

March 2002

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

Diablo Diggins

Monthly Meeting

By Ann Matthews, Vice President-Programs

The March Program will be a slide show program by member Ophelia Hicks titled, "A Rock". Curious? Me too, but those of you who have heard Ophelia's programs before know that they are always interesting. Come and bring a friend.

Educator and Member Barrie Bieler presented the program for the February General Meeting. Barrie always is interesting and he brings us topics from geology to photography.

Next Meeting is March 8th, 2002 in the Presbyterian Church Gymat 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.

Refreshments will be provided by Ron & Leslie Fray, Bettye George, Rosanne Hannan, Mark Herrenkohl, James High, Loren & Lynne Hill.

Spring Social

By Betty Pankey, Hospitality Chair

Spring is almost here, all the plants are coming in bloom and the trees are blooming all over. The Spring Social is coming, one week after the March meeting, which will be on Friday the 15th at the Sweet Tomatoes, 40 Crescent Drive, Pleasant Hill at 6:30 PM, please try to come earlier to beat the crowd. Directions: Southbound on Contra Costa Blvd., turn right onto Crescent Drive. Approximately one long block from Monument Blvd. From Monument Blvd., cross Contra

Costa Blvd., which will be Crescent Way, go one block and turn right onto Crescent Drive.

We will be having a drawing, but you must be there in order to win.

If we don't hear from you, we cannot reserve a spot and you may have to sit somewhere else. Please sign up at the meeting or call me at 925-439-7509.

Field Trips

By Hazel Woolsey, Vice President

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.freeservers.com/ coop-fieldtrips.html.

March 1, 2, & 3: Petrified Wood Identification Seminar at Sierra College, Rocklin, CA. Hosted by Fossils for Fun. Contact Darryl Shelly 209-296-0635, e-mail darylshelly@volcano.net

March 23: 8:30 a.m. 'till 2 p.m. NBFT Field Trip Chairmen's meeting (and lunch) at Community Presbyterian Church, Pittsburg.. Our club (CCM&GS) will host so need helpers to set-up & tear-down tables, serve food (that others will have brought) and clean-up after lunch. Not hard work especially for "many hands"!!! Rock auction at the lunch break - tour of Black Diamond mines after the meeting for those who want.

BLM Trips-All are fee trips and NO collecting.

Geology & Mining History
Field Trips -2002 sponsored by
Bureau of Land Management
and Buena Vista Museum of
Natural History.

This is a program of earth science field trips to points of ecologic, geologic, paleontologic and historic interest throughout central California. These trips are designed for persons of high school age and older. California is ever changing. The Geology Field Trip Program explores the changes that have occurred throughout California's complex and fascinating geologic history and focuses on the human interaction with this geology over the past 150 years. Visit web site at http://www.ca.blm.gov/bakersfi eld/geologytrips.html the Buena Vista Museum of Natural

History web site is at

www.sharktoothhill.com

April 5-7, 2002. Mother Lode The Southern Mines. This 3.5 day field conference centered in Jamestown, California. On Friday we go to Jamestown and have an afternoon visit and lecture at the Sonora Museum. Our base of operations is at the Jumper Mine near Jamestown. On Saturday we have a tour of the Columbia and the Hidden Treasure Mine, Moaning Caverns, Calaveras Limestone Quarries, Amador County Museum and the Kennedy-Argonaught mine in Jackson. We return to Sonora in the evening. On Sunday we see a 10-stamp mill at Groveland, Coulterville Museum and mariposite outcrops, La Grange, Unmittee and the California

Mines and Mineral Museum in Mariposa.

June 1, 2002. Point Sal. This
is a 3-day field conference. A
four-wheel drive vehicle is
required. On Friday we go to
Vandenburg Airforce Base to
view the Point Sal Ophiolite.
Friday night is spent in Lompoc.
On Saturday we go to Point Sal
by way of the Celite
Diatomaceous Shale Quarry in
Lompoc and the Lompoc
Museum. We camp at Point Sal
State Beach on Saturday night.
Sunday is a hike from the beach
to Point Sal.

October 4-6, 2002. Panoche and Tumey Hills. This is a 2day field conference. Leaving early Saturday morning, we set up a base camp at the edge of the Turney-Panoche Hills Wilderness Study Area. Saturday afternoon will be spent in reconnaissance for plesiosaur and mosasaur sites within a radius of 3 miles of base camp. Reconnaissance work will continue on Sunday afternoon. For most programs, the registration fee is \$10/day. Teachers can make arrangement for continuing education credits. If you have any questions about these trips call Dr. Gregg Wilkerson at 661-391-6177 or contact the Buena Vista Museum of Natural History at 661-324-6350 or Hazel Woolsey at 925-837-3287.

Education Report

By Dick Pankey, Education Chair

Six people took **Don Tompkins'**Arrowhead knapping class in January.
Don teaches the pressure flaking
technique. Each person got to try
his/her hand on 2 or 3 arrowheads. It
was great to see all of the arrowheads

on the Show -N-Tell table at the February meeting. A Big Thank You to Don for this fine class.

For our March class Jim High will teach a class on silver jewelry fabrication. The class will be held on Wednesdays, March 20th & 27th at the Diablo Valley Adult Education Center, 3100 Oak Park Blvd. in Pleasant Hill at 7:00 PM. The project is a pendant with a faceted stone. You will learn how to drill, saw, solder, shape, sand, clean, polish and mount a faceted stone. Tools, materials and supplies are provided but bring a jeweler's saw if you have one. Class size limited to 15 people and first timers will be given preference. Sign up at the March meeting or call Jim High or me.

Mark your calendars and make your plans for the 2002 classes:

March 20th & 27th – Jewelry
Fabrication with Jim High
April – Bead Stringing with
Ophelia Hicks
May – Glass class with Connie
Klein
June – To be announced
July – Wire Art Jewelry with
Glen Mackenzie
August – Rock Art and
Critter Nights
September – To be announced
October – To be announced

The Reading Room

By Marlow Hicks, Librarian

The History and Use of Diamond by S. Tolansky. Book #113.

What magic is there in diamond, the hardest and most beautiful of crystals, that is so coveted as a gemstone and yet burns in oxygen to become the gas that makes lemonade sparkle? Professor Tolansky examines its history from Biblical time, when it formed a magic amulet for men, to the present day when used as the crown for oil drills. The strange, sucal and scientific characteristics of diamond are described here in reasonably nontechnical language, balanced with history, folklore and anecdote. The author deals with the art of cutting and polishing diamond, and traces the growth of the fashion for wearing diamonds among women. Throughout the book there is a contrast between the romance of the famous historical stones and their legends, and the real business of mining ands using diamond with its problems and techniques. The final chapters covers its vital importance in modern industry, produced synthetically and in large quantities.

Stone of the Month

By Douglas Rue

January Report

No Novice Award

Pro Award - Joe Yarbrough

Facet - Barrie Bieler

February Report

Novice Award - Dick Dennis

Pro Award - Lee King

Membership

By Jim Bufton, Membership Chair

Birthdays

Sharon Neuhauser	3/2
Bob Duncan	3/5
Kim Dana	3/8
George Matthews	3/14
Betty Mackenzie	3/14
Kai-Shen Liu	3/18
Ron Morris	3/19
Lou Hamilton	3/25
Susan Dennis	3/25
Dai We Kim	3/25
Barbel Schnoor	3/25
Harold Schnoor	3/28
Eric Jordan	3/29

Anniversary

Fred Fog 3/18

(If the date is incorrect or you have a birthday or anniversary this month and you are not included, please send a written correction to Mary Hicks to help her update records.)

CFMS Shows

March 1-3, Hayward, CA. Castro Valley M&G Society, Centennial Hall, 22292 Foothill Blvd., Hayward. 9-6 Friday & Saturday, 9-5 Sunday.

March 1-10, 2002, El Centro, CA

Imperial Valley G&MS, Expo & Fair. Monday through Thursday 4-10 and Friday through Sunday 10-10.

March 2-3 2002, Arcadia,

Monrovia Rockhounds, The Arboretum LA City, Ayres Hall, 301 N. Baldwin Ave., Arcadia, CA 91007. 9-4:30 both days. Jo Anna Ritchey (636)359-1624 or j.ritchey@verizon.net

March 2-3 2002, Ventura, CA

Ventura G&MS, Seaside Park (Ventura County Fairgrounds), 10 West Harbor Blvd. Sat 9-5 & Sun 9-4. Jim Brace-Thompson (805)659-3577. <u>Jbraceth@juno.com</u> or www.vgms.org

March 9-10 2002, Turlock, CA. Mother Lode Mineral Society, Stanislaus County Fairgrounds; 10-5 both days. Ted Magee and Bud McMillin 209-522-8231 or 209-527-8000.

Arch 9-10 2002, Vallego, CA. allejo Gem and Mineral Society, Solano County Bldg, Solano County Fairgrounds. 10-5 both days. Ed Hoffmark 707-642-8754.

March 16-17 2002, San Jose, CA
Santa Clara Valley G&MS, Santa
Clara County Fairgrounds, 344
Tully Road, San Jose, CA. Sat 10-6
& Sun 10-5. Ruth Bailey (408)2486195 or sevgsm@aol.com
http://chriscox.org./sevgms

March 16-17 2002, Hawthrone, CA

Northrop Grumman G&MS. 12329 Crenshaw Blvd., (Gate 16). Sat 10-6 & Sun 10-5. Jimmy Lapham at Lapham @earthlink.net

March 23-24, 2002, La Habra, CA

North Orange County G&MS La Habra Clubhouse, 200 W. Greenwood. Sat 10-5 & Sun 10-4. Don & Jane Livezey (909)524-6280 or jdlive27@aol.com

March 23-24, 2002. Boron, CA. Mojave Gem and Mineral Society, Boron High School Multi-purpose Room. Prospect Street. Sat 9-5 and Sunday 9-4. David Eyre 760-762-6575.

April 6-7 2002, Hacienda Heights, CA

Puente Hills G&MC, Magic in Rocks, Steinmetz Park, 1545 Stimson Avenue. 10-5 both days. Bob Hess (562)696-2270

April 20-21, 2002, Mariposa
Mineral & Gem Show, CA. Second
Annual Show, Exhibit Buildings A
& B at the Mariposa Fairgrounds.
Free admission. E-mail
mineralmuseum@sierratel.com,
Mova Verde, State Park Interpreter.

July 12, 13 & 14, California Federation of Mineralogical Societies 63rd Annual Show & Convention.

Treasures of the Sierra Nevada. El Dorado County Fairgrounds, 100 Placerville : Drive. 10-5 Friday & Saturday, 10-4 Sunday.

AFMS Regional Shows 2002

Rocky Mountain Federation, April 19-21 2002, Enid, Oklahoma.

California Federation, July 12-14, 2002, Placerville, CA. Treasures of the Sierra Nevada, El Dorado County M&GS, El Dorado County Fairgrounds, 100 Placerville Drive, Placerville, CA (530)622-3030

Northwest Federation, July 16-21, 2002, Port Townsend, WA

CFMS Earth Science Studiesat Zzyzx, March 24-31, 2002

What is Zzyzx?

If you have never heard of the Earth Science Studies, it is a weeklong seminar sponsored by CFMS where rockhounds can make new friends, study lapidary arts, exchange ideas, go on field trips, socialize and have fun.

Workshops include bead stringing, silversmithing, sculpturing (carving), wire wrap, cabochons, and perhaps others. Attendance at this seminar is limited to sixty people. Register early.

See Bob Pevahouse if you are interested or for reservation forms, information, or questions, call: Ruth Bailey (408)248-6195 or Frank Monez (408)578-7067

Hubbard Glacier

From Earth Science 1987 by Patricia Barnes-Swarney.

In the last 20 thousand years, glaciers have covered up to 30% of Earth. Today they cover more than 10% of the world. Although scientists believe they understand much about how glaciers move, we are still awed and baffled by glacial activity.

In 1986, the Hubbard Glacier advanced up to 47 feet a day. The advance changed the geography of the area. In May 1986, the glacier moved slowly toward Disenchantment Bay and formed a natural ice dam at the mouth of Russell Fiord, creating Russell Lake. The dam was 100 to 820 feet high and 2500 feet wide. The dam broke up on October 8, sending water into the bay.

What makes glaciers move? The process of calving helps keep the glacier in about the same position. But the east side of Hubbard Glacier entered an area of shallow water and bulldozed sediment in front of it. The sediment prevented calving. The advance of the glacier was quickened by glacial surge. A tributary of the Hubbard Glacier, the Valerie, surged about 112 feet in 1 day, adding to ice problems in the area.

When outflow channels under a glacier are blocked, trapped water acts like a lubricant. When the weight of more ice and snowfall are added, the glacier slides downslope rapidly, creating a surge. Surge speeds can be 10 to 100 times faster than normal.

The Bruarjokull Glacier in Iceland is a dramatic example. In 1 year it advanced 5 miles at speeds up to 16 feet an hour. Predicting when a glacial surge will happen is difficult. A glacier may surge once every 15 years or once every 100 years. Some seem to be surging permanently; parts of the Jakobshavn Isbrae in Greenland advance 4 to 6 miles a year.

California's Non-fuel Mineral Production 2000

From the Breccia from California Geology September/October 2001.

Based on US Geological Survey (USGS) preliminary data, California ranked first among the states in non-fuel mineral production, accounting for 8.4% of the country's total. Production of at least 25 types of industrial minerals accounted for about 95% of the total value, with metals accounting for 5%.

California was the only producer of boron, rare earth concentrates, and asbestos.

California continued to lead thenation in production of sand and gravel, portland cement, diatomite, and natural sodium sulfate.

California ranked third for gold production behind Nevada (1) and Utah (2).

There are about 1000 active mines producing non-fuel minerals in the state, and employing approximately 11,090 people.

Here is the breadkown fo these minerals with a total value of \$3.38 million:

- Construction sand and gravel \$1000
- Portland cement \$865
- Boron minerals \$498.4
- Crushed stone \$403
- Other \$331.7
- Gold \$154.8
- Industrial sand and gravel \$43.9

- Masonry cement \$40.4
- Gypsum \$20.8
- 3. Clays \$15.4
- 4. Dimension stone \$5.4
- Silver \$1.5
- 6. Gemstones \$1.3

(Number 5 Other includes asbestos, diatomite, feldspar, fire clay, fuller's earth, iron ore, kaolin, lime, magnesium compounds, perlite, pumice and pumicite, pyrophyllite, rare earths, salt, soda ash, tale, sodium sulfate and zeolite.

Prospecting With Plants

Information summarized from Earth Science 1987 by Frederic R. Siegel, Department of Geology, George Washington University.

Other living organisms that can be used for prospecting are plants, bacteria, insects, and mammals.

Traditional sampling for minerals by geologist is limited to outcroppings. Trees on the other hand absorb minerals through the extensive root system. Vegetation such as grass, shrubs or trees provides the geochemist with a sample as large as the plant's root system. Leaves from a shrub with a root system of a cubic yard (47,000 cubic inches) contain chemicals from 200 times the volume of a typical soil sample.

For instance, dogs can be trained to sniff out vapors coming from rocks with sulfide minerals in them. Base-metal deposits in Finland were discovered that way.

Termites transport sand to the surface

from as far as 700 feet deep when building tunnels. Analyzing the sand from termite mounds can pay off. The Termite Gold Mine in Zimbabwe was discovered this way.

Island Discovered

From Breccia from San Jose Mercury News 1/21/02

A new island off the coast of Santa Barbara was recently discovered using sonar technology. The island, submerged about 400 feet beneath the water surface, is a little more than a mile in length and about a dozen miles from shore.

Ed Keller, US Santa Barbara professor of geology and environmental studies, discovered the island while studying sonar maps of the Santa Barbara Channel. He noticed the protrusion was marked by features that suggested it had been eroded by the pounding of waves, rain, and wind-which could only happen if the area had protruded above sea level.

He dubbed the underwater island "Calafia", after a mythical queen who ruled over the race of Amazons who inhabited the island of California in a popular 16th century Spanish romance novel.

A Field Geologist's camp in the 1830s

From Earth Science 1986 by Donald M. Hoskins, Pennsylvania State Geological Survey.

One of the first geological field camps in Penn's Woods, or Pennsylvania, was in 1834. It was lead by Richard C. Taylor, a founder of the Geological Society of Pennsylvania, a scientific and lobbying group that helped set up the First Geological Survey of Pennsylvania. Taylor's 'field season' began in April and lasted until the snows of winter, when -13 degrees F weather forced its closing. Taylor and his party of camp assistants and

naturalists collected and described the geology and living fauna of the Allegheny Plateau, in an area that is now part of Lycoming and Tioga counties.

"Explorations of this kind are not performed without many privations, much fatigue, exposure and the customary inconveniences attending our peregrinations amongst woods and rocks, far from human dwellings, where our bed is the hemlock boughs, our awning the greenwood tree. Yet have this rude forest life, these wild scenes, and even these temporary privations, their share of interest, and of not unpleasing novelty. After the heat of and burden of the day have been borne and its toils ceased--after all hands have been busy about the camp each to his individual task, some in erecting the temporary sleeping place...bringing in a substantial stock of fuel for the night, another barking trees for our roof; one making up a fire large enough to roast an ox, and preparing the evening meal, while another catches trout, which abound in all these mountain streams--after all these preliminary duties have been despatched, as well as the meal, the refreshed geologist, or naturalist, as he reclines on his fragrant couch of hemlock, and basks before a cheerful fire some 10 feet long in his front, and has, like myself, the good taste to luxuriate in a cigar, and the good fortune to possess one, feels well inclined to thank his stars for the comparative comforts and enjoyments of the evening....I do not exactly say that we fared so sumptuously every day, as I am unwilling to spoil the romance of the thing. In truth, I must admit that, in the spring and fall, we were something like frostbitten, and an extra blanket would have been agreeable now and then; and that at times provisions were rather scarce, compelling the

observance of a general fast for some 24 hours. A bitter infusion of hemlock is an indifferent, but sometimes necessary substitute for tea in the woods, and one must learn to bear with philosophy an occasional inundation of a few inches of water over our lowly bed.

Our first camping ground was, for 23 nights...a few miles from the sources of (the Tioga) river At this position we found ourselves in the midst of a scene which was new to us, and in fact, of rare occurrence. It was the nesting place, a season of 2 previously, of the passenger pigeon...and here the gathering together of these birds, for the purpose of incubation, was exhibited on a scale perfectly astonishing. For the length of 9 miles they had occupied every tree and sapling in the whole breadth of the valley, which is from a quarter to a third of a mile wide. Thousands and millions of nests were seen on the beech, birch, and maple trees, every tree of which contained several nests; and I counted on some of them from 20 to 50 nests...This year the pigeons established themselves in a new spot, in the beech woods 10 miles to the west. By daybreak in the morning, they would fly past us, almost with the rapidity of lightning, in flocks of hundreds, in constant succession, in search of food, and would be seen returning during the day."

CCM&GS Board Meeting -no meeting held in March. Next BOD meeting is April 4th.

Respectfully submitted by Sharon Neuhauser, Secretary

CCG&MS General Meeting, 2/8/02

Respectfully submitted by Sharon Neuhauser, Secretary

Meeting opened with Pledge of Allegiance by President Joe Yarbrough. Joe said there was a good turnout considering the opening night of the Olympics, or the fact that some of our club were still wandering on the desert after Quartzsite.

There were two guests, Jannette Trevers and Steve Pitman. Jannette won the rock prize. Naomi Morgan won the geode for membership prize.

Betty Pankey announced birthdays and anniversaries. Betty suggested we save Friday, March 15th, 6:30 pm, to join together at Sweet Tomatoes for a buffet dinner for a fun evening.

Dick Pankey thanked Don Tomkin for teaching and showing the napping arrow head process. February 20th and 27th are Project nights. Railroad spikes and wire jewelry fabrication. People to teach new classes are always welcome!

Hazel Woolsey Field Trip chair said February 23rd will be a Co-op meeting in Modesto, lunch is \$15. All welcome. March 1, 2, 3, Walt is presenting his petrified wood class, it is also the Castro Valley Show weekend.

March 23rd, help is needed in our club, as we are sponsoring a field trip meeting in Pittsburg, CA. Need set up and take down of tables, chairs, and help in serving food would be appreciated. There will be a field trip to Black Diamond Mine also.

May 1, 2, 3 is Snyder's Pow Wow in Valley Springs, usually a sunny warm miniature Quartszite with rock outings, but gee, it is a muddy slushy fun filled 3 day weekend. Be prepared!

Our President presented Louise Gilley her pin for a great job as secretary in 2001. Joe also gave a needed book to Doug Rue and returned a large spoon to Hazel Woolsey.

Dwayne Eggleston and wife have both been sick and hope someone will take over the job of Historian of our club. Hope your both feeling better real soon.

The Audit Committee will meet Sunday, February 17th at 1:00 PM at Connie Klien's house.

President Joe will not be at the next general meeting as he's going on a Caribbean Cruise.

There was a short hunt for the light switches, then Berrie Bieler presented his program on Glaciers, which was a fascinating explanation of ice fields. The pictures of the Rockies, Iceland, Mt. Everest, Yosemite rock formations, Sawtooth peak, and many other ice areas was most interesting. The glacier polish was explained and a graph showing how the temperature in the last 150,000 years was determined.

Thanks Berrie, you always present such interesting information and your experiences and adventurous wondering spirit makes for some very nice programs. Also, your photography talent shines through.

President Yarbrough suggested all members vote for cabs, if you haven't paid dues it is now time.

Meeting adjourned and refreshments were served.

EDITOR'S NOTE:

Submit articles and news for the April Diablo Diggins by March 18th. Inlinihilinilinilinilinilinil Mary Jemigan 1031 Pierce St Fairfield , CA 94533

Time Value

Save Stamp

FIRST CLASS

"Diablo Diggin's" Editor Contra Costa Mineral & Gem Soc. PO Box 4667 Walnut Creek, CA 94596

"DIABLO DIGGINS"

Official Bulletin & Meeting Notice

Contra Costa

Mineral & Gem Society

A non-profit organization who's members enjoy rockhounding and lapidary arts



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Contra Costa Mineral & Gem Society

PO Box 4667, Walnut Creek, CA 94596

General Meeting: 2nd Friday of the month at 7:30 PM

First Presbyterian Church, 1965 Colfax Street, Downtown Concord (Corner of Salvio & Colfax)

Free parking at the City of Concord garage located across Salvio

Visitors are Welcome! Bring a Friend.

Membership fees: Initiation \$5; Regular member \$10; Associate \$5; Junior \$1.

Mary Jemigan 1031 Pierce St Fairfield , CA 94533

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