



Monthly Bulletin of the Mineral & Gem Society of Castro Valley

January 2009

**General Meeting:**

January 14th, 7:30 P.M. at Mt. Eden Presbyterian Church, 26236 Adrian Ave, Hayward (Next to Chabot College, behind Burger King). See map on back cover.

**Program:**

To be announced

**January Refreshments: A - F**

**New Members:** Unless otherwise stated, *General Meetings* are on the second Wednesday of the month at the church at 7:30pm. You are invited and encouraged to attend! There is a silent action and door prizes at every meeting.

**Next Board Meeting:**

January 12th, 7:00 p.m. at the shop.

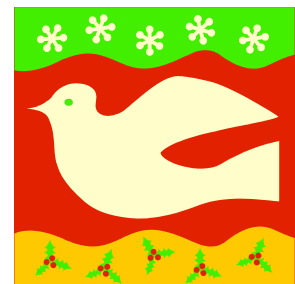
**Show Meeting:**

January 15<sup>th</sup>

Show meetings are the third Thursday of the month at the shop at 7:00 p.m. Open positions include Vice-Chairman, Publicity Chairman and Auction Chairman (not Auctioneer). These are rewarding positions and we are looking for some of our new members to step up and learn the ropes! (Even old members will be considered.)

In This Issue:

- ❖ Rock Rumbles
- ❖ Honor System
- ❖ Gem of the Month
- ❖ Book Notes
- ❖ Color in Stone
- ❖ Black Diamond Mines
- ❖ New Challenges for the Gem Trade
- ❖ A Warning About Artifacts
- ❖ Upcoming Events/Shows



## MINERAL AND GEM SOCIETY OF CASTRO VALLEY, INC. PETROGRAPH

This is the bulletin of the Mineral and Gem Society of Castro Valley, Inc., a member of the California Federation of Mineralogical Societies, Inc., the American Federation of Mineralogical Societies and the North Bay Field Trip Association.

### Bulletin Policy

Submission deadline is the second Friday following the *General Meeting* (normally the second Wednesday of the month.) Anonymous contributions will not be considered for publication in the *Petrograph*; however, if requested, the contributor's name will be withheld from the published material. Members are encouraged to submit articles of various types that may be of interest to the general membership. The editor reserves the right to omit submissions from publication. Proper credit must be cited for material from any other source. Permission to reprint *Petrograph* articles is hereby granted provided all credit is given.

### Publication Staff

*Typists:* Mike Tice, Shirley Buschke, ✧ *Rock Rumbles:* Shirley Buschke ✧ *Labels, Assembly and Mailing:*  
Eloise Murata-Rudiger & Candy Jones

## November Board Meeting

May appear next month.

## November General Membership Meeting

May appear next month.

## December Board Meeting

There was no quorum

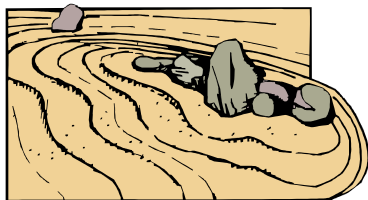
## December General Membership Meeting

The annual Christmas Dinner was held at the Moose Lodge in Castro Valley on December 10. Almost 80 members enjoyed good food, good friends and a good time. Thanks to the Turkey cooks Arland Stokes, Dick Milam and Dan Gilson. A special thanks to Doc Buschke, who donated a Turquoise Tree to the raffle, which raised over 240.00.

## Rock

### Rumbles

—Shirley Buschke  
January 2008



What a wonderful Christmas dinner at the Moose Lodge. It was great to see so many old friends that haven't been to recent meetings or the shop and to meet the spouses of many of our members. Judy and Bill Wong said their daughter enjoyed last year so much she wanted to come again this year. Diana Adams brought her husband Ronnie and he made delicious beans as their contribution. Bill Jeans and Arland Stokes had been hunting but left their fish and ducks in the freezer so they could attend. Arland was one of the turkey cooks. Phil Holme's wife was happy to find out what her beads were. Larry Ham obliged in the ID department. Mark Montgomery contributed some of his blue ribbon giant cabs for the silent auction. These were winners in his case at the Alameda County Fair a year ago.

Beth Farmer directed the party ably assisted by Wilbur Mayo. And the Moose hostess was most helpful. Jewel Hague made arrangements for the party site. We haven't seen her for awhile. She said she is cleaning about a century of family heirlooms and not-so-heirlooms. Too many sentimental memories but the house won't hold any more. I think many of us should be following her practice and start cleaning out and giving away stuff. Our heirs don't really want to clean up after us. We missed hearing Christmas music by Dolores Barnes and Frank Slaughter.

Victor and Darlene Pasquini and Lenore Brest also ventured out to join us. I think a great time was enjoyed by all. And I almost forgot, the other turkey cooks were Bill Milam and Dan Gilson

I guess Snooky Flowers is going to have an excuse not to work at the March show on Sunday March 8. He will be performing at the Saddle Back Ranch in Fremont. He'd better work Friday or Saturday.

Oh, the winner of Doc's turquoise tree was Mike Tice. He was one happy lapidarist, and the club made \$243 dollars. The tree and proceeds are Doc Buschke's contribution. Mike says he wants to build a forest and keep up with Arland Stokes's collection.

Ask Larry Ham to show you his latest sphere. It is rutulated quartz and anyone who has worked on this stone knows it can be extremely difficult. Some even use swear words when they describe the difficulty. Those beautiful rutiles keep popping out and they can scratch the work, too. Larry said he used gallons of crazy glue to keep the rutiles in place while working on the sphere.

## HONOR SYSTEM by Shirley Buschke

Our shop pretty much operates on the honor system. Our philosophy has been that members pay for materials they use. The shop takes care of purchasing major equipment, so if you use the saw, you should pay for your share, which goes to buy replacement saw blades. We do not charge for the use of the trim saw, but it should only be used to trim, not to saw slabs. As far as paying for slabbing, there is a grid to help you figure out what you owe.

The cost for Casting is based on the investment used. Have someone witness your payment. When you buy molding material from the shop, you pay your share. If you make waxes, kick in your share to pay for more wax.

We also have books and magazines contributed by members. Paperbacks and magazines are 50 cents. Others are marked. There is a box by the books for your cash.

Coffee cost 25 cents per cup and water bottles are 60 cents. And while we are discussing these two, at our regular meeting, why not feed the kitty if you did not bring refreshments. Yes, there is a wooden kitty on the refreshment table. If you stopped at a restaurant, that coffee and treat would cost money.

A deposit is required in the faceting room. Classes charge for materials used. Newcomers need to know we need everyone to pay his/her share so we can continue to operate. Consumables cost money and it seems fair to charge those who consume.

## Gem of the Month –*Shirley Buschke*

This month we have another newcomer. He was born in Wurburg, Germany, Yes he is an army baby. He returned to the states with his family and went to school at Wayne University, the Academy of Arts and later Western Sierra Law School in San Diego. When he finished school he went into real estate, became a broker and then decided that law might be interesting. So today he is a lawyer with a small law practice in Fremont .

He is married and has a 10 month old daughter named Michelle. He met his wife in Oakland at the County Court House. She was working in a coffee shop. Today she works as a financial counselor at Wells Fargo.

Our gem has been interested in rocks since childhood. His fraternal grandfather was a geo-chemist and he had help in identification. When asked how he got interested in our club he said he decided he needed a creative outlet. The law can be pretty confining and exacting, so what better way than to bang on rocks and maybe see what is inside. He took to the internet and found our club and decided to explore membership. He says he is too new to the game to have favorites. He thinks maybe emeralds are his favorite stone but realizes one doesn't do much with them because of the cost. He has some beautiful turquoise from his family and might work on that. Right now he is working on some jade which he hopes will develop into earrings for is wife. He says at the rate he is progressing they might end up being for his daughter. He has discovered sometimes jade develops orange skin and won't polish the way one wants. Welcome to the puzzle of stones. Jade, like other rocks and minerals, seems to have a mind of its own. As time goes by, one really appreciates what the ancients did to jade with primitive tools. Who is our gem? Answer -- James Kennedy. He is usually at the shop on Saturday morning. Come and meet him along with several other newish members. Make them feel welcome.



## BOOK NOTES by *Shirley Buschke*

A great new book is on the market for those interested in Trilobites. As with all books of this type, it is slightly pricey--\$60.59 and is printed in both German and English.

## Book Notes (Continued)

The book is "Trilobites Worldwide: the World of Trilobites and their Reflection in Philately" by Hans Ulrich Ernst and Frank Rudolph. 118 pgs. Hardcover. This book is not a catalog but rather discusses trilobite education through stamps. Fossils have been featured on stamps for over 50 years. All Paleozoic systems are included with most of the emphasis on Cambrian. The book is double columned with German and English on the same page.

## COLOR IN STONES by *Shirley Buschke*

When your child asks you "why is that rock that color?", don't you wish you had the answer? Of course there is no simple answer most children can relate to. Maybe chemistry would have been more interesting, particularly to girls, if rocks and gem stones entered the class course.

Light energy is the reason stones are colored. But that answer is too simple. Impurities are the most common reason for color. Sometimes the effect, such as fire agate, mother of pearl, ammonite and hematite, is explained by the unusual physical structure of the stone or gem. Opal color depends on how light hits the numerous bubbles and how they are lined up. Internal defects can also influence color. Or there can be the interaction of electrons from two or more elements making up the mineral or rock.

When light penetrates a mineral and electrons of two different types of atoms absorb some of the energy, the electrons change places. This is called electric charge transfer. Amber, benitoite, heliodor, blue sapphire, violet jadeite and amethyst are affected this way. In the case of benitoite (California's state gem), three atoms' electrons are involved--iron, titanium and oxygen.

Most minerals owe their color to impurities. Some fade or lose their color when exposed to light. Sherry topaz can become colorless, while pink, red and orange topaz are not color centered and maintain their color. In this case, chromium acts as a chromophore. Emeralds get their color from chromium atoms that substitute for beryllium. Vanadium also contributes. The pink in morganite is due to manganese.

Chalcedony, a variety of quartz, comes in many colors. Sugillite's deep purple is due to manganese. Chalcedony is porous so other minerals can slip in and give the color variety we know. Nickel makes it green and we call it chrysoprase, while Copper silicate can make the stone blue. I think the answer to the child's question is "just because that's the way it is", which certainly is no answer at all

### **Black Diamond Mines from the EBRPD Website**

The East Bay Regional Park District began acquiring land for Black Diamond Mines Regional Preserve in the early 1970s. Today, most of the mining district is within the Preserve's nearly 6,286 acres. The area is an ideal location for hiking, picnicking and nature study. Naturalists conduct a variety of programs relating the Preserve's natural and historic resources. For information phone (925) 757-2620

### **Coal Mining**

From the 1860s through the turn of the last century, five coal mining towns thrived in the Black Diamond area: Nortonville, Somersville, Stewartville, West Hartley and Judsonville. As the location of California's largest coal mining operation, nearly four million tons of coal ("black diamonds") were removed from the earth. The residents of the mining towns were from all over the world, and their life was characterized by hard work and long hours. Occasional celebrations and a variety of organizations and social activities served to alleviate the drudgery of daily existence. The coal mines had a significant impact on California's economy. By the time operations ceased due to rising production costs and the exploitation of new energy sources, much of California's economy had been transformed from a rural to an industrial base.

### **Sand Mining**

In the 1920s underground mining for sand began near the deserted Nortonville and Somersville townsites. The Somersville mine supplied sand used in glass making by the Hazel-Atlas Glass Company in Oakland, while the Nortonville mine supplied the Columbia Steel Works with foundry (casting) sand. Competition from Belgian glass and the closing of the steel foundry ended the sand mining by 1949. Altogether, more than 1.8 million tons of sand had been mined

### **Hazel-Atlas Mine Tour**

From the mid-1920s to the mid-1940s, the Hazel-Atlas Mine produced silica sand to make jars, bottles, and other glass items. Today, tour participants can take a 800-foot walk into the mine to see mine workings, ore chutes, the shifter's office (mine boss), and ancient geological features. Because of its size and the need for safety, visitors will be taken in only on guided tours, with a limit of 15 persons per tour (minimum age seven years, parental participation is required). First come/first served tours lasting one and one half hours are offered at noon and 3 p.m. weekends only April to November. Arrive at least an hour early to have time to get to the mine entrance and to ensure a spot on the tour. The tour costs \$3 per person, and tickets can be purchased at the Greathouse Visitor Center. Hour-long, advance-reservation tours are

offered at 11 a.m., 1 p.m., and 2 p.m. on weekends April through November. A 10 a.m. tour is available on weekends (April through November) to groups of 10 or more by advance-reservation only. For advance-reservation tours, call 1-888-EBPARKS (1-888-327-2757, option 2, then 3). School groups (third grade and up) and other organized groups (10 persons minimum) can take a mine tour on weekdays. Advance reservations are required: call (925) 757-2620 for information.

### **New Challenges for the Gem Trade**

By Edward Bristol [wildfishgems.com](http://wildfishgems.com)

Today most gemstones have been ultra-high heated, radiated, diffused, filled, dyed, bleached, oiled, or any possible combination of these. Low-grade sapphire is radiated and burned into blue or diffused into orange, topaz is radiated into London blue, brown zircon is cooked blue, quartz becomes citrine, and so on. New technologies create gems that are essentially man-made but are sold as "natural". Some treatments are known and legal, others are considered cheating, some are permanent, and others fade. Some traders disclose treatments, some don't. What really happens to gemstones is hidden in Asia.

Even the best gemologists can hardly determine every new process that is used to "enhance" a gemstone. New treatments are developed in more and more rapid succession. Every new treatment needs months, or even years, to be identified. Meanwhile the door is wide open for fraud and misuse. Here are the latest treatments and new fakes:

Andesine, sold for years as an expensive natural red gem and adopted as the Olympic gemstone, has turned out to be in fact cheap brown-yellow African labradorite, secretly heated and diffused with copper and iron. Buyers are now suing Jewelry Television (JTV) for fraud.

The GAAJ and GIA have found synthetic rubies in the market which were heated in order to disguise their artificial origin. They are offered as "Natural Heated Ruby". The normal gem testing process in a laboratory will easily fail to identify a heated ruby as synthetic.

GEMLAB from Germany has warned of a new type of synthetic quartz which is heated and then passed off as natural ametrine. Ametrine is always heated. Basically this new trick goes along the lines of heating synthetic ruby to sell it as "heated natural". Cobalt coated tanzanite was found by the GIA. Tanzanite is always heated into permanent color change but this "color" can be scratched off.

## **New Challenges for the Gem Trade (Cont)**

The GAAJ has identified rutilated quartz filled with oil and resin in order to improve clarity.

The process of lead-glass filling for star rubies in Thailand has been described by Vincent Pardieu. Lead glass filled rubies have been around for some years but the low-heat version (800-1200 degree C) for star rubies is new.

A new "center-fusion" to color topaz has been developed by Sithy Gems. So far Topaz was irradiated into blue, vapor-color coated into "Mystic Topaz", and diffused into blue and green. The new center-fusion is basically high-pressure-heat gluing of an artificially colored piece of topaz onto a colorless topaz. From the companies' brochure: *"Top Colors of Expensive Gemstone which will resemble as High-Priced Gemstone once mounted in Jewelry. Only Gemologist could reveal the secret upon testing."* The same company also offers color-coated Tsavorite and moonstones.

Gem Research Swiss (GRS) has found bismuth-based glass filler in pink sapphires and rubies. A new type of blue sapphire is produced by inducing cobalt oxide under high-heat into colorless or brown corundum. The new process is called "Tanusorn" and was developed in Thailand, reports the GAAJ. The resulting sapphires are not very nice but cheap and widely available. The GIA has found lead-glass filled color change sapphires. Lead-glass filling can essentially be applied on any fractured or fissured gemstone but was so far mostly used in ruby. This year lead-glass filling has started to show up in other varieties, too.

## **A Warning about Artifacts** from the CFMS Bulletin

Just a note to remind any rockhounds with an interest in arrowheads, scrapers and the like: these can get you into a lot of trouble if they are collected on Public Lands. That's BLM and USFS managed land and maybe others. Did you know that old rusty cans, rusty barbed wire, pieces of purple glass and even nails, especially the square ones, are also considered archeological artifacts? Collect them, and you can be arrested, your vehicle impounded, and you may face fines and jail time. So when you are out collecting rocks, just remember that even junk is now considered archeological artifacts, and be careful about what you pick up, as illustrated by the case below.

*"Folsom pair pleads not guilty in artifact-theft case"* (Sacramento Bee, 11/13/08) "A Folsom father and son pleaded not guilty Thursday to allegedly removing archeological artifacts from public lands."

## **A Warning About Artifacts** (Continued)

The pair "allegedly unlawfully collected archaeological items that were at least 100 years old and had archaeological interest including Native American projectile points, stone tools, bifaces and flaked or ground stone from Nevada ... The two men face a potential prison sentence of 10 years and a fine of up to \$850,000..." Above reprinted from News.bytes, issue 358 - BLM California

## **UPCOMING EVENTS - SHOWS**

### **March 6, 7 & 8 2009, Hayward, CA** **Mineral and Gem Society of Castro Valley**

Centennial Hall 22292 Foothill Blvd.  
Hours: Fri. & Sat. 10 - 6, Sun. 10-5  
Larry Ham (510) 887-9007  
E-mail: [showchair@mgscv.org](mailto:showchair@mgscv.org)  
Website: <http://www.mgscv.org>

### **March 14-15 2009, Turlock, CA**

Mother Lode Mineral Society  
Stanislaus County Fairgrounds  
900 N. Broadway, Turlock  
Hours: Sat. 10 -6 , Sun 10-5  
Bud & Terry McMillin (209) 524-3494  
Email: [terry.mcmillin@yahoo.com](mailto:terry.mcmillin@yahoo.com)  
Website: [www.motherlodemineralsociety.com](http://www.motherlodemineralsociety.com)

### **March 14-15 2008, Spreckels, CA**

Salinas Valley Rock & Gem Club  
Veteran's Memorial Hall  
5th & Liano Streets  
Hours: 10-5 daily  
Teri Beck (831) 679-2896  
Email: [taitani@cencentric.net](mailto:taitani@cencentric.net)  
Website: [salinasrockandgem.com](http://salinasrockandgem.com)

### **March 28-29: Angels Camp, CA**

Calaveras Gem & Mineral Society  
Calaveras *Frog Town USA* Fairgrounds  
Highway 49 in Angels Camp  
Hours: Sat. 10-5; Sun. 10-4  
Tak Iwata (209) 928-5579  
Website: [Calaverasgemandmineral.org](http://Calaverasgemandmineral.org)

### **March 28-29: Roseville, CA**

Roseville Rock Rollers  
Placer County Fairgrounds  
800 All America City Blvd., Roseville  
Hours: Sat. 10-5; Sun. 10-4  
Gloria Marie (530) 367-2262  
Email: [Gloria.Marie@Conservation.ca.gov](mailto:Gloria.Marie@Conservation.ca.gov)  
Website: [www.rockrollers.com](http://www.rockrollers.com)

MGSCV Petrograph - January 2009

Dues are payable by mail. Please fill out the membership form below, include a check for the proper amount (**make payable to MGSCV**), enclose a self-addressed, stamped envelope and mail to the club at the following address:

Mineral & Gem Society of Castro Valley, Attn:Membership Chair, P.O. Box 2145, Castro Valley, CA 94546

Upon receipt of your check and application, your membership is immediately active. Your application will be processed and membership cards will be mailed to you within 4 weeks of receipt. Upon processing, your name will be entered into our membership database, added to the roster and emailing list for the Petrograph (our newsletter) and entered into the drawing for cash prizes for attendance at general meetings. Please submit an email address so you can receive the Petrograph via email. Please note that this membership is good through December 31st.

Please email [WorkShopManager@mgscv.org](mailto:WorkShopManager@mgscv.org) including your name, a contact phone number and a good time to call you so an orientation can be scheduled. At the time of orientation you will learn about the club and will start cutting your first cabochon which is one of the requirements for using the workshop.

Working at our annual show is also a requirement of membership. All members are expected to keep the 1st full weekend of March available and to work a minimum of 4 hours. The show is fun to work and is the reason we have the best workshop/club that we have. Membership dues cover less than 10% of our annual operating costs. It is our show that funds the club, shop and any activities. Shop services such as rock sawing, casting, special classes including faceting (etc.) will not be available to members who do not work at the show.

We are a non-profit club whose sole purpose is education. We exist to further the lapidary arts and geological sciences for all who are interested. All members should own and be familiar with the MGSCV Handbook. A stationary copy is available for review in the club's lobby and one can be emailed to you. If you wish to have a copy emailed: Please contact [info@mgscv.org](mailto:info@mgscv.org). Products produced in the shop can not be sold for profit.

Bonnie Andrade, Membership Chairperson

**Membership Application**

**Type of Membership: (choose one)**

- Single, January 1 to December 31st (\$35)       Couple, January 1 to December 31st (\$60)
- Juniors with parents as members (\$1)       Junior with out an adult (\$5)
- Associate - (Former member living more than 100 miles away) (\$17.50)
- Life Members (Voted in by the Board)

Name(s) (Please print all names couples/juniors): \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Phone Number: \_( \_\_\_\_\_ ) \_\_\_\_\_

Email Address: \_\_\_\_\_

(Where we will email the monthly Petrograph to members - If you do not have email Check here  )

Occupational Skills: \_\_\_\_\_

(In case we are in dire need of electrical, plumbing, mechanical, clerical or some other skill, we would like to have this on file.)

X Members Signatures: \_\_\_\_\_

I agree with the Bylaws and rules of the MGSCV.

**PLEASE CHECK THE FOLLOWING IF YOU WOULD LIKE CONFIDENTIALITY:**

- I do not want my address printed in the roster
- I do not want my telephone number printed in the roster
- I do not want my e-mail address printed in the roster

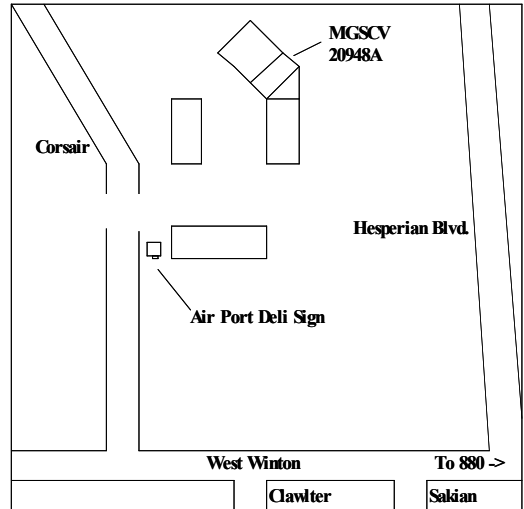
Send to: Mineral & Gem Society of Castro Valley, Attn:Membership Chair, P.O. Box 2145, Castro Valley, CA 94546

**Shop Schedule** (For members only)

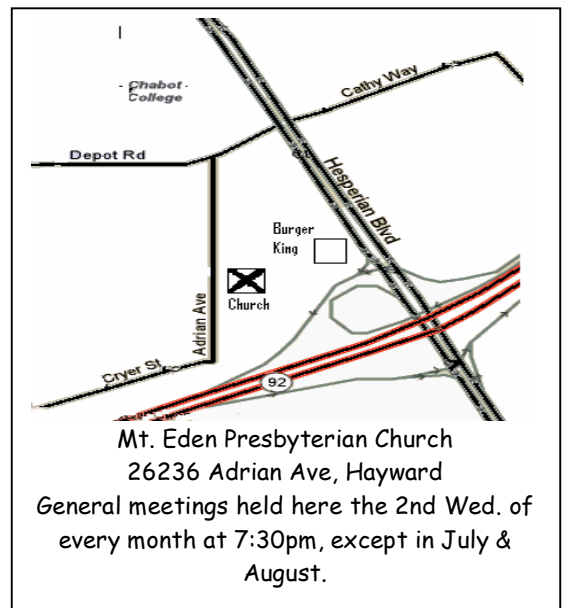
- Monday **10AM to 1PM**, Lapidary  
**7PM to 9PM**, Beginners only  
in lapidary
- Tuesday -Need Daytime Supervisor!  
**7PM to 9PM**, Lapidary,  
lost wax & beading.
- Wednesday -**9AM to 1:30PM**, Lapidary,  
intarsia & beading.  
**Library open 10AM to noon.**  
**6PM to 9PM**, Lapidary
- Thursday Need Daytime Supervisor!  
**4PM to 9PM**, Lapidary
- Friday Need Daytime and Night Supervisors!  
Temporarily closed.
  
- Saturday **9AM to 5PM**, Juniors, adults  
w/supervisor's approval  
**Library open 10AM to noon.**
- Sunday **9AM to 2 PM**, Lapidary

We are in need of Shop Supervisors for Tuesday Day and Friday night and day.  
If interested, please see Beth!

Website: [www.mgscv.org](http://www.mgscv.org)  
Email us at [info@mgscv.org](mailto:info@mgscv.org)



Our shop: 20948 A Corsair Blvd  
Hayward, CA 94545  
(510) 887-9007



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POSTMASTER:  
DATED MATERIAL - TIME VALUE  
Please deliver promptly, thank you.