Bulletin of the Mineralogical Society Of Southern California

Volume 82 Number 10 October 2011



The 181st Meeting of the Mineralogical Society of Southern California

Program: Chasing Volcanoes in Manchuria by Bruce Carter

October 14, 2011 7:30 pm Geology Department, E-Building, Room 220 Pasadena City College 1570 E Colorado Blvd., Pasadena

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Giant gypsum from, Cave of Crystals, Mexico

October Program Chasing Volcanoes in Manchuria by Bruce Carter

Looking for a new part of China to visit prior to a stop in Shanghai, Bruce did a little research that showed that there were actually several young volcanoes in Manchuria, a part of northeastern China that he had not previously visited. With the rationale of visiting these volcanoes, he and Kathy took off to experience some new territory last May. Manchuria is an extremely resource-rich area that has been repeatedly contested by both Russia and Japan over the past few hundred years. The Manchu people founded the Qing dynasty in 1644 that lasted until the early 20th century.

Bruce will talk about the interesting landscapes and peoples of this out of the way part of China, with a particular emphasis on the volcanoes and other geological aspects of the area. Highlights include a climb down into a lava tube ice cave, a visit to a large Siberian tiger reserve and a trip to the top of Changbaishan along the North Korean border.

Bruce Carter taught geology at Pasadena City College from 1971 until his retirement in 2005. Since then he has set up educational exchange programs between Shanghai and California schools. He and his wife Kathy have enjoyed traveling whenever they can get away.

MEANDERINGS FROM THE PRESIDENT by Ann Meister

The recent earthquakes here, in Mineral, VA and around the world bring several thoughts to mind. My first thought is about preparedness. Most of us have water, food, flashlights and batteries, a suitable radio, etc. But have you checked your "mineral collection preparedness"? If you have mineral specimens on display, are they stuck in place with museum wax or tacky wax so they won't tip over or fall off the shelf? Are display shelves anchored to the walls so that they won't come crashing down? If your collection is in drawers, can they slide out and spill their contents or pile up? And I'm not sure what you do about the flats stacked up in the garage. They too can topple and spill off shelving units. The sliding glass doors on my display case rattle during quakes. I hope they never break! There are some horror stories about collections that didn't make it through the Northridge and San Fernando quakes. Information about earthquakes in our area is available on the Southern California Earthquake Data Center website (http://www.data.scec.org/about/index.html).

As a second thought regarding earthquakes: how many of you report the tremors you feel to the USGS? There is a website "Did you feel it?" that is part of the USGS

site. It allows you to record your experience in any particular earthquake. The site is http://earthquake.usgs.gov/earthquakes/dyfi/ and it helps the USGS to plot the extent of the quake and its associated damage. You are asked a series of questions about your situation when the earthquake occurred, what you experienced in terms of strength and duration, the effects on objects around you and the structure, etc. Then there is also and place for "Additional comments" where you can expand on the answers and report about things that were not asked in the questions. I had the most fun with the Chino Hills quake. I was in the Kerkorian Theater in Monrovia watching the X Files movie when it hit. I was in the top row, next to the projection booth. At first I thought, "Is this just a new special effect for a sci-fi movie?" And then I realized it was an earthquake and decided I was safer where I was than trying to leave the theater. I've recently seen the video of the evacuation of the Washington Monument. That was something I wouldn't want to experience.

Minutes of the September 9, 2011 Meeting

The 880th meeting of The Mineralogical Society of Southern California was held on Friday, September 9, 2011, at Pasadena City College, Pasadena, CA. President Ann Meister brought the meeting to order at 7:50 p.m.

The following items were announced:

- (1) A Board meeting needs to be scheduled in October. Members are always invited.
- (2) The MSSC joined with the Fallbrook Gem & Mineral Society for an annual picnic / potluck / mineral swap and sale on August 20, 2011. Several MSSC members attended.
- (3) The Fallbrook Gem & Mineral Society will be hosting their show on October 2, 2011.
- (4) The Searles Lake / Trona show will be held October 8th and 9th.
- (5) We are seeking donations for the silent auction to be held at the annual Banquet in January.

(6) MSSC is considering an increase in dues to cover expenses. The current dues barely cover the cost of CFMS insurance and dues for each member, let alone any other expenses. This will be discussed at the next Board meeting.

The evening's speaker was Dr. Walter Lombardo of Nevada Mineral & Book (342 S. Tustin Street, Orange, CA 92866; http://www.minbooks.net) who gave a fascinating presentation on "Minerals as Glass Constituents, Colorants and Additives." This was the talk you should have attended if you wanted to know how blue and red glass is made, or how Uranium has non-nuclear uses.

Fourteen people attended the meeting.

President Meister brought the meeting to a close at 9:10 p.m.

Respectfully submitted, Robert Griffis, Secretary

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From Archives

DIFFERATION OF GREEN AND BLUE COPPER MINERALS THAT MAY APPEAR SIMILAR

GREEN COPPER MINERALS:

One may not always be sure of his identification of the green copper minerals by appearance alone. Usually crystal habit, especially well terminated crystals, will serve to identify the species. Poorly crystallized or misshapen crystals may appear to be other than what they really are. A few simple chemical tests will usually resolve the identity of the specimen.

The green look-alikes, under certain conditions, are;

Malachite, Cu₂(CO₃)(OH)₂ Brochantite, Cu₄(SO₄)(OH)₆ Atacamite, Cu₂Cl(OH)₃ Conichalcite, CuCa(AsO₄)(OH) Dioptase, CuSiO₂(OH)₂ Libethenite, Cu₂(PO₄)(OH) Rosasite, (Cu,Zn)₂(CO₃)(OH)₂

These tests are meant to be used on clean or reasonably clean crystals or crystal fragments to confirm (or eliminate) a suspected mineral species. Do not use the tests as part of a systematic scheme to identify a complete unknown. Many of these tests will give false results in the presence of other elements or functional groups. The tests have been purposely selected to minimize the number of chemicals used. Most of the chemicals can be easily obtained from the suggested sources in sufficient purity to satisfactorily carry out the tests. In all cases the smallest quantity generally available is sufficient for thousands of tests as described.

Those not familiar with chemical terminology will note that a recurring term is "precipitate" (sometimes abbreviated "ppt."). This is the insoluble reaction product of a test which at first makes the solution hazy or cloudy, but if allowed to stand will settle or precipitate to the bottom of the container. (precipitate = fall down).

In the following tests all apparatus and chemicals must be free of contamination. Glassware after washing must be well rinsed with distilled water. Do not use a towel to dry. Avoid contamination of the solutions by always using the same dropper with its bottle of solution only.

Test for Carbonates:

You will note that there is something different and unique about the composition formulas listed for each species. This gives us the ability to chemically differentiate between them. Malachite and Rosasite are the only one that has the carbonate group (CO₃) in their composition. Rarely will Rosasite be confused with Malachite, so for now this test will be considered specific for Malachite. Remove a <u>clean</u> small crystal or crystal fragment and put it into the bottom of a 3/8" D x 3" long test tube (this size is convenient for observation under a binocular microscope). Add one drop of 1:4 Hydrochloric Acid into the test tube. With care the drop can be made to fall directly into the bottom of the rube. Observe the action of the acid on the crystal. Rapid and vigorous bubbling indicates the presence of a carbonate, in this case Malachite (or Rosasite). Absence of bubbling positively rules our Malachite (or Rosasite) so no further tests will be necessary for these minerals.

If the crystal slowly dissolves in the cold acid without bubbling it can be one of the other minerals in the list, except for Dioptase. If the crystal doesn't dissolve in a reasonable time at room temperature, heat the drop to boiling or near boiling and remove from the heat source. If the crystal now dissolves it is probably Dioptase. Allow the solution to cool down to room temperature and inspect it critically under the microscope. Any trace of haziness indicates silica (SiO₂). If this is the case and further confirmation is needed proceed to the test for silica described later.

Test for Sulfates:

The mineral most often confused with Malachite is Brochantite. This is easily checked for if the preceding solution is perfectly clear. Add one drop of 5% barium chloride solution. A white precipitate or cloudiness of barium sulfate with 4confirm Brochantite since it is the only one with a sulfate group (SO₄). With the small amount of sulfate present in the solution the barium sulfate may be hard to see. If enough material is available, several more crystals of the unknown material may be added to the original drop of acid before adding the barium chloride. The barium sulfate may be slow to form, so don't rule out Brochantite at this time. Set the tube aside for awhile it may take several hours, and carefully examine the bottom of the tube under the microscope. A very thin white layer will be the barium sulfate. If your stereo microscope goes to high enough magnification, and most won't, or if you have access

to a higher magnification regular scope the white precipitate will have a distinctly crystalline appearance.

Test for Chlorides:

If the above tests are not positive or if you definitely know that the unknown mineral is not Malachite or Brochantite a difference approach will be taken for the other minerals. Since any trace of chloride will interfere with the following tests the crystals must be dissolved in nitric instead of hydrochloric acid. Add one drop of 1:4 nitric acid to the fresh crystal. Since Atacamite is the next most likely mineral solution a small drop of 5% silver nitrate solution is added to the nitric acid-mineral solution. A white precipitate of silver chloride confirms Atacamite since it is the only one with chloride (CI) in its composition. Again due to the small amounts involved, time may be required for the precipitate to appear.

Test for Phosphate or Arsenate:

In the strong acid environment of the above test only silver chloride, if present, will precipitate out. Any silver phosphate or arsenate that could be formed is soluble under these conditions. To test for either of these ions the solution must be made neutral or nearly neutral. Ammonium hydroxide will be used to neutralize the excess acid. This is a rather tricky process because if too much hydroxide is added silver oxide will form which is highly soluble in even more ammonium hydroxide to form highly complex ions. The ammonium hydroxide solution to be used will be very dilute so that with care the solution can be made just neutral or left very slightly acid. Carefully add small drops of the ammonium hydroxide to neutralize the acid, if the solution starts to turn straw colored or a brown precipitate forms too much ammonium hydroxide has been added so add just a smidgeon of nitric acid to just get rid of the straw color or brown ppt. This requires some experience so practice on a nitric acid-silver nitrate solution until the technique is perfected. If a reddish precipitate of silver arsenate now forms it will indicate Conichalcite since it is the only arsenate in the group (AsO₄). If a yellow precipitate forms of silver phosphate it will indicate Libethenite since it is the only phosphate (PO₄). The arsenate precipitate may start out yellowish but will turn red after a few minutes. If you have high enough magnification (200X) the crystals of Ag₃PO₄ will appear as 3-pointed "stars" (much like the shape of shark's teeth).

<u>NOTE:</u> All silver solutions containing ammonium hydroxide must be disposed of soon after running the tests. If allowed to stand for any length of time silver fulminate may form which is an extremely sensitive explosive even when wet. Dilution with water and pouring down the drain is OK with the tiny amounts involved

Test for Zinc:

Rosasite is the only mineral in the above list that has a cation (metal) other than copper present, in this case zinc, and a positive test for this metal will indicate Rosasite. The hydrochloric acid solution from the Malachite test can be used. If it wasn't saved make up a new solution of the mineral. Gently boil the solution to concentrate the solution and to remove excess hydrochloric acid. Allow to cool and carefully insert a 1/4" side strip of cobalt nitrate test paper into the solution and allow it to imbibe (soak-up) the solution. The paper is withdrawn and supported by the dry end until the entire strip is dry. The strip is then placed in an open length of pyrex tubing and held over a flame to ash the paper strip. See Illustration. If zinc is present "Rinmann's Green" (cobalt zincate) is formed. This test is much more sensitive if the cobalt nitrate is impregnated on long fibers of asbestos. If asbestos is used it will not be necessary to use the glass tube. See notes under the preparation of reagents. A positive test will differentiate Malachite and Rosasite, almost: Since chemically the only difference between Malachite and Rosasite is the substitution of zinc for some of the copper it is possible to form a continuous series from Malachite to Rosasite to Zinc-Rosasite. So, some "Malachites" will probably show the presence of zinc. If a specimen of a good quality of Rosasite, approximately the same size as the unknown, is treated as above and the green color of "Rinmann's Green" is compared an idea as to the correct identification can be inferred.

Test for Silica:

If the indication of the presence of silica with the hot acid is uncertain then the molybdate blue test can be run. Do not run this test if either phosphate or arsenate has been detected above since almost identical results as for silica will appear. This is a very sensitive test and it is easy to misinterpret the results, so three concurrent tests should be run: one with the unknown mineral, one with a like amount of known Dioptase; and a third with no mineral but with all the reagents. Most reagents contain small amounts of silica as an impurity and could lead to false results if not checked for.

Add two drops of water to the hydrochloric acid solution. To this add three drops of 10% ammonium molybdate solution. After mixing, let stand for about 1 minute, then add one drop of 17% sodium sulfite solution. Let stand for 5 minutes. A blue color should develop if silica is present (observe against a white background). The blue color due to the copper ions present is very faint at this dilution, so any darkening should be taken as a positive test. Compare with the known Dioptase and regent blank. Looking down through the test tubes held side by side should help in showing up any differences.

Some of these tests are quite delicate and subtle when working with the quantities suggested. For that reason experience in knowing what to expect is a great asset. Make as many checks on known material as possible to familiarize yourself with the

procedure and result. All of these procedures have been checked on known material with satisfactory result. The action of other similar minerals has not been fully investigated by me at this time so it is not possible to state with certainly that they would be suitable in all cases. Anomalous result should be interrelated by considering other information available such as morphology and associations.

BLUE COPPER MINERALS THAT MAY APPEAR SIMILAR

This group will be divided into two sub-groups: the azure blue ones and the lighter blue ones. The azure blue minerals are:

Azurite, Cu₃(CO₃)₂(OH)₂ Linarite, PbCu(SO₄)(OH)₂ Stringhamite, CaCuSiO₄ . 2H₂O

Most often Azurite and Linarite are confused since the blue color is almost identical. If Galena is an associated mineral it is a good bet that the mineral is Linarite since oxidation of the galena can provide both the lead and sulfate ions. A carbonate test will serve to differentiate Azurite and Linarite and a sulfate test will confirm Linarite and confirm Linarite. A test for silica will indicate Stringhamite. All of three tests are run the same as those for the green copper mineral. Depending on dilution a slight cloudiness may develop with the solution of Linarite due to the separation of very slightly soluble lead chloride. If the solution is slightly cloudy run the sulfate confirmation test before concluding that the cloudiness is due to silica as with Dioptase.

In lighter blue copper look-alikes are:

Caledonite, $(Pb_5Cu(CO_3)(SO_4)_3(OH)_6$ Connellite, $Cu_{19}Cl_4(SO_4)(OH)_{32}$. $3H_2O$ Cornetite, $Cu_3(PO_4)(OH)_3$ Liroconite, $Cu_2Al(AsO_4)(OH)_4$. $4H_2O$ Zinc-Rosasite, $(Zn,Cu)_2(CO_3)(OH)_2$ Aurichalcite, $(Zn,Cu)_5(CO_3)_2(OH)_6$

These can all be differentiated using the tests already presented except for the last two. Qualitative chemical tests cannot differentiate between species that have the same ionic make up. Morphology will have to be relied on if the chemical tests indicate that either of these minerals is present. Only a summary of possible results will be given since the procedures are the same as for the green minerals.

• Caledonite will be indicated by a positive test for carbonate and sulfate.

- Connellite will be indicated by positive tests for chloride and sulfate.
- Cornetite will give a positive test for phosphate.
- Liroconite may or may not give a positive test for arsenate. The arsenate part of the molecule is only a small part of the total molecule so a much larger sample is usually necessary for a positive reaction. So, if the mineral is suspected of being Liroconite dissolve 5 of 6 times as much as would normally be necessary.
- Aurichalcite and Zinc-Rosasite will both give positive reactions for carbonate and zinc. If the specimen is almost white it is a good chance that it is Zinc=Rosasite. I suspect that much of the very light Aurichalcite is Zinc-Rosasite. Only an X-ray diffraction pattern or a very good quantitative analysis will confirm which is which.

PREPARATION OF REAGENTS

In general it is always best to use the purest grade of a chemical obtainable for analytical procedures. Unfortunately it is difficult for the average individual to obtain the best reagent grade. Alternate sources for most of these chemicals that will provide a satisfactory test is given. The amounts called for produce about 50 ml. of solution which is just a little shy of 2 fluid ounces. If 1 oz. or 1/2 oz. dropper bottles are used cut down the proportions accordingly. A 1/2 oz. bottle of solution will provide about 300 drops, enough for a good number of tests.

- **1:4 Hydrochloric Acid**. Measure out 40 ml. of distilled water into a clean dropper bottle. Add 10 ml. of concentrated reagent grade hydrochloric acid and mix. Often swimming pool hydrochloric acid (muriatic acid) will be good enough grade. It is approximately the same strength as the reagent grade. If it is colorless, with no tinge of yellow, it is probably OK. Label the bottle of diluted acid.
- **1:4 Nitric Acid**. Measure out 40 ml. of distilled water into a clean dropper bottle. Add 10 ml. of concentrated reagent grade hydrochloric acid and mix. The concentrated acid may range from colorless to light brown with brown fumes in the upper part of the bottle. This is normal and OK, it is due to slight decomposition of the acid into nitrogen oxide. As soon as the acid is diluted it will be colorless. CAUTION: Nitric acid in contact with the skin reacts with the protein of the skin to produce a yellow stain. This is called the xanthoproteic reaction (xantho = yellow) and the stain will not wash off. Prolonged contact with the acid will produce several chemical burns. Normal renewal of the epidermis will cause the yellow cells to wear off. Label the bottle.
- **5% Barium Chloride**. Dissolve 2.5 gm of the crystalline barium chloride (BaCl₂.2H₂O) in 47.5 ml of distilled water. This will be called 5% barium chloride solution. Label the bottle CAUTION: Barium chloride is extremely poisonous when ingested causing heavy metal poisoning. To dispose of used barium chloride solutions pour the solution and rinse water into a container containing gypsum and water. Since barium chloride

may not be readily available to everyone and the sulfate test is not bothered by impurities, one can make their own barium chloride from a good piece of Witherite. Weigh out 2 gm. of Witherite and dissolve in the minimum amount of hydrochloric acid possible. Boil the solution formed until it is almost dry and dilute with distilled water to 50 ml.

Cobalt Nitrate Test Paper: Soak a piece of filter paper in a 1% solution of Cobalt nitrate (0.5 gm dissolved in 49.5 ml. of distilled water). Hang it up with a clean clothes pin to dry. When dry, cut into 1/4" wide strips about 2" long and store in a clean vial. Other water soluble cobalt salts may be used but the nitrate seem to work best.

If you elect to use the alternate method using asbestos fibers, it is not necessary to prepare the fibers ahead of time. Instead use a 5% solution of cobalt nitrate, dip in a tuft of asbestos fibers then dip the fibers in the unknown solution and hold in the flame to complete the reaction. The asbestos used is preferably "long-fiber amphibole" sold by laboratory supply houses for the preparation of Gooch filter crucibles. (2011 Note: Obviously this was written a long time ago before the ban on the use of asbestos for almost everything).

10% Ammonium Molybdate Solution: Dissolve 5 gm of ammonium molybdate crystals $(NH_4)_6Mo_7O_{24}$. $4H_2$) in water and dilute to 50 ml. Label the bottle.

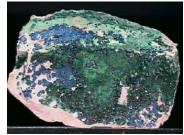
17% Sodium Sulfite Solution: Dissolve 8.5 gm. of sodium sul<u>f</u>ite (not sulf<u>a</u>te) Na₂SO₃ in distilled water and dilute to 50 ml. Anhydrous sodium sulfite is easily obtained in most any photo shop in 1 lb. bottles. A 1 lb. bottle is quite inexpensive.

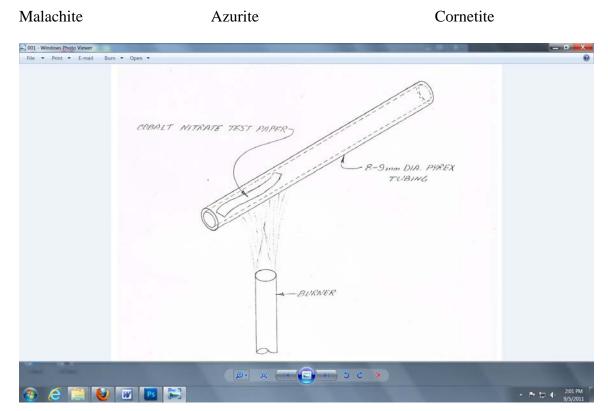
DILUTE Ammonium Hydroxide: Dilute about 1 ml. of concentrated ammonium hydroxide to 50 ml. Ordinary household ammonia may be OK, but be sure that you get the type that doesn't have soap or detergent in it. Read the fine print and use the one that says "pure ammonia". Label the bottle.

From the Mineral Explorer From Papers in the Bill Moeller Collection No date given, probably 1950's or 1960's









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CFMS PRESIDENT'S MESSAGE Jim Brace-Thompson

Setting a Tone for Our Directors Meeting—and Every Day of Our Year

With our Directors Meeting approaching, I devote this month's message to setting a tone. I was inspired by a list of "Club Do's & Don'ts" in the Victor Valley Gem & Mineral Club's September bulletin. Among the do's: "Do form friendships with other club members." "Do volunteer your time and talents when asked. Pass on what you have learned to ensure the continuance of the club." "Do help others. Remember you were new once, too!" Among the don'ts: "Don't sit around and complain. Remember, we're manned by volunteers; they usually get things right—occasionally not—but they do their best." "Don't take the club for granted." "Don't be a habitual complainer.

Other members—especially the new ones—take our lead. Keep the club happy!" Here are my own thoughts on how that article might be applied to our upcoming Directors Meeting and to all of us who volunteer to conduct the business of the Federation all through the year.

Many times I hear complaints about "the CFMS." What is "the CFMS" doing about this issue? Why hasn't "the CFMS" done this or that? As Dick Pankey reminds us, "the CFMS" is not some disassociated entity. To paraphrase, I have met the CFMS, and the CFMS is us. In the end, the CFMS is what we each, as individuals, make of it. If you're not getting what you want out of it, the only way to change that is to get involved. But are we an organization that encourages involvement? Have we created an environment in which all members of all clubs feel they have the opportunity to participate in, contribute to, and benefit from involvement? At worst, an organization becomes unresponsive and archaic to the point of fostering frustration that morphs into apathy among the membership and, eventually, death for the organization. At best, an organization is a vibrant, creative focal point building on past successes, expanding, and responding to diverse member needs. How do we become the best of these two possible worlds? To me, this involves three important factors: focusing on what matters, being respectful to others, and taking action.

Focus on what matters. First, focus on real issues and real problems—and realistic solutions. In the words of Mark Twain, "I have known a great many troubles, but most of them never happened." Rumors abound, and it's easy to get swept up in them. Separate fact from fiction, and keep a focus on real problems—and on ones mind that perfection is an ideal. Know when good is good enough and accept it; don't destroy the good by overreaching for the perfect.

Be respectful to others. When a real problem does arise, present it with a positive and open frame of mind. Contrary to what our U.S. Congress seems to believe, pitched battles don't solve anything. Present issues in thoughtful ways, not slinging from the hip, and focus on issues, not personalities. Address the problem, don't attack the individual, and avoid hurtful statements and snide remarks. If emotions get heated, cool down

and remember that we're all in this together and that we're all volunteers trying our best to accomplish a common good in what limited time we may have to offer. We may become frustrated when others don't share our own point-of-view, but keep in mind: your own agenda isn't necessarily the correct one, and with nearly 7 billion people aboard this little planet of ours as it spins along its infinite cosmic voyage, your own agenda is certainly not the only one! Trust that fellow members are working for a common good as they perceive it, even if that perception doesn't always mesh with your own. Focus on doing what's best for the group rather than being the loudest voice in the room. Herb Cohen, an author on the art of negotiation, has said, "The only way you can expect someone to understand your point of view is to provide them with the substance from which your outlook was developed. Essentially then, the task is education, not argumentation." In other words, work to build bridges—bridges that connect us across any gulf that may separate us—by explaining your perspective and offering good, thoughtful alternatives. And if critiquing someone else's position, be honest but tactful. Speaking down to anyone, especially in front of other people, will reflect worse on you than on the person being critiqued. Also, being the bearer of bad news gets old for both you and others, so also look for the positive. Praise fellow members for the work they do and encourage a climate of mutual respect. Commit to creating an environment where everybody matters because when alone, we are just one voice. But together, we can do great things.

Take action. Finally, if you have spotted a real problem or have a legitimate complaint, accompany it with a suggested remedy—and then stand ready to volunteer to help tackle and resolve the issue. You can sit on the sidelines, snipe, and complain that the Federation isn't what you think it should be, or you can roll up your sleeves, get into the game, and re-shape it into a better image. Volunteer. Jump in. Help to build something in a constructive, positive manner. As they say, you get out of something what you put into it. Everyone wants to be connected, but how many of us truly get involved? It's easy to complain when you're unhappy; it takes thought, time, and real effort to tackle the complaint and successfully resolve it, hand-in-hand with your fellow members. In the words of Gandhi: "Be the change you wish to see in the world."

ROCK SAMPLES FOR US FOREST SERVICE

By Dick Pankey

CFMS members have an opportunity to create a unique collection of rocks and minerals from the National Forests of California. And I am sure that the rocks that we want are already collected. I am working with Mike Hunerlach, a Mining Geologist with the Washington Office of Minerals and Geology, and Regional Liaison for the Pacific Southwest Region of the National Forest Service. In previous issues of the CFMS Newsletter I had articles with the details about what rocks we are looking for. I have heard from several collectors from around California who have told me that they have specimens to donate for this project. So far I have been promised specimens from the Angeles, Los Padres, Mendocino, Modoc, Sequoia, National Forests. And we still need rocks from the Cleveland, Eldorado, Inyo, Klamath, Lassen, Plumas, San Bernardino, Shasta-Trinity, Six Rivers, and Stanislaus National Forests and the Lake Tahoe Basin Management Unit.

Do you live near any of these Forests? Have recently or in the past collected in any of these Forests? If so you probably already have what we need in your rock pile. We want to get specimens that are "typical" and representative of each National Forest. We are not trying to get samples of "every rock" in every Forest. Size should be in the range of miniature to small cabinet specimen (2-4 inches in diameter). And each sample needs to be identified with: name of rock or mineral; location collected including which National Forest; GPS position (very desirable); when collected; name of person and society; and any other specific information you wish to provide.

The purpose of this project is two fold: one is to make a collection for use by the Forest Service and secondly to make a collection for the CFMS. If you would like to help with this project and donate rocks, please send me an email with the name of the rock and the name of the National Forest where it was collected. Please email (dickpankey@juno.com) or contact me before bringing or sending me specimens to avoid duplication. The rest of the information can be supplied when you give me your donation. Go through your rock pile and collecting records to see what you have to donate to this

project. I will accept your donation anytime but need to have all the rocks by early November. Delivering your donations to me at the November Directors' meeting in Visalia should be convenient for all.

This project has many benefits to rockhounds and the CFMS. Working with the managers of our public lands is one way to develop a personal relationship enabling us to get to know one another; it will show what and where we collect so that these areas can be preserved for future collecting; it enhances our position and credibility as a responsible user of public lands; and other benefits. Over the years CCM&GS members have taken field trips and collected rocks and minerals in many of California's National Forests.

A challenge with a request of this nature is to get this information to the collectors who have the rocks and would like to participate. I am asking for help from the people in each society that gets the CFMS Newsletter: "Please pass this request on to your field trip chairman and members." Details were in the May CFMS Newsletter or e-mail me for more information.

Thank you all for your help and participation.

You may give any minerals and rocks to Jo Anna Ritchey, Federation Director, and she will take your donations to Visalia and give them directly to Dick Pankey. We need to remind these people at we collect many minerals in the National Forests as well as rocks. So it would be helpful if I had a lot of various minerals (labeled please) to take to Dick Pankey.

Calendar of Events

October 2, 2011: FALLBROOK, CA

Fallbrook Gem & Mineral Facility 123 W. Alvarado St, Ste. B

Hours: 10 - 4

October 8-9, 2011: TRONA, CALIFORNIA: 70th annual show, "Gem-O-Rama 2011"; Searles Lake Gem & Mineral Society; Lapidary and Show Bldg., 13337 Main St. (at Trona Rd.); Sat. 7:30-5, Sun. 7:30-4;

free admission; field trips Web site: www.iwvisp.com/tronagemclub/

October 8-9, 2011 VISTA, CALIFORNIA: Annual show;

Vista Gem & Mineral Society;

Antique Gas & Steam Engine Museum, 2040 N. Santa Fe Ave.;

Sat. 10-5, Sun. 10-4; free admission

October 14-16, 2011: COSTA MESA, CALIFORNIA: Wholesale and retail show; Gem Faire Inc.

OC Fair & Event Center, 88 Fair Dr.

Fri. 12-6, Sat. 10-6, Sun. 10-5; adults \$7 weekend pass, children 11 and under free

Jewelry, gems, beads, crystals, silver, rocks, minerals

October 15, 2011: WEST HILLS, CALIFORNIA: Annual show; Woodland Hills Rock Chippers

First United Methodist Church, 22700 Sherman Way

Sat. 10-5; free admission

Gems, minerals, rocks, fossils, displays, dealers, silent auctions, demonstrations, hands-on activities;

October 15-16, 2011: CAYUCOS, CALIFORNIA: Annual show; San Luis Obispo Gem & Mineral Club, Cayucos Vets Hall, 10 Cayucos Dr.

Sat. 9-5, Sun. 9-5; free admission

lapidary materials, rocks, rough, jade, slabs, fossils, crystals, gemstones, beads, custom wire wrapping and jewelry, lapidary equipment, jewelry-making items, rock carvings, minerals, free raffle

October 15-16, 2011: LAKESIDE, CALIFORNIA: Annual show, "Rock and Gem Roundup"

El Cajon Valley Gem & Mineral Society

Lakeside Rodeo Grounds, 12584 Mapleview

Sat. 10-5, Sun. 10-5; free admission

rocks, minerals, gemstones, jewelry, fossils, beads, handcrafted items, demonstrators, displays, kids' activity area

October 15-16: WHITTIER, CALIFORNIA: Annual show; Whittier Gem & Mineral Society

Whittier Community Center, 7630 Washington Blvd.

Sat. 10-5, Sun. 10-5; free admission

Dealers, minerals, jewelry, gems, collectibles, lapidary demonstrations

November 11-13, 2011: SANTA ANA, CALIFORNIA: Wholesale/retail show,

"Fall West Coast Gem & Mineral Show"; Martin Zinn Expositions

Holiday Inn-Orange County Airport, 2726 S. Grand Ave.

Fri. 10-6, Sat. 10-6, Sun. 10-5; free admission; open to the public

Society Contacts for 2011

OFFICERS

President Ann Meister president@mineralsocal.org. Vice President: **Bruce Carter** programs@mineralsocal.org Secretary: **Bob Griffis** secretary@mineralsocal.org treasurer@mineralsocal.org Treasurer Jim Kusley **CFMS** Director: bulletin@mineralsocal.org Jo Anna Ritchey

Past President **DIRECTORS**

2010-2011 Leslie Ogg webmaster@mineralsocal.org

> **Geoffrey Caplette** Linda Elsnau (acting)

Geoffrey Caplette

Fred Elsnau:

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> Linda Elsnau publicity@mineralsocal.org

Membership Jim Kusley See Treasurer

Bruce Carter See VP **Program and Education**

Show Vacant

Webmaster Leslie Ogg webmaster@mineralsocal.org bulletin@mineralsocal.org

Jo Anna Ritchey Bulletin Editor







Copper Ore

Chrysacolla

Malachite

About the Mineralogical Society of Southern California

Organized in 1931, the Mineralogical Society of Southern California, Inc. is the oldest mineralogical society in the western United States. The MSSC is a member of the California Federation of Mineralogical Societies, and is dedicated to the dissemination of general knowledge of the mineralogical and related earth sciences through the study and collecting of mineral specimens. The MSSC is a scientific non-profit organization that actively supports the geology department at Pasadena City College, Pasadena, California. Support is also given to the Los Angeles and San Bernardino County Museums of Natural History. The Bulletin of the Mineralogical Society of Southern California is the official publication of the Mineralogical Society of Southern California, Inc.

The MSSC meetings are usually held the second Friday of each month, January, February and August excepted, at 7:30 p.m. in Building E, Room 220, Pasadena City College, 1570 E Colorado Boulevard, Pasadena, California. The annual Installation Banquet is held in January, and the annual Picnic and Swap Meeting is held in August Due to PCC holidays meetings may vary. Check the Society web page for details. The Society also sponsors the annual Pacific Micro mount Symposium held at the San Bernardino County Natural History Museum during the last weekend of January.

Annual Membership dues for the MSSC are \$20.00 for an individual membership, \$30.00 for a family membership.

The Society's contact information:

Mineralogical Society of Southern California 1855 Idlewood Rd., Glendale, CA 91202-1053

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The Mineralogical Society of California, Inc.

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