

Diabolo



Nov. '01

**Contra
Costa**
MINERAL & GEM SOC.
WALNUT CREEK, CA

Diablo Diggins

Program for November

By Ann Matthews, Vice President-Programs

The November Program is by **Dennis Shelley**. I still haven't heard from Dennis about what his subject will be, but he always has a good program. Look forward to see you all at the General Meeting.

Refreshments to be brought to the meeting are--update for November--**Dave Cunningham, Susan Dennis, Robert Duncan, Duaine Eggleston, Bryce Elsworth, Kaayla Fox**. If you can not make the meeting or bring something, please make arrangements with another member.



The October Program was Contra Costa M&GS's Annual Auction. As promised the Annual Auction provided a fun evening and it raised money for scholarship. Thanks to all of you who remembered to bring an interesting item to donate to the auction.

Next Meeting is November 9th at 7:30 pm, at the First Presbyterian Church, 1965 Colfax Street, Concord. Corner of Salvio & Colfax Strs. Free parking at City of Concord garage on Salvio.



Election Of Club Officers

By Joe Yarbrough, President

The following club members have volunteered to staff club positions that are needed for the efficient operation of our society.

President-Joe Yarbrough

First Vice President (Programs), Ann Matthews

Second Vice President (Field Trips), Hazel Woolsey

**Secretary, Sharon Neuhauser
and Treasurer. Connie Klein**



Show Corner

By Sam Woolsey, Show Chair

NOVEMBER SHOW CORNER
By the time you read this, the Contra Costa Mineral & Gem Society's year 2001 show will be "in the can," as they say in the movie industry. And now is too early to estimate the "box office" take.

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Diablo Diggins
Contra Costa Mineral & Gem Soc.
PO Box 4667
Walnut Creek, CA 94596

However – it IS time for me to express my undying gratitude to all for their help, interest, and cooperation in putting this year’s show together. Couldn’t have been done with them.

A few of the most generous contributors were: **George & Ann Matthews**. Matt spent at least two full 40-hour weeks with me building the new show cases.

Connie Klein allowed us to use her “barn” and side yard for all the work – couldn’t have been done anywhere else! **Jim High** painted the trailer, and **Tom Umholz** has painted ‘ole Diablo Dan on the sides. **Glen Hubbard** participated as much as his bum leg would allow. **Charlie Bon** was a regular at the work parties.

Show time brings out **Mary Ann King** (front desk), **Linda Minnich** (wheel of fortune), **Hazel Woolsey** (grab bags), **Ann & Hazel** (kitchen prep), **Mary Crenshaw** (childrens’ activities), **Mary Hicks** (Friday night dinner and fluorescent show guide), **Dick Pankey** (lectures), **Brownie Cameron** (demonstrators), **Charlie Bon** (set-up & tear-down), **Betty Pankey** (table skirting on set-up), **Ann Matthews** (displayers) – and, of course – our demonstrators and displayers, themselves, too numerous to mention here.

And a special thank you to **Scott, Sherry, and Joey Pevahouse** for snack bar and kitchen management.

Come to the show – and show your appreciation for all the work these fine folks have contributed. SEE YOU THERE!

Property Report & the Show

Report by **Glen Hubbard**, Property Chair

After several weeks and many hours of work, the trailer and the show cases and other equipment are now in great shape for the upcoming show. Thanks to **Hawkeye Hicks** for pulling the trailer and backing it one block into **Connie’s back yard**, thanks to **Joe Yarbrough, Lee King, Charlie Bon, Mary Hicks, Tom Umholtz, Dick Pankey**, for the many hours of work. The trailer looks

great thanks to the work of **Tom** scrubbing and priming the rust spots and painting

Diablo Dan on both sides of the trailer with the help of **Matt Matthews**.

Thanks to **Jim High** for the great paint job he did on the trailer. And a very special thanks to **Sam Woolsey and Matt Matthews** For the many many hours they put in on building the new show cases and repairing the old cases. And thanks to **Hazel Woolsey** for all the phone calls she made getting the work parties together. I know how hard they worked as I was there watching them.

We are putting some new rules in place this year on the show cases. There will no nails, tacks, screws, two sided tape, or scotch tape used to secure any thing inside the new and old cases, masking tape will be allowed but it must removed when the case is taken apart for storage. The cases had to be repainted because of the damage caused to the cases last year.

I am looking forward to seeing you at the show, as we need a lot of help for the setup and tear down.

Field Trips



By **Hazel Woolsey**, Vice President-Field Trips

Thanksgiving COOP Trip: Barstow area. Mother Lode Club. Contact Will Corey. 209-383-5037 FIELD TRIPS

COOP trips are rescheduled frequently! ALWAYS call before driving a long way for nothing! To assist, the COOP group has established a web site where their latest field trip information can be accessed.

<http://www.coop.freecservers.com/coop-fieldtrips.html>.

Thanksgiving COOP Trip: Barstow area. Mother Lode Club. Contact Will Corey. 209-383-5037

Many thanks from **Grab Bags & Wheel of Fortune** to **Glen McKenzie** for polished rocks and to **Betty Jerde** for wire necklaces.

REPORT: Clear Creek Trip (Oct 13-14):

Eighteen participants from five clubs showed up for spaghetti diner and pancake breakfast. On Friday (before other arrivals) we (**Woolseys**) and **Matthews** checked out the magnesite location. Although we found it, steep hills, a rutted road, and severely overgrown brush along the roads convinced us this is may be OK for explorers, but not for collectors. After seeing the scratches on the sides of both vehicles and Sam’s broken ham radio antennas, everyone else agreed, too. Saturday started with a visit to the Aurora Mine for plasma agate. BLM had graded over the main collecting area two years ago, but the rains have already started washing out gulleys in the soft overburden, and a lot of material is still available along the sides of the hills for the taking. Next visit was to the remains of a large chromite boulder and upper Clear Creek for specimen materials – some with a druzey green garnet surface of uvarovite. The remainder of Saturday (and Sunday after breakfast) was in Clear Creek for jade. Saturday night 4 participants hunted along San Benito River with a black light, and think they may have found some benitoite! Sunday morning was a full “Dennys grand slam breakfast” – all-U-can-eat sausage, eggs, and pancakes. No one left hungry, or with empty collecting buckets!

Education Report

By **Dick Pankey**, Education Chair

Adult Education class-Minerals & Gems--Are you interested in jewelry and lapidary arts? An opportunity for a hands-on experience in a variety of basic and introductory craft skills. Co-sponsored by **Contra Costa Mineral**



and Gem Society. Meetings usually 3rd and 4th Wednesday of the month. New students always welcome. Phone **Richard Pankey** (925)439-7509 for information. Course number 083050, Instructor Staff, Wednesday, Ongoing classes, 7-10pm Room 208, PHEC, No Fee.

There will be no classes in November.

In September the Contra Costa M&GS hosted the Petrified Wood Identification Seminar presented by Walt Wright. We had 28 people signed-up for the three-day seminar. Six of our member attended this interesting, informative and intensive class: **Howard Lederer, Mary Hicks, Eva Umboltz, Bob Pevahouse, Walt Carr, and Dick Panky**. This comprehensive seminar began on Friday evening with a 4 hour introduction on the fossil record, what petrified wood is and how it is formed, how to recognize wood structure and what is quality petrified wood. On Saturday and Sunday we learned to recognize and differentiate types of wood, recognize where the wood comes from, it's mineralization, under what conditions it grew, and learn the group characteristics that define what the wood is. The seminar concluded early Sunday afternoon after we had an opportunity to examine and identify the petrified wood specimens brought in by the attendees. This was an extremely interesting and useful seminar. I look forward to taking it again in the future after I have read all the books and materials we were given.

Because of this seminar we have added 4 new references on petrified wood and petrified wood identification to the club's library: the 150+ page course handout, **Hoadley's "Wood Identification"**, **Tidwells "Fossils plants of North America"** and **Dernbach's "Petrified Forests"**.

A special thanks to **Betty Pankey** who helped with preparation, setup and cleanup, to **Hazel Woolsey** who helped with setup and refreshments on Friday evening and to **Mary Hicks** for her help welcoming the attendees and with refreshments during the seminar.

If anyone has a class they would like to teach, please let me know. I will be happy to help you plan and prepare. I am now planning classes for next year. We have lots of talented people in the CCM&GS. Please share some of your time and your talent. We have good participation in our classes and we appreciate the people who have stepped forward to share their time and expertise. Also, please let me know what classes you are interested in and I will try to find teachers.



The Reading Room

By *Marlow Hicks, Librarian*

New Book. Number to be assigned.

Eldorado-Adventures in the Path of Empire. By Bayard Taylor. Bayard Taylor was among the thousands of young men who spilled into California in the tumultuous year 1849. He arrived not with pick and shovel but with pen and paper, dispatched by Horace Greeley of the New York Tribune to report on the madness, exuberance, and upheaval of the California gold rush. Traveling throughout the state, Taylor witnessed the explosive growth of San Francisco and the instantaneous creation of Sierra townships. He traversed the nearly deserted lands of the Spanish missions and attended the constitutional convention that set the boundaries and forged the laws for the new state. With wit, intelligence, curiosity, and engaging humor. Taylor chronicled the birth of modern California. He had found "the richest material in the world to work upon," and his account--

combining the skills of a gifted author with the freshness and immediacy of a reporter in the field--is widely regarded as a classic of western literature.

Gem for November

From various sources, snippets here and there.

The stone for November is Topaz and this stone stands for Fidelity. Topaz is a number 8 in the Moh's Hardness Scale.

On the North American continent, there are several localities where topaz is found. La Paz, Durango and San Luis Potosi in Mexico produce colorless and yellow crystals. Wine yellow, pale blue, colorless, and reddish colored crystals are found in the region of Pikes Peak, Colorado; in Texas good blue and colorless crystals are found either as crystals or water worn pebbles and crystals; in California pale blue and colorless crystals are found in San Deigo County in and bordering the Pala district. Topaz is also found in the Thomas Mountains of Utah.

Heat treating requires a temperature of 450 degrees C (840 degrees F) and must be closely controlled. Considerable experimental work has been completed with X-ray bombardment and an article written by Kurt Nassau, Ph.D., titled "The Effects of Gamma Rays on the Color of Beryl, Smoky Quartz, Amethyst and Topaz," was published by the *Lapidary Journal* in the April 1974 issue.

Stone of the Month

By *Douglas Rue*

Editor misplaced report this report so here is the October report.

Novice-Glen Hubbard

Pro Class-Mary Bufton's Crazy Lace Agate.

Faceted Stone-Barrie Bieler's Rutilated Quartz.



Membership

Jim Bufton Membership Chair

All members-Dues are now Due for 2002. Current dues structure: Couple \$15, Single \$10, Junior \$1. Please make check payable to CCMGS. You can mail you payment to me--

James Bufton, Membership Chair

261 Santa Fe Drive

Walnut Creek, CA 94598-3120

Or give to me at our show or at the regular meeting. Thank you for your prompt cooperation.

This is also a good time to provide me with birthdays and anniversary information. Some members that have seen in the Bulletin incorrect dates or have noticed their information is missing, well that is because the data base needs updating.



Birthdays

Louise Gilley	10/4
Scott Pevahouse	10/12
Betty Jerde	10/13
Sandy Rouze	10/17
Ken Williamson	10/18
Bill Morgan	10/19
Mary Crenshaw	10/22
Richard Dennis	10/26
Gloria Going	10/27

CFMS Shows



NOVEMBER 3-4, CONCORD, CA. Contra Costa Mineral & Gem Society, Centre Concord, 5298 Clayton Road. 10-5 daily, Sam Woolsey (925)837-3287.

NOVEMBER 2-4, EUREKA, CA. Humbolt Gem & Mineral Society, Redwood Acres Fairgrounds, 3750 Harris Street. Fri. (kids only) 9-6, Sat. & Sun 10-6. Mike Martin (707)839-5422.

NOVEMBER 3-4, OXNARD, CA. Oxnard Gem & Mineral Society, 800 Hobson Way, Sat 9-5, Sun 9-4. "Gems for the Holidays" Jingle Bell Rocks. Webmaster@ogms.net

NOVEMBER 3-4, RIDGECREST, CA. Indian Wells Gem & Mineral Society, Desert Empire Fairgrounds, Mesquite Hall, 520 S. Richmond Rd., hours 9-5 both days. John De Rosa (760)375-7905.

NOVEMBER 17-18, LIVERMORE, CA. Livermore Valley Lithophiles, "The Barn", Pacific Ave. at So. Livermore Avenues. Sat. 10-5, sun. 10-4. Bill Beiriger (925)443-5769

NOVEMBER 17-18, VICTORVILLE, CA. Victorville Gem & Mineral Club, 14800 7th Street, Sat. 9-5, Sun. 9-4. Gil Gilbert (760)868-6900

NOVEMBER 24-25, BARSTOW, CA. Mojave Desert Gem & Mineral Society, Barstow Community Center,

841 S. Barstow Road, 10-5 both days. Bob Depue (760)255-1030

DECEMBER 1-2, SAN BERNARDINO, CA. Orange Belt Mineralogical Society, corner of E Street & 31st Street. Sat 10-6, Sun. 10-5. Tony Gilham (909)8202122

AMERICAN FEDERATION/REGIONAL 2001 SHOW SCHEDULE SOUTHWEST FEDERATION November 3-4, Pascagoula, Ms.

To Russia for Jade

By Richard Hughes and Nikolai Kouznetsov from the September & October 2001 SMS Matrix, Sacramento Ca. Continued from the October bulletin.

(This article will be presented in three installments. This is the second installment.)

About the Authors

Richard Hughes is an author, gemologist, and webmaster at Pala International, Fallbrook, California. He also has his own personal web site: www.rubv-sapphire.com Nikolai Kouznetsov is president of Stoneflower, a Moscow-based company specializing in Russian gems, minerals and fossils. Today he resides in Fallbrook CA. This article originally appeared in GemKey Magazine, Vol. 3, No. 1, pp.58-66.

Here comes the Komis

Imagine this. After close to six hours of bouncing across the Polar tundra, we cross a rise and encounter a scene straight out of the old American plains. Teepees dot the landscape, surrounded by sleds, with reindeer grazing peacefully nearby. As we rumble closer, white-skinned people dressed in red tribal outfits emerge from the tents and it hits me--I've just discovered the summer home of Santa Claus.

What we had found was an encampment, of Izhma Komi (yes, pronounced like 'commie'). While there are over 500,000 Komi in Russia, the

Izhma Komi number but a few thousand. These are the tundra Komi and unlike the other groups have reindeer herding as a main source of income.

In addition to the Komi, another tribal group, the Khant, are also found in the Polar Urals. But in contrast to the Komi, who have white skin and blue eyes, the Khant are more Mongolian in appearance.

Timeless

Scenery along the way was just beyond spectacular. Tree line this far north is probably less than 500 meters above sea level, with the highest peaks in the Polar Urals topping just over 1000 meters. But it is hard to be a tourist amidst the roar and bounce of this Russian Taiga tank. Occasionally we would pass a small settlement, but otherwise there was little sign of human activity. Only wave upon endless wave of forest, green hills and tundra. After three hours of bone-jarring action, we crossed a small rise and came to a river. Standing along the bank was a wizened old man with what looked like all his worldly possessions on a small-wheeled luggage cart. Obviously waiting for the next bus to Nowheresibirsk. He flags us over and blurts out something in Russian. Translation: "What day is it?"

Mine at last

Nine hours into our journey and I've made an important decision. Upon my return to Moscow, I will register a complaint with the Russian highway department, and then go right into the pearl business, because I cannot take these jade roads anymore. The KGB had no need for torture. All that was necessary was to bring a prisoner up here. Ten hours of this road and anyone would give up state secrets. How did I come to be here?

Eventually we arrived at the mine site, Pusyerka, also known as Lot 88. A few ramshackle mine buildings showed evidence of past mining activity. How anyone ever discovered a gem up here is beyond belief. The country just oozes emptiness. It would be beautiful, were it not for the thought that, in a day or

two, we will have to make this same journey back down the road.

Exploration for jade in the Polar Urals was begun by a Russian geologist named Yevgeny Kouznetsov (not related to Nickolai). In 1979, geologists mapping the area discovered rocks favorable for the formation of jadeite. Sergei Mikheev joined the yearly expeditions in 1985. Patiently they explored, during the three months per year when the snow and ice yielded to the sun. In the summer of 1989, Sergei reached down and picked up a stone that would change his life. Incredibly enough, after ten years of looking, he had found his first piece of jadeite. And it was no ordinary jadeite, but imperial jade, of a quality that compared favorably with the fine material from Burma.

Sergei took that first piece to Hong Kong, where he showed it to one local jade trader. Only a trace of imperial green was visible at the surface. When Sergei voiced his belief that the green vein would continue throughout, he met only skepticism. So Sergei made the Chinese an offer. The stone would be sawn open. If the green continued throughout, Sergei would receive his asking price. And if the green disappeared, the Chinese would pay his much lower offer. As the saw blade parted the boulder, the tension was palpable. When it reached the end, each half of the boulder tumbled away. Revealing a fine emerald-green color within. Sergei's belief in his stone was vindicated. And the Chinese man became a believer. He later invested heavily in the mining, but alas, could not wring enough profit out of it to continue.

Good Clean Fun

Forty lashes and chest pains? Here's to your health at the banya...According to the Russians, you cannot consider yourself truly clean until you have gone through the ritual purification of the banya. The first step is to obtain bundles of birch branches (the bundle I selected was particularly nice). Then it's off to the banya. These are sex-segregated locker room-cum-bath houses where one strips naked for a

quick shower before moving on to the warm-up room. Finally the main event, a wooden hot box where naked Russian sadists continually splash water onto hot rocks, sending up pillars of scalding steam which increase the temperature to solar levels. Being a novice in the banya scene, my friend Nickolai suggested I go first. He asked me to lay face down upon a wood bench and proceeded to beat me senseless with the birch branches. This lasted about 10 seconds--the time it took for me to arise screaming from the third degree burns on my...hmmm...let's just call him Peter.

After applying the same to Kickolai, we fled the hot room, plunging in to a pool of ice water. This is said to increase blood flow. I suppose it works--at least for those whose heart continues to beat after the shock. According to Nickolai, some Russians actually build their banyas near a lake so in winter they can go directly from Hell to a hole in the ice.

A brief shower and several skin grafts later, Nickolai said it was time to do it again--and so we did, repeating the process again and again. Finally, the banya ritual was finished off with massages by two hefty Russian bears. During the massage, I began to consider making a permanent move to Moscow. My skin literally glowed, and as we glided out of the banya house I felt cleaner than I had ever been in my life. Banya? Yeah, baby, let's do it!

Fortune strikes

Shortly after returning from the Polar Urals, Nickolai and I found ourselves shooting a game of pool in a Moscow taproom when fortune smiled upon us. We were approached by a manic man with a cat-that-ate-the-canary grin named Mikhail "Misha" Khronlenko. An old friend of Nickolai's, Misha also happened to be Russia's biggest jade miner and exporter. After much banter and vodka during dinner the next evening, Misha told us he would be leaving soon for his jade mines in Khakassia and invited us along. As Misha explained it, "every dog gets his day." And if we would come with him to Khakassia, he promised "a fantastic day." Not so fast." With the experience

of the ten-hour Polar trek fresh in my mind, I needed to know more. Just where were these mines? Misha smiled and replied that they were just two hours outside the capital on a good road. Oh, real-lah? How could we refuse? A day later we found ourselves on a plane bound for Abakan, capital of Khakassia.

Let me say this from the outset. Air Abakan is not the Concorde. No sleep at all. I spent most of the flight obsessing that if the seat in front of me moved back even one more centimeter, the air hostess would have to remove me from the seat with a decal scraper. Over six hours after deplaning, the Air Abakan bird logo from the seatback in front of me was still plainly visible on my crushed nose. Which wasn't necessarily a bad thing, considering that my blocked nasal passages hindered the entry of the airline's unique aroma.

The Republic of Khakassia lies in Siberia, just north of Altay and Tuva, near the border with Mongolia. Indeed, a walk through the market in Abakan, shows a strong Mongolian influence, with perhaps 10-20% of the population being of Mongolian origin. But ethnic mixtures abound. I'll never forget seeing one family walking down the street. Both mother and father displayed strong Mongolian features, with round faces, black hair and narrow eyes that would have been entirely in place in Beijing. Their child had identical features, except for one--blond hair--testament to the fact that Khakassia has been a crossroads of conquerors for centuries.

The capital, Abakan, means "bear's blood," a reference to a local legend of its founding. It was founded in 1693. Today the population is 160,000. According to legend, in the early days a large bear took a liking to the local ladies, particularly those who were young and beautiful. This bear ate so many young virgins that the Hun declared that any man who could slay the bear could marry his daughter. In the ensuing fight, one man stabbed the bear over and over. The bear's blood flowed out, clearing the valley and forming the river. Thus the name, Abakan, which means "bear's blood." If

this isn't enough, Ghengis Khan said to have buried his treasure somewhere in Khakassia. It was never found.

The jade mines in Khakassia are situated near the banks of the Yenisey River, near Sayano-Shushenskaya, one of Russia's largest hydroelectric dams. A two-hour drive from Abakan brought us to the lake created by the dam. From here, the mine lay some one-and-a-half hours across the lake by boat. Forest is everywhere. After Moscow, the air up here almost chokes you with its clarity. Thirty-six hours without sleep and I am exhausted. But eventually I move beyond exhaustion, where an epiphany is reached and I realize just why I travel. Here I am, out on a lake in the middle of Siberia, and all is well, all is peace, all is right in the world. Russia is such a land of contrasts--amazing!

Fossil Find Indicates Pleisiosaurs Ate Ammonites

Source: "A Bellyful of Jaws", *Discover*, 11-98, p.36. Via *Quarry Quips*

Plesiosaurs have long been known from the fossil record. The fierce-looking marine reptiles with their long, sharp teeth, were early predators, but until recently scientists could only theorize about what they ate. The discovery of a fossil in northern Hokkaido, Japan, however, appears to have changed that.

Found in a riverside cliff, the 93-million-year-old plesiosaur was missing its skull. But where its stomach would have been were the jaws of about 30 ammonites. Although it is possible the jaws could have accumulated there by chance, geology graduate student Tamaki Sato of the University of Calgary, does not think that was the case because such a high concentration is unusual.

Why are there only tiny jaws? Each jaw is only a fraction of an inch long, and none of the hard outer shells are present. Sato theorizes this is a result of the

action of stomach acid or preferential selection by the plesiosaur. Because the animal's teeth were slender and unsuited for crushing ammonite shells, Sato thinks it gulped its prey whole.

A Fun Local Story

By East Bay Municipal Utility District Customer Service Week Funny Story

Good service is always a pleasure but, as you soon will read, it sometimes can be a bit hazardous! Today's funny story winner is Janine Hampton from Survey Section. Congratulations Janine!

This summer, my survey crew of three and myself were trudging along the side of Crow Canyon Road, toting our survey gear. We were walking west bound, on the shoulder, facing the usual onslaught of eastbound traffic.

Because the road can be dangerous, the gentleman at the front of our single file line was walking holding up the 'stop-slow' sign, with the 'slow' side facing the drivers. Being the smallest and the one with the shortest legs, I am at the end of this line. As we neared a rural driveway I heard a horrible

choking, growling noise...loud and inhuman. The rest of my crew already had passed the driveway when I saw a large animal tearing down the hill, head down, curled horns leading his charge. It was emanating more beastly noises as it headed for our crew. Traffic was whizzing by and I had visions of shattered animal, wrecked cars, and smashed surveyors looming in my brain.

"Stop the goat!" I yelled, as a flash of cloven hooves and black pelt passed first one man, and then another. Both had shied away in horror as it came toward them, but the man with the stop-slow sign bravely held up the 'slow' side of the sign at the animal's face. The goat stopped and curiously, examined the sign, almost as if reading the words. The surveyor was waving it in the face of the goat, on-coming traffic now was coming to a halt as they were now seeing the 'stop' side of the paddle. They were confused enough to sit and

wait. Then the goat literally turned tail and trotted back my way.

I grabbed the stupid animal around the neck and discovered it had, of all things, a dog collar around its neck. Well, you cannot survey and 'goat-sit' at the same time so I hang on to the goat by its blue nylon collar and encourage the goat back up the driveway to find its owner. The driveway is a quarter mile long and studded with "No Trespassing" and "Beware Vicious Dog" and "Trespasses Will Be Shot" signs.

Not a word about goats! I'm shouting "Hello! I have your goat! Hello..." I reach the top of the hill and meet what must be the 'vicious dog' which is actually a nearly blind Dalmatian that whines with pleasure at our approach.

The ill tempered goat ignores the canine, as the dog rolls over onto its back, and heads for what is obviously a favorite spot under the porch, and I continue to holler.

"What do you want?" someone actually answers.

"Do you own a goat?"

"No."



I'm crestfallen.

Do you know which of your neighbors might own a goat?"

The goat cooperatively sticks its head out from under the porch and bleats. A man sticks his head out of a window.

"That's a sheep, not a goat. Don't you know anything about animals? That's no goat. That's my sheep. Where was he?"

I responded that he was running down Crow Canyon Road and wanted to follow my survey crew and that I was afraid he'd get hit by a car."

Again he responds with the statement "He's a sheep not a goat."

Of course he's right, but I feel he is entirely missing my point in this conversation. "I'm closing off this little gate to the compound here. You might want to keep your ggg-sheep, around here for the next couple of days".

He agreed, obviously content that I had finally accepted the species of his pet. Unfortunately, this was not the last time I trudged up that hill with that little ram, but in the future we were prepared when Bah-Bah Black Sheep came charging out at us on that stretch of Crow Canyon Road. He was always considerate enough to bleat loudly before he charged out to welcome his new EBMUD survey buddies.

Stringing Ya Along

By Virginia Enns, *The Conglomerate, Reno Gem & Mineral*

This could be a story about one of Norvie's fishing trips, but no, is a different kind of stringing...

Beading...Hmmm, that must be like Basket Weaving 101, or so I thought many years ago. But how else could one learn to repair a bead necklace? It has been my observation that probably half or more beaders were captured because they needed to "fix" a piece of jewelry.

When beading, there are a few more considerations other than "to knot or not to knot." So let's look at beading as a recreational and creative activity. Believe me, giving the same identical beads and findings to three different people will produce three very different necklaces, bracelets, earrings, etc.

Beads are available in many types such as: glass, ceramic, gemstone, wood, bone, seeds, metal, and polymer clay. So get your supplies together and let's get started on this bead adventure!

Tools needed are wire cutters, round nose pliers, flat nosed pliers, scissors and glue (or clear nail polish). Findings are such things as clasps, clam tips or

cone tips, head pins and metal/bone/glass spacer beads.

Beading string can be silk, nylon, tiger tail or even rod wrap from a sporting goods store. Rod wrap for fishing rods is nylon and comes in many colors. Some silk and nylon comes in two yard lengths with a needle already attached. Using a hand towel or commercial bead board to keep beads from rolling, line up your beads as you want them to be assembled. This gives you a chance to rearrange beads to your liking and to figure the length.

Are we having fun yet? Then place the beads in order on the beading cord. Remember that the first thing on the cord is something to attach to the clasp-like a clam tip or a crimp. You have now started, and you could become an addict.

Consideration of color, texture and movement (to a focal point) will get you to the design you like each time you string beads-whether it's for you or for someone else. It really can become easy and relaxing.

Do you want "warm" (red, orange, yellow) color, or are you thinking "cool" (blue, green, blue violet)? Perhaps you are visualizing black and white. Maybe you are thinking outrageous! Texture refers to shape, size difference, and exterior feeling of the bead surface. Movement refers to the flow your eye will take in looking at your creation.

Now - to knot or not to knot? Pearls and gemstone beads are usually knotted. Not so for glass, crystal, metal or beads less than 4 millimeters (mm). Knotting lengthens a 14 to 16 inch strand of beads about one inch, so factor this into the finished length. Several ways of knotting are available. Ask to be shown different methods and see which is more comfortable for you.

Tools for knotting can include a small nosed tweezers, a corsage pin, a ruler with a large pin perpendicular to the ruler. Also there are commercial knotting tools for about \$35.00.

If this article has generated interest you can sign up for beading classes.

Agates - Rich in Fiber!

By Bill Cordua, University of Wisconsin, River Falls. Via Quarry Quips from the Wiclita Gem & Mineral Society Incorporated

Sometimes chalcedony including agate is described as fine-grained quartz, but the real case isn't quite this simple. There are lots of clues for this. Arrowheads and other stone tools are harder and more durable when made from chalcedony rather than coarse quartz. On the other hand, coarse quartz is better to grind up as a concrete additive than chalcedony. The chalcedony causes various chemical reactions in the concrete, which can fail, while quartz is non-reactive. With the advance of modern analytical tools, the reasons for these differences can finally be investigated.

Chalcedony has a microscopically fibrous structure, made of evenly spaced silica rods. More surprising is the fact that the fibers show a regularly alternating pattern of elongation-some parts being "length fast" and some parts "length slow". This means that in part of a particular fiber, light travels faster parallel to the long axis of the fiber. In other parts of the same fiber, the light travels slower parallel to the fiber length. This further implies that the silicon and oxygen atoms for some reason regularly twist or change in orientation as each fiber grew. Mineralogists are still trying to figure out why the fibers twist and what different forms of silica are intertwined with each other.

It is these inter grown fibers that gives chalcedony its great strength and durability. The peculiar structure also gives chalcedony its unexpected chemical reactivity in concrete.

One theory is for the growth of the fibers is being developed by two researchers (Yifeng Wang and Enrique Merino) at Indiana University. They envision agate as developing as fingers of silica growing progressively outward

into a cavity filled with siliceous "media". They do not specify as to whether this "media" is a solution or a gel. The first step is the formation of a coating of silica around the cavity. The coating (this being the real world) won't be completely smooth. In some places, the coating will bulge out slightly into the "media". It is these bulges which will grow rapidly outward into the solution to form the fibers. Impurities in the solution (such as iron or copper) will slow the growth briefly until these impurities precipitate as their own minerals on top of or between the silica fibers. Once the impurity's concentration is briefly reduced in this manner, silica growth will proceed again. Withdrawal of silica makes the solution richer in impurities, causing them to form another layer. This rhythmic precipitation is repeated many times as the agate grows. These layers of impurities show up as the color banding that characterizes agates.

Reference:
Heaney, Peter J., D. Verlan and J. Post, 1994, "Structural disparities between chalcedony and macrocrystalline quartz", *American Mineralogist*, vol.79, p. 452-460.
Wang, Yifeng and Enrique Merino, 1995, "Origin of Fibrosity and Banding in Agates from Flood Basalts", *American Journal of Science*, vol. 295, p. 49-77.



Paper Coal: Curious Relic of the Coal Age

From Indian Geological Survey, Dept. of Natural Resources via Hy Grader via Pick and Pack via T-Town Rockhound via Quarry Quips.

Paper coal is known from only two areas in the entire world--the Moscow basin of central Russia and Parke County, Indiana. The Hoosier deposit

was discovered by an Indiana Geological Survey geologist in 1958 in the high wall of a strip coal mine near Rockville. Natural outcrops of paper coal later were found along streams in northern Parke County.

Leafy in texture, paper coal resembles a stack of scorched paper and is composed of the waxy coatings of ancient leaves and twigs. Indiana paper coal consists mostly of fragments of seed ferns that bridged the gap between primitive plants and today's seed-bearing plants, and that have been extinct for more than 200 million years.

Preservation of the fragile cuticles indicates that they were deposited in quiet lagoons. In paper coal, the original plant material has been oxidized and the more resistant cuticles have been left behind.



Special Mention

Contra Costa Member **Betty Carpenter's stepson, Michael Carpenter**, deserves a special mention. Mike has organized a Heartwalk Team at his workplace every year since 1998. Mike's efforts have raised \$14,042 to support the American Heart Association. Thanks Mike!

Factoids from Valley Waste Management

Did you know:

Recycling one soda can saves enough energy to run an average TV for 3 hours.

Recycling a stack of newspapers 10 feet tall saves one whole tree.



You're A Rockhound

Submitted by Sky Paxton, author unknown, *The Carmel Valley Prospector, Carmel Valley Gem & Mineral Society*

If you hit the road at ten to four,
And drive a hundred miles or more,
Then look for rocks till your sore,
You're a Rockhound.

If you dig all day in the boiling sun,
And pack a sack full home when day is done,
And still insist you're having fun,
You're a Rockhound.

If you camp at night where the rattlers crawl,
Where coyotes howl and doggies bawl,
And you dreams are not disturbed at all,
You're a Rockhound.

If you head for home with an overload,
Down a rutted, rocky mountain road,
And break a spring and don't explode,
You're a Rockhound.

Board Meeting

By Louise Gilley, Secretary

President **Joe Yarbrough** called meeting to order at 7:30pm at his home. In attendance were: **Jim & Mary Bufton, Sam & Hazel Woolsey, Ann**

& Matt Matthews, Mary Ann King, Glen Hubbard, and Connie Klein.

Dick Pankey reported 28 people attended the Petrified Wood Seminar, 6 from our club. **Hazel Woolsey, Betty Pankey, and Mary Hicks** and others helped set up and assist.

Ann Matthews will have a display in the Main Library for a month.

Hazel Woolsey gave the field trip report.

Glen Hubbard announced October 6th would be a work party for the trailer for the show. (Good turn out for the work party—**Glen Hubbard, Jim High, Joe Yarbrough, Charlie Bon, and Mary Hicks.**)



Mary Bufton, Publicity Chair, has arranged announcements about our show in the Contra Costa Times and on T.V.

Jim Bufton, Membership Chair, presented **Ron and Nancy Morris** for membership, vote to approve.

Bob Pevahouse, Federation Chair, announced the BLM is taking 25,000 acres of land from rockhounding east of the Imperial Valley to save endangered species. There is a Wiley Wells trip January 28, 2002. Federation Director meeting for November 10 in Visalia. July 2002, Placerville will be the annual show "Treasures of the Sierra Nevada."

Connie Klein, Treasurer, gave her report, we are solvent.

Sam Woolsey, Show Chair, reported most of the dealers have paid and we need to give a check to Centre Concord. The committee has been working hard to prepare: Lottery tickets, advance sales, fliers, demonstrators, and lecturers. We owe them a dept of gratitude, thank you!!

Meeting closed at 9:05pm.

General Meeting

By Louise Gilley, Secretary

President **Joe Yarbrough** called the meeting to order at 7:30pm with the pledge of allegiance to the flag.

Betty Pankey, our Social Chair, presented our two guests and gave her hospitality report.

The Board meeting for November will be the Monday after our club show.

Glen Hubbard, Property Chair, asked for a work detail to convene at the trailer on Saturday, October 6th, to get read for the show.

Dick Pankey, Education Chair, said the petrified wood identifying class was wonderful.

Marlow Hicks, Librarian, brought a book and video on soapstone carving (soapstone carving is the October class) in addition to other scintillating gem and mineral books and videos. (**Marlow** look great, he had one of his carotid arteries unclogged on Monday.)

Jim Bufton, Membership Chair, introduced new members: **Ron and Nancy Morris.**

Sam Woolsey, Show Chair, had sign up sheets for our November show. The sign up sheets are for assistance with the various booths, etc.

Everyone was excited for the annual auction to begin. The two masters of auctioneering, **Bob Pevahouse and Al Schlieff**, kept the evening entertaining and moving right along. **The Bob Diedrick Scholarship Fund** was initially begun with \$25,000 donation from his estate. The scholarship fund is used to assist a northern California student. Our annual auction usually raises approximately \$700 for our contribution. They were assisted in presenting the merchandise by **Jim High, Dick Pankey, and Joe Yarbrough.** **Mary Ann King and Betty Pankey** kept track of the purchases. We had a fun evening and raised money for the scholarship besides--A Win-Win!!



EDITOR'S NOTE:
Submit articles and news for the December Diablo Diggins by November 18th.



Board and Committee Members 2001

- President **Joe Yarbrough**, 682-3894
- 1st Vice-President of Programs **Ann Matthews** 229-0836
- 2nd Vice-President of Field Trips **Hazel Woolsey** kr6at@arrl.net or 837-3287
- Secretary **Louise Gilley** 228-5704
- Treasurer **Connie Klein** 689-4051
- Federation Director **Bob Pevahouse** Rockmanrob@aol.com or 689-4676
- Membership Chair **Jim Bufton** 935-2081
- Publicity Chair **Mary Bufton** 935-2081
- Property Chair **Glen Hubbard** GandGHub@aol.com or 228-9131
- Hospitality and Social Chair-Vacant
- Greeter **Betty Pankey** Dickpankey@juno.com
- Display Chair **Bryce Ellsworth** 933-3236
- Display Assistant **Douglas Rue**
- Show Chair **Sam Woolsey** Kr6at@arrl.net or 837-3287
- Librarian **Marlow Hicks** opheliahicks@aol.com or 685-7625
- Historian **Duaine Eggleston** 682-4881
- Past President **Mary Ann King** 947-1550
- Ecology Chair **Glen Mackenzie** 689-4589
- Education Chair **Dick Pankey** Dickpankey@juno.com or 439-7509
- Editor **Mary Hicks** mphicks@pacbell.net 671-9594
- Cover Design **Shirley Schleif** 682-0951

Mary Jernigan
1031 Pierce St
Fairfield, CA 94533



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Diablo Diggin's Editor
Contra Costa Mineral & Gem Soc.
PO Box 4687
Walnut Creek, CA 94596

"DIABLO DIGGINS"

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