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Monthly Newsletter of the Contra Costa Mineral & Gem Society

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Editor's Final Note

This is my last edition as your editor. It has been a wild and fun year and I hope I have written something that everyone found a bit interesting. Dan DiCarlo has agreed to take the editor's position His skill set far exceeds my own, and his plans to digitize and excite our little newsletter are very exciting. I will support his efforts by writing articles as necessary. I want to take this opportunity to thank everyone who helped me as your editor and all the feedback I received. I will continue as an officer of the club, and continue to be of service to our club. Our board is making plans for our club's growth and renewal, please contact any board member to learn about those plans and add your input. One final appeal, OUR CLUB NEEDS YOU. We need you to help us out and volunteer for some of our vacant positions like Historian/librarian, hospitality, education, or display. If you can do it, we can use it. So, one last time, thank you.



Can Light Damage My Mineral Collection?

By Diamond Dan Publications



notice that some specimens are different. Some will lose their color. Some will get darker. Others will fall apart. When you know more about light and minerals, you will be able to take better care of your specimens and they

will last for a very long time. Minerals which are affected by light are called photosensitive. The problems that light causes include bleaching, color changes, and decomposition. Let's look at these one at a time.

Bleaching

Bleaching means that color is taken out of something. When sunlight shines on some minerals, the color gets lighter & lighter until the mineral is white. The minerals that can be bleached by the sun include rose quartz, amethyst, celestite, topaz, and anhydrite, to name a few. Once the color is lost in these specimens it will not return. If you have these minerals, do not display them near a window which allows strong, direct sunlight to fall on the specimens. Keep these specimens in a shadowed corner of a room or cabinet and only put light on them when you want to show them off for a short time. Here's a bleaching experiment for you: Take a colorful advertising page from the newspaper and put it on a table where sunlight will shine on the page. Let it sit in the direct sunlight for many days. Each day look at the paper. What do you see? In time, you will see that the colors are changing. Some colors will actually disappear!

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Color Changes

Another problem caused by light is that it can cause some minerals to change color over time. Some minerals that can change color when exposed to sunlight include calcite,



pyrargyrite, porustite, topaz, fluorite, barite and vanadinite. If you ever wonder if light will harm a particular mineral specimen, place a less valuable piece from the same location in light and observe it for a number of days and weeks. Only after doing this experiment should a collector take the chance of displaying better specimens in direct light. Some green fluorites, for example, are known to change to purple. This is true of the specimens from

Weardale, Durham County, England. If you want to be very careful, put specimens that you know will fade or change color in drawers where they will be in the dark most of the time.

Decomposition

There are some mineral species that actually decompose (that is, break down) in the presence of light. The light helps create a chemical situation where certain elements in the minerals combine with oxygen in the air (a process called oxidation). This oxidation can destroy the color and the luster of the minerals. These minerals are said to be photosensitive. The minerals that contain silver, like proustite (above right) and pyrargyrite are photosensitive. They will change



from striking red to dull black as the oxidation takes place. As long as they are kept in complete darkness and looked at only once in a while, and then for a very short time, they will be red. But every time light hits them, oxidation is happening and they are, a little at a time, getting darker and dull!

The mineral realgar (left) is famous for its bright red crystals. However, over time, it changes into the golden-yellow, powdery mineral called orpiment. This change happens faster when a realgar specimen is exposed to light. So, if you ever have a decent realgar crystal, keep it in the dark or, someday, you will notice that it is powdery, yellow and now should be called orpiment!

The mineral vivianite (right), like proustite and pyrargyrite oxidizes in the presence of light. As it oxidizes its color changes from almost colorless when pure to greenish blue and then to blue and then dark purple (which looks almost

black) when the process is done. The specimen will also begin

to fall a part. If you have any of these specimens, be careful to keep

them out of direct light. Keep them safe in boxes or

cabinet drawers and show them off or look at them

once in a while. If you do, you will be able to enjoy

these specimens - in their original conditions – for many years.

The source of this article is...

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Diamond Dan Publications

http://www.diamonddanpublications.net/mini-miners-monthly.html

Holiday Party Time

It is time for our ANNUAL Christmas party, and this year, we are doing things a little differently to make it easier and more fun. The Club is providing a dinner

The party is Dec. 11th 6:30 is the Social hour, & dinner is at 7:00 Endeavor Hall Clayton, 6008 Center St. Clayton.

The menu is ham and turkey, salad, bread, plenty of holiday sides, and drinks, (water, lemonade and coffee). Bring sodas or special menu items if you wish, but only for yourself, and no alcohol. Members bring only their own dinnerware, (plates and utensils), and drinks other then those provided. PLEASE no alcohol.

It is a party so bring a wrapped gift for our gift exchange and if you have wear an ugly sweater for the ugly sweater contest. There is also a holiday hat contest so bring those decked out hats. We will be installing new officers for next year and rewarding all the heros of our club.

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