

# December

DECEMBER PROGRAM - Chairman Lola Pearson says our Christmas meeting will be a traditional Christmas program. There will be a gift exchange. If you wish to take part in this, bring a rock-minded item of at least a dollar value, and label it for a man, a woman, or for either sex. These gifts should be along the line of our hobby-- finished jewelry, slabs, findings, specimens, or anything special for a rockhound. The welcome committee will serve punch and cookies.

## IDENTIFICATION

### Lead and Zinc Ores

Metals are so important to our style of life that it would be impossible to maintain it without them. For the past two months we have written about iron and copper ores. Now we shall consider the sources and uses of lead and zinc.

Lead very rarely occurs as a native metal. Galena, a lead sulfide is its most important source. It is a heavy, silvery-gray mineral which commonly forms in cubic crystals and has perfect cubic cleavage. There are over a dozen other lead minerals, but only two -- cerussite and anglesite -- are used for ores. Cerussite forms in large white or gray needle-like crystals or occurs in massive deposits. It has a silky luster. Anglesite is often found with galena as a white or gray crust. Lead ores often occur with zinc, copper, and silver ores. It is easily smelted and has been known and used since ancient times. Today it is used for making water pipes, lining tanks, and insulating electric cables. It is alloyed with tin to make solder, with antimony to make bullets and printing type, and with zinc for pewter. In the past it was widely used in paints, but is now being replaced by less toxic materials.

Zinc ores usually occur as veins in igneous rocks in association with lead and copper ores. Sphalerite, a zinc sulfide, is the leading zinc ore. It is yellow, brown, or black in color with a resinous luster. Other minerals used as zinc ores are zincite, smithsonite, hemimorphite, and willenite. Zincite is a granular orange-red zinc oxide that is usually found associated with other zinc ores. Smithsonite is a zinc carbonate that forms a crust when other zinc ores weather. Its color varies from white to bright, showy

colors, such as blue, green, or yellow. Hemimorphite, a zinc silicate, forms in groups of tabular crystals or in cockscomb formations. It can be colorless, white, yellow, brown, red, or green. It is found at Franklin, New Jersey, and most of it fluoresces a beautiful bright green. Zinc is widely used for coating or galvanizing iron to prevent rust, in alloys with other metals, in the chemical and paint industries, and in making dry-cell batteries.

Frank and Eleanor Owens

### THE LEGEND OF THE SAND DOLLAR (or Keyhole Urchin)

There's a pretty little legend  
That I would like to tell  
Of the birth and death of Jesus  
Found in this lowly shell.

If you examine closely  
You'll see that you find here  
Four nail holes and a fifth one  
Made by a Roman's spear.

On one side the Easter lily  
Its center is the star  
That appeared unto the shepherds  
And led them from afar.

The Christmas poinsettia  
Etched on the other side  
Reminds us of His birthday,  
Our Happy Christmastide.

Now break the center open  
And here you will release  
The fine white doves awaiting  
To spread Good Will and Peace.

This simple little symbol  
Christ left for you and me  
To help us spread His Gospel  
Through all Eternity.

--From Rock Chips



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