

## Minutes of the 09/21/04 Westside Board Meeting

WSMC Board Meeting - Oct. 20, 2004

This was a very short meeting as only 7 people showed up and Ed's key wouldn't work so we met outside under the lights of the clubhouse.

Stu opened the meeting at 7:30 and gave the Treasurer's report.

### Wagonmaster's:

Ed stated that he will be holding a Wagonmaster's meeting the second Saturday of January to build the 2005 field trips schedule. He also said that the two volumes of "Inventory of Minerals" issued by the state in the 1940s is now on line.

### Old business:

Stu gave us an update on the Walker Valley lease. He had an attorney look at the boiler plate lease the state's attorney had prepared. We are taking some exception, such as accepting responsibility for: leaving equipment parts on the premises, removing hazardous substances, and repairing road damage. Our attorney also questioned the requirement of have excessive personal auto insurance on vehicles that might be on the property. Stu has been talking with the local Department of Natural Resources (DNR) and that don't seem to have a problem with our concerns.

Stu said that some people were going to attend the DNR public hearing on their rulemaking process.

Bob Pattie stated that he heard that there is a possibility that the library at the State Geologists may be closing in the near future

### New business:

Bob Pattie submitted the bill for the copying and stamps for last month's Council Reporter.

It was getting cold and really dark, so we ended the meeting at 8:15.

Bob Pattie

## The Caves of Naica

by Chuck Sonner

This area has been long known for beautiful selenite (gypsum) crystals. In the late 1700's, silver was discovered Naica Hills in the state of Chihuahua. Large scale mining started around 1900. The revolution and the discovery of the first large selenite cave happened in the same year, 1910. The first deposit, the Cave of Swords, was found at a depth of 120m. Mining was spotty at best until 1935. The Penoles Group took over operation of the mine in 1961. Fall of 1999 to early spring of 2000, the latest and largest of the selenite caves was found by Juan and Pedro Sanchez.

The Cave of Swords was the first of many selenite caves. It is 70m in diameter. Contrary to some claims, approximately 70% of the crystals are still present in this cave. The Mexican Federal Government and the mine owners have preserved this site. The Penoles Group opens this cave to visits on a prearranged basis. They have installed a wooden walkway and lights making the selenite crystals visible on all surfaces of this cave.

Another cave has even larger crystals. These specimens have grown to thirteen feet in length. Some will be almost a foot in diameter. Do to this being an operational mine, the crystals in this cave were knocked to the floor. Most caves at this depth, 120-160 meters, have an ambient temperature of 90 degrees.

The Sanchez brothers were following a vein of minerals when they broke open a small cave. They were working at almost 300 meters. At this depth the temperature is almost 150 degrees. The smaller cave opened into a much larger cave. This cave contained selenite crystals that were 40 feet tall and better than 4 feet in diameter. These caves are protected by steel doors.

Since this is a working mine and the largest producer of lead in Mexico, what is there still to be uncovered?

( editors note - This article used several sources from the www. The genesis was from a slide show given by Bob Jones [executive editor of Rock & Gem] at the Boise Federation show . If you want more information, type Cave of Swords into any search engine on the www. )

from Carny Hound, 10/04

## Hoodoos

Shirley Buschke

Mineral & Gem Society of Castro Valley, CA

Somehow the name just fits. So what is a hoodoo? These are hard caprocks, isolated, sitting on a base where most of the rock has eroded away—sort of a mushroom shape. They typically form along sedimentary plateau rims where steep slopes cause rapid run-off of water. Freezing and thawing causes bits of rock to split off and the rapid water run-off sends the soil to the bottom. Softer rock is eroded away and strange columns arise.

Naturally these structures gave rise to many myths among the early people who populated these areas. The Paiutes thought the hoodoos were the petrified remains of animals who had refused to live in the cliff dwelling they had built for them.

Many hoodoos and other geologic formations are found on the Colorado Plateau. This is a wonderful area for rockhounds to visit. Just remember the many restrictions on collecting. The plateau contains about 6 regions—the Uinta basin which contains mostly gentle sloping sedimentary formations that often form cliffs; the Canyon Lands (Southern Utah and parts of Colorado) where canyons dominate and new National Parks have taken root; the Navajo section (Northern New Mexico and Arizona) which includes the Black Mesa and the San Juan Basin; Datil section in mid Arizona; New Mexico which is covered with black lava and has many volcanic features; the Grand Canyon which needs no further explanation; and the High Plateaus (Utah north of the Grand Canyon) where you find many faults and lava capped formations.

The oldest rocks in the plateau are more than 570 million years old. Despite the turbulent separation of North America from Africa about 300-400 million years ago, the plateau moved intact. Gradually, warm shallow seas moved in, alternately receding and inundating, so that large amounts of sediment accumulated. Sandstone, siltstone, shale and limestone formed as the weight pressed down. Then when the Rocky Mountains formed, great amounts of rainfall ended up with the Colorado River. Later tectonic action caused more havoc to the land and the “fancy” formations began to develop. More rivers developed but the substructure remained pretty much intact. Today erosions and uprising continues but at a much slower rate.

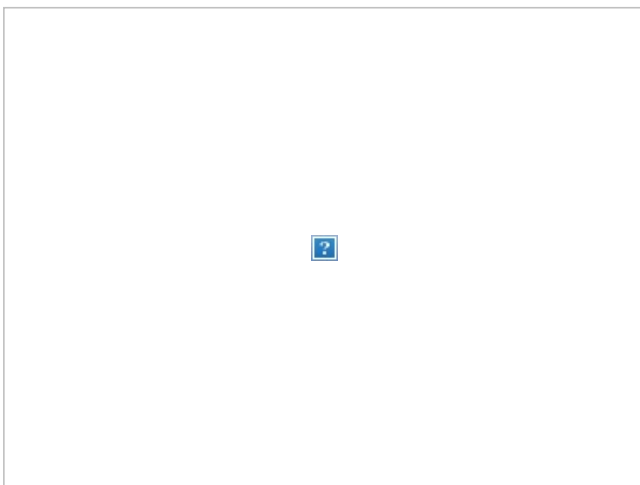
If you visit this area you will be rewarded with sites of hoodoos, arches, bridges, beautifully colored. You will see sand dunes, ripple marks in the rocks, petrified forests. The gorgeous colors include red, purple, yellows, brown, tans, oranges of the minerals found there.

Many kinds of plants and animals survive on this plateau. An interesting site is one of hanging gardens and potholes containing plant life. A pygmy forest also exists. Some of these potholes become temporary aquariums.

This is a fascinating area and sadly tourism is spoiling some of the areas. Much of the land is fragile, water is scarce. Man has also intruded with dam building and other intrusions. Recently water was released into the Colorado River in an attempt to repair some of the damage done. Riparian repair, invasive weed control and tourist impact need to be considered.

So be a good visitor and enjoy one of the most beautiful scenic areas in America.

from eTumbler, 10/04 via Hy Grader, 6/99; from The Petrograph, 5/99



*(editor's note: My boys and I visited Bryce Canyon this summer. This area is well known for its dramatic landscape of colorful hoodoos and natural bridges.)*

## Dinosaurs were struck down in their prime

Dinosaurs were not just killed off when the asteroid hit, they were struck down in their prime, suggests a new analysis of dinosaur fossils

around the world.

"Dinosaurs were just doing incredibly well at the end of the Cretaceous," says David Fastovsky, a paleontologist at the University of Rhode Island at Kingston.

The first dinosaurs evolved about 230 million years ago in the Triassic period. Early dinosaurs were generalists, and had evolved into no more than around 40 genera at any one time up until the late Jurassic, which began about 160 million years ago.

But then diversity soared in the Cretaceous which followed. Fastovsky's team has established that at least 245 dinosaur genera lived during the late Cretaceous period, from 99 to 65 million years ago.

#### **Elaborate jaw**

"The lifestyles of dinosaurs became much more diverse," says Fastovsky's colleague Peter Sheehan of the Milwaukee Public Museum.

"By the late Cretaceous, we have much more specialized animals." The diversity of plant-eating dinosaurs in the period is "absolutely breathtaking", he told New Scientist.

For example, hadrosaurs evolved an elaborate duck-billed jaw filled with teeth to chew vegetation, and the rhinoceros-like ceratopsians evolved elaborate horns.

Earlier studies had suggested dinosaur diversity dropped shortly before the asteroid impact, based on a drop in the number of genera uncovered from the two final stages of the Cretaceous, the Campanian and the Maastrichtian.

The new data also shows a slight decline between those two stages, but statistically this difference is meaningless because very few dinosaurs are known from other stages of the late Cretaceous.

Journal reference: *Geology* (vol 32, p 877)

Jeff Hecht

New Scientist, 10/18/04, online edition