginners if jade were called jade, malachite called malachite, aventurine called aventurine...

from Carmel Valley Prospector via Breccia 5/98 via Golden Spike New 3/01 via Rock Chips 4/01

To double your money, take it out of your wallet, fold it in half and put it back.