



Ore-Cutts

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GEM TREES

By Wayne Mills, Member, Orcutt Mineral Society

About 500 years ago, the Japanese had the idea of bringing nature inside their homes by collecting naturally dwarfed trees and bushes. Later they figured out how to begin with young trees and maintain their dwarf size. This art became known as Bonsai.

Though I could not find any information on the history of gem trees, I believe that the Art of Bonsai must have inspired their initial creation. Where Bonsai are tricky and time-consuming to maintain, and only come in a limited variety of shapes and colors, the shapes and colors used on Gem Trees are only limited by the imagination of their creator, and they are a lot easier to maintain!



Coastal Cypress Version 1 by Paul Patrick

While I admit to a lack of expertise on creating Gem Trees, Ming Trees or Jewel Trees (I have been at it about 1 week), I wanted to share this interesting facet of our hobby with you and perhaps spark another gem tree artist in our society. You have perhaps seen some of the work of Paul Patrick, a Society member who is one of the best gem tree artists whose work I could find on the internet. A search with the browser Google for "Gem Trees" yielded pages and pages of sites. While many of these were duplicates, there was quite a variety of commercial sources for these objects d'art. Paul Patrick's website "Gemtrees.com" was a nice place to start my search for information on this topic.

The Gem Tree Story (from Paul Patrick's Gem Tree site)

"About five years ago, I watched a traveling salesman twist several strands of copper wire into the form of an attractive tree which he sold to local gift shops for between five and ten dollars. Since I had always admired free-formed trees that abound around the Paso Robles, California area and the Elfin Forest in Los Osos, California, I thought I would try my hand at forming an oak tree of copper wire. Although I have no formal training in art (my Bachelor of Science Degree is in Hotel/Restaurant Management), they actually began to look like miniature Bonsai trees."

"After two years of research and development, a gem tree has evolved to include over 200 feet of copper wire, several types of space age adhesives, an infinite array of gem-stones and several types of trees."

[Patrick's trees sell for up to \$400, both domestically and overseas.]



Paul Patrick's Gem Tree Display at the 2002 Rainbow of Gems Show

How the Gem Trees are Made

The trees are 6 to 12 inches in height. Big ones have up to 24 branches, and small ones about 8. The trunk of the Gem Tree is made of 17-gauge copper wire. This is an odd size, smaller than 16-gauge and larger than 18-gauge (duh!) that is commonly sold in craft and hardware stores.) The wire is cut, stretched straight and bundled together, then twisted into shape and coated with textured silicone (RTV gasket material, sold at auto part stores as a gasket material) to produce a bark like effect. The RTV is mixed with colorant to produce a more bark-like texture. The twisted wire does look a little hokey...especially if you are going for the tranquil, bonsai effect. After it sets for about a year, RTV will crack and begin to look more like bark.

For the tree I made, I used 1 roll of 18-gauge wire (about \$3.95), a rock that I found (free!), a bag of tumbled jade chips (\$1.00), some rhodochrosite chips I had (about \$2.00 worth), a tube of 527 cement (\$3.69), and some RTV (\$___). From the 15-yard roll of wire I bought, I got 60 pieces 9 inches long. I think Paul uses about 98 pieces of wire to produce his 8-inch tall trees with 11 branches of wire bundles averaging about 9 wires, and probably about 200 wires in his larger trees. I am guessing that the length of the wires he uses in the 8-inch trees is about 12 inches.

The completed tree can be mounted on a large piece of matching gem grade stone as the amethyst tree Paul made, or on other

natural (or not) rocks that strike your fancy. Maybe even a piece of Petrified Wood! The base Paul uses is usually a color-matched piece of highly polished marble, 24% lead crystal or granite. Each of the approximately 200 to 5000 gemstones he uses is individually inlaid onto the copper wire with an epoxy (527) that makes the tree almost indestructible. The wire is crimped where the stones are to be added for retention.

Some available gemstones are: rose quartz, amethyst, jade, carnelian, unakite, sodalite, blue lace agate, amazonite, green aventurine (India), rhodonite, garnet, turquoise, lapis lazuli, malachite. Surely, you can think of others like serpentine from Jade Cove, crushed rhodochrosite, even tiny pieces of milky quartz.

Other ideas using the tree theme are small trees on rocks for tree ornaments (3" x 3"), larger bare wire trees on rocks to hang earrings on, framed pictures with wire trees in the foreground and rocks and pictures in the background, or trees with shells instead of rocks at the base and for the "leaves." You can also make little tree pins (up to 2") or tiny tree earrings with gold or silver wire and tiny rock chips. See Bunymagic.com for pictures of these ideas.

A quite ornate tree was at Kitchener's Christkindl Markt, a beautiful piece, but not entirely wire (it was a 14k Christmas tree, complete with presents, decorations, and gem ornaments, displayed in a glass dome measuring in total 8" high).

To get an inspiration for the kind of tree you want to make, look at a book on Bonsai, or a book about trees. The Audubon Field Guide to North American Trees has nice silhouettes of bare trees in their description section. The Sunset Western Garden Guide can be useful too.

SUPPLIES

Gem Tree Wire: Gold, Silver, Black, Green, Red, and Copper wire. 24 gauge JD001; (30 yd spool) \$3.50 JD002; (40 yd spool) \$4.50

Gem Chip Beads: Affordable strings of beads that may be cut and used for the stones for your trees. By running your wire through holes in the beads you save time and material in the building of your trees and the only place you use glue is on the base of your tree. This probably does not look as realistic as the glued variety however. Available strings of gem chip beads cost \$4.00 and \$5.50 each. Small rock (un-drilled) is available

Glue: 527 MULTI-PURPOSE cement for all materials is flexible, transparent and quick drying. Screw cap for sealing. 588-01; 1 ounce tube (precision tip); \$2.35, 588-02; 3.2 ounce tube; \$3.90

Local sources for beads, chips, wires and glue are:

Law's Hobbies at 855 Marsh, SLO

Unique Beads at 1033 Chorro, SLO

Rainbow Beads at 1020 Grand, Grover Beach
Beads, Beads, Beads at 781 Price Street, Pismo Beach.

References:

Beginner's Gemtrees by Mae Hoskins. Publisher is JEMS Inc., 2293 Aurora Rd. Melbourne, Fl 32935 (407) 254-5600. This book is about 6 years old.

Jewel Tree Making by Lortone (1-206-789-3100) #580-32. This is a step-by-step course in making gem trees. It covers selection of materials, design, and construction. Their website is <http://www.lortone.com>

Highway Cleanup

Thank you to the 12 volunteers who helped at the September 21st Highway Cleanup. The next scheduled cleanup will be on November 16th at 8 am.

OMS Monthly Breakfast

Please join us on Saturday, October 26th at 8:30 a.m. for the OMS Breakfast. It will be held at Baker's Square in Santa Maria. This is an opportunity to share information, enjoy one another's company, and have a great meal.

Wes's New Tooth

Wes has a new specimen in his collection, which he claims is a Sperm Whale tooth with scrimshaw on it. Being a noted art critic, he found "mistakes" in the drawings. Can you find any? The response with the highest number of correct answers will win a prize to be awarded at the November General Meeting.



Wes's Tooth Side A



Wes's Tooth Side B

Dick's Field Collecting Tips

Some OMS members are discovering the utility of a 12 volt emergency power supply for night collecting. (Why are they collecting at night? I'll leave that up to your imagination.)* Here's the trick: connect a small 12 volt DC to 115 volt AC inverter to the power supply, then hook up your 110 volt light. It works great! You can also recharge the power supply from your vehicle while returning to camp using the inverter and your vehicle's 12 volt power connector (is it still politically correct to call it a cigarette lighter?).

October General Meeting

Wayne Mills will present a show entitled, "How to Start Your Own Lapidary Business for \$50.00". We will be enjoying pies provided by Vic Jonas, Berthelots, Lingerfelts, and Shields.

* Why, to find fluorescents, of course (what were YOU thinking?)

Orcutt Mineral Society Board Meeting

Mussell Senior Center, Santa Maria CA
September 3, 2002

The Board Meeting was called to order by President Dick Shields at 7:06 p.m. Board Members present were Bill and Deborah Hood, Wes Lingerfelt, Wayne Mills, Don Nasholm, Marshall Reeves, Dick and Bess Shields.

Minutes of the August 6 Board Meeting, and the August 13th General Meeting were approved as published.

Treasurer's Report: Wes Lingerfelt presented the Treasurer's Report. It was accepted as read.

Committee Reports:

Club Breakfasts: Dick Shields reported that the monthly breakfast meetings will continue since there appears to be renewed interest in the event.

Highway Cleanup: Marshall Reeves said that the next cleanup will be on Saturday, September 21st at 8:00 a.m.

Nominating Committee: Bill Hood has contacted the following members who have agreed to run for office:

President - Wayne Mills

Treasurer - Wes Lingerfelt

Secretary - Bess Shields

President-elect - Debbie Hood

Board: Don Nasholm Marshall Reeves

Sylvia Nasholm Bill Hood

Geary Sheffer Lucky Virgin

Linda Virgin

Other nominations for all offices will be taken at the September General Membership Meeting on September 10th.

Correspondence:

- Sun Valley Indian School newsletter.
- Mineral Messenger newsletter from San Luis Obispo Gem & Mineral Club.
- Rocky Review newsletter from Conejo Gem & Mineral Club.
- Rockhound Notes newsletter.
- Dinny's Doins newsletter.
- Metal Stone & Glass magazine.

Old / unfinished business:

Dick Shields reported that numerous e-mail newsletter exchanges are coming to our club mailbox. Wes Lingerfelt will give a report at the General Meeting about securing our own Web Site through a web service.

Dick Shields said that the Lapidary Room seems to be a dead issue. Other options will continue to be explored, and member suggestions for alternate sites are sought.

New business:

Dick Shields asked for information about the General Meeting raffle. Marshall Reeves said that there is an accounting. Much discussion about the number of prizes, length of drawing process, etc. occurred. Don Nasholm will begin bringing OMS tee shirts, patches, pins, and assorted other club paraphernalia for door prizes at the General Meetings.

Marshall Reeves sought agreement from the Board to purchase copies of Gemstones of the World for donation to the 4 libraries who hosted our OMS exhibits during July 2002. The motion was moved, seconded, and passed.

Dick Shields reported that Santa Lucia Rockhounds want exchange field trips with OMS. Also, Santa Barbara invites us to their general meetings, and wants to exchange field trip information.

The Program for next week's meeting will be "Making Gem Trees" by Wayne Mills. The display competition this month is on homemade jewelry.

The Board Meeting was adjourned at 8:35 p.m. by President Shields.

Respectfully submitted,

Bess Shields, Secretary, OMS

Orcutt Mineral Society General Meeting

Mussell Senior Center, Santa Maria CA
September 10, 2002

Call to Order at 7:02 p.m. by President Dick Shields.

Invocation was given by Bess Shields on "Free Us".

Flag Salute was led by DeeDee Magri.

Lynda Virgin reported that 20 members, and 12 guests were present.

Minutes of the September 3 Board Meeting were approved as read.

Treasurer's Report was read by Wes Lingerfelt, and approved as read.

Committee Reports:

• Gem Show: Dick Shields wants feedback from members on the successes of the 2002 Gem Show, and ways to improve the show next year. Wes Lingerfelt wants to have the club grade more of the field for next years' show.

• Ore-Cutts: Dick Shields invited visitors to get a bulletin during refreshment time, and give him their current e-mail address to receive the bulletin next month.

• Sunshine: Debbie Hood reported that Hal Nuernberg passed away last week.

• Refreshments: Bess Shields thanked Lingerfelts, Virgins, Al Wilcox, Reeves, and Shields for donating cakes tonight.

• Field Trips: Wayne Mills announced that no one has signed up for the Page Museum trip yet (Oct. 26th). Wayne will be at Camp Paradise this weekend. Afton Canyon trip is on September 27-29. Jade Festival takes place on October 11-13 in Pacific Valley. Dick Shields mentioned the Santa Barbara Museum of Natural History lectures on "Hawaiian Hotspots", and "The Jade Story". Wes Lingerfelt hopes to see OMS members at the Santa Lucia Rockhounds Show on 21-22 September in Pioneer Park in Paso Robles.

• CFMS: no report.

• Highway Cleanup: Marshall Reeves announced the next Highway Cleanup on September 21st at 8:00 a.m. at Highway 101 and 166. Breakfast at Omelets and More will follow.

Correspondence:

(Show fliers and notices announced under correspondence are at the hostess table following the business portion of the meeting, and during refreshment time, for members to view.)

- Sun Valley Indian School newsletter.
- Mineral Messenger newsletter from San Luis Obispo Gem & Mineral Club.

- Tule Smoke Signals newsletter from Tule Gem & Mineral Society (Visalia CA).
- Public Lands Advisory Committee Report.
- Rocky Review newsletter from Conejo Gem & Mineral Club.
- Rockhound Notes newsletter.
- Rockonteur newsletter from Santa Lucia Rockhounds.
- The Rock Slab News from Searchers Gem & Mineral Society (Anaheim CA).
- American Lands Access Association newsletter.
- Moab Points & Pebbles Club Gem and Mineral Show announcement.
- The Agatizer newsletter from South Bay Lapidary & Mineral Society (Torrance CA).
- Breccia newsletter from Santa Clara Valley Gem & Mineral Society.
- Metal Stone and Glass magazine.

Old / unfinished business:

Dick Shields is exploring the possibility of a joint OMS/adult education class through Hancock College. He has contacted the coordinator and geology instructor who are both enthusiastic about this idea. More information as this develops.

New business:

Bill Hood reported that the following individuals have agreed to accept nomination for the 2003 Board.

President:	Wayne Mills
President elect	Debbie Hood
Treasurer	Wes Lingerfelt
Secretary	Bess Shields
Board: Sylvia Nasholm	Lucky Virgin
Marshall Reeves	Lynda Virgin
Geary Sheffer	

Formal nominations from the floor will be made at the October General Meeting.

Following the break for refreshments, Wayne Mills gave a talk and demonstration on "Gem Trees".

The raffle was held after the program. Meeting was adjourned at 8:36 p.m. by President Shields.

Respectfully submitted,
Bess Shields, Secretary, OMS

The Wanderer, October 2002:

Learning, Learning All the Time

We recently had the opportunity to visit "Smogville" on a business trip. We decided to combine business and pleasure, with stops at both the LA Museum of Natural History and the Page Museum/La Brea Tar Pits.

After an early lunch in the Curator's Café at the Museum of Natural History, we headed for the Gems and Minerals collection. The layout provides California specimens at the front entrance, hands-on exhibits and a short movie a little further in, and brightly illuminated, quality minerals in the center of the exhibit

area. For visitors who have more time to spend, and perhaps know a bit more about rocks, there are detailed exhibits on mining and gold, descriptions of chemical/mineral families, gemstones from around the world, and the vault (which I'll have to visit next time). I was impressed by the spectacular rutilated quartz sculpture in the hall!



Huge (over 6') Rutilated Quartz Sculpture

The Page Museum features important Ice Age skeletons, flora, and fauna preserved in the sticky tar. At the entrance is a movie theater with an introductory film describing tar pit formation, and features the critters it attracted. The numerous dioramas and instructional wall displays provide visitors with information about recent research.

Paleontologists working behind glass walls can be observed as they clean, sort, classify, and file specimens. Ask the front desk attendant for a "Study Guide to the Fossils of Rancho La Brea". It's geared for teachers, scout leaders, and resource people.

After exiting the hall, head west toward the research tar pit site. "PIT 91" is the longest on-going tar pit excavation site in the world.

It's funny how time flies when you're having fun. We spent all day exploring Mother

Nature's beautiful creations, and it seemed like only minutes.

Check out the museums at:

Natural History Museum: <http://www.nhm.org>

George C. Page Museum/La Brea Tar Pits:

<http://www.tarpits.org>

Happy Hunting,
Love, Bess

PS. Don't forget that Santa Lucia Rockhounds are having a Page Museum/La Brea Tar Pits bus trip on October 26th, and have invited us to join them. Call Wayne Mills at 481-3495 for details.

The following article is a reprint of Gene Knoske, "Fluorescent Activators," which originally appeared in *Mineral Notes and News*, May 1953, pp. 24, 26. We are reprinting it here to help our members understand the curious phenomenon of fluorescence.

Fluorescent Activators

By Gene Knoske

Wisconsin Geological Society

Concerning the ultra-luminescence of various minerals, I have frequently been asked why minerals fluoresce different shades of colors, and why negative color responses occur from exactly the same localities where beautiful fluorescent specimens are found. My curiosity being aroused by this, I set out to find the answers, not only for myself, but for others equally curious. After reading many sources and inquiring from various people, I have collected the following facts:

Luminescence in most of the common minerals is caused by a minute amount of impurity. The impurity upsets the molecular structure of the minerals, giving them the ability to be affected by ultraviolet radiations. This impurity, or as it is termed, this activator, is one or more of the following metallic elements: manganese, chromium, copper, uranium, thallium, or the rare earths.

Calcite and willemite from the Franklin, New Jersey, district owe their fluorescence to a manganese activator. Pectolite, calcium-larsenite, and clinohedrite are other New Jersey minerals owing their fluorescence to manganese. The yellow-green fluorescence of moss agate and chalcedony from Sweetwater County and various other localities is attributed to a uranium activator. The rare earth, samarium, is the activator in most blue fluorescing fluorite.

The amount of an activator present plays a large part in the shade of color in fluorescent minerals. For example, calcite from Franklin, New Jersey, will fluoresce red only when the manganese activator is present in amounts from 1 % to 5 %. The luminous ability of the CaCO_3Mn -phosphor is not destroyed until the concentration of manganese exceeds 10%. Calcite with about 3.5% manganese gives a maximum brilliance. The fluorescence declines gradually with a greater manganese content, reaching zero with the presence of about 17% manganese.

Calcite free of manganese fails to fluoresce. The presence of iron and magnesium in calcium tend to act as inhibitors of luminescence. Most calcites having the proper concentration of manganese, to exhibit luminescence, are distinctly crystalline, or show a marked cleavage. Although the manganese-free calcite does not fluoresce, the manganiferous calcites and dolomites from Franklin, New Jersey, fluoresce in colors ranging from a pale pink to a bright red.

Thus, in conclusion, it can be said that the activator plays an extremely important role in the ultra-luminescence of minerals. Determining factors are the concentration of the activator, the type and amount present, and whether quenching elements are present producing a negative fluorescence. -- From the TRILOBITE

Note: Local specimens that fluoresce include fossils, calcite, and thundereggs. For more information, contact Ralph Bishop or Dick Shields.

Official Stuff

OMS Purpose

Founded in 1958, and is named after William Orcutt, a geologist and civil engineer who worked in the Santa Maria Valley as a district manager for Union Oil Company in 1888. In 1889, Orcutt discovered the fossil wealth of the La Brea Tar Pits, one of the most significant fossil finds in paleontological history. The Society is a non-profit club, dedicated to stimulating an interest in rocks and minerals. The club offers educational programs, field trips, youth activities, and other opportunities for families and individuals to pursue an interest in collecting and lapidary treatment of rocks, fossils, gems, minerals, and other facets of Earth Sciences. In addition, a goal of this Society is to promote good fellowship and proper ethics in pursuit of the society's endeavors. Operating rules have been set forth to guide the Officers and members of the Society in accomplishing these purposes. Affiliations: California Federation of Mineralogical Societies and American Federation of Mineralogical Societies.

2002 OMS Elected Officers

President	Dick Shields	(805) 937-0357
President Elect	Wayne Mills	(805) 481-3495
Secretary	Bess Shields	(805) 937-0357
Treasurer	Wes Lingerfelt	(805) 929-3788
Immediate Past President	Glenda Reeves	(805) 733-2775
CFMS Representative	Wes Lingerfelt	(805) 929-3788

2002 OMS Board Members

Bill Hood	(805) 481-6860
Debbie Hood	(805) 481-6860
Don Nasholm	(805) 481-0923
Sylvia Nasholm	(805) 481-0923
Marshall Reeves	(805) 733-2775

Web sites of note:

October 2002

Wes Lingerfelt's sphere site:

<http://www.sphereheaven.com>

Burgess Shale Fossil Sampler:

<http://www.nmnh.si.edu/paleo/shale/index.html>

Sweet Surrender at Mt. Ida:

<http://www.arcrystmilne.com>

National Forest Lands Mineral Inventory:

<http://www.fs.fed.us/oonf/minerals/mgsite.htm>

Russian Paleontological Institute:

<http://www.ucmp.berkeley.edu/pin/pinentrance.html>

Minerals from Kidney Stones:

<http://www.uwrf.edu/~wc01/kidney.html>

Do you have email? You can save the club 63¢ per month by receiving your copy of *Ore-cutts* via email. Notify us by sending a message to oms@ix.netcom.com.

2003 OMS Board Nominations

Nominations will be taken from the floor at the October 8th General Meeting. If you wish to volunteer, or if you have further questions about running for a Board position, please contact Bill Hood.



OMS Logo

A rock saw cutting a piece of stone was selected when the first bulletin, *ORE-CUTTS* (namesake, William Orcutt) was first published in 1966. Member Helen Azevedo was the first editor.

CHOCOLATE CHIP MINING

(idea borrowed from Fredericksburg TX Rockhounds)

Chocolate Chip Mining is a hoot! It's a contest that teaches kids how a mine operates and functions on an economic level. Everyone starts with an equal amount of play money. With that they "buy" their mine and tools.

The mines consist of a variety of chocolate chip cookies. The idea is to buy a mine with as many chocolate chip cookies as possible (of course, some brands cost more than others). You also purchase your mining tools. These are various things to dig into the cookies: toothpicks, unbent paperclips, etc. These are also set at different prices.

Now the fun begins. Each person traces the outline of their cookie on a napkin, or paper plate and when the signal is given, they get out as many of the chocolate chips as possible. Some people dig out individual chips, others pulverize the cookie.

When the mining operation is done, all the non-chocolate cookie crumbs must be inside the original cookie outline (as per EPA requirements ; ^). Points are taken away for stray crumbs. Next, all the chocolate chips are weighed on a gram scale, and each miner is paid money according to the weight of the chips (minus

any reclamation demerits). Of course, the one with the most money wins.

To contribute news, articles, opinions or information the rest of the club needs to know, send a letter to the OMS P.O. Box, send e-mail to oms@ix.netcom.com, or call Dick and Bess at 937-0357.

Save the Dates

- Jade Festival in Pacific Valley on October 11-13.
- La Brea Tar Pits and Page Museum on October 26.
- Cayucos Gem and Mineral Show on Nov 2-3.
- OMS Annual Meeting on Dec 7.

Wes Lingerfelt has a new tooth (and he didn't even have to pay the dentist). See details on page 3.

Orcutt Mineral Society
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ADDRESS CORRECTION REQUESTED