

Rock Hound--New Mexico State Park series

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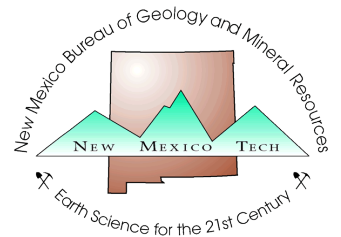
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Rock Hound

Rock Hound State Park was the first (1966) park in the United States established for rock hounds, pebble pups, lapidaries, mineral collectors, and all others who search the hills for rock and mineral specimens. In contrast to the usual admonition to take nothing but pictures, leave nothing but footprints, visitors are encouraged to hunt for rocks and take them home. However, this privilege does not extend to commercial collecting for resale.

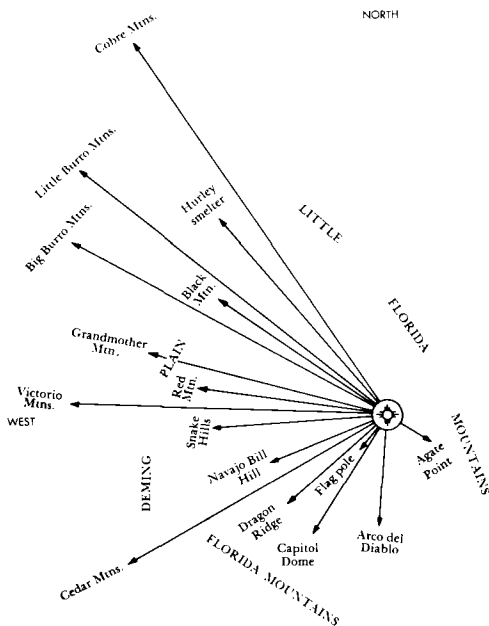
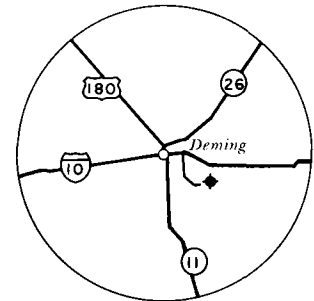
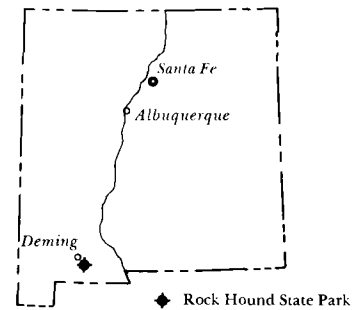
The park is located in the Little Florida Mountains, 12 mi southeast of Deming (Luna County) via highways US-70-US-80 or NM-11. Facilities at the 250-acre park include 30 picnic or camping sites (some with hookups for trailers), restrooms, drinking water, playground, and hiking trails. Visitors may enjoy the breathtaking view of the basin-and-range country that typifies southwest New Mexico and southern Arizona, as well as the diversified semidesert vegetation of the Upper Sonoran life zone in and around the park.

Hurley, the Kennecott Copper Corporation smelter stack rises above extensive tailings dumps, evidence of the large quantity of copper produced there annually. Nearby to the northwest, Black Mountain is a volcanic peak capped with basalt; beyond and left of Black Mountain are the volcanic peaks of Grandmother Mountain. On the skyline the Little Burro and Big Burro Mountains are composed of granite and associated igneous and metamorphic rocks, ancient rocks much older than the volcanic rocks at the park.

Deming, principal trade center of the area, is located on the flat, sandy plain to the west. Clumps of trees dotting the plain mark the sites of farms irrigated by ground water. The two isolated peaks in the middle distance are Red Mountain composed of volcanic rocks and the Snake Hills composed of limestone and dolomite sedimentary rocks. On the western horizon, the group of cone-shaped hills composes the Victorio Mountains and consists of volcanic rocks overlying sandstone, limestone, and dolomite.

In the distance to the southwest, volcanic ridges of the Cedar Mountains extend along the skyline to the Mexican border. Dominating the skyline to the southwest and south, jagged peaks of the Florida Mountains are sculptured from massive volcanic tuffs and breccias in nearby Dragon Ridge and the more distant Capitol Dome. On the left shoulder of the Florida Mountains crest is a natural window called Needle's Eye or Arco del Diablo.

The Mimbres River, which contains water only after heavy rain storms, enters the area from the north along a course at the western foot of Black Mountain. The sandy channel turns eastward and traces a sinuous path through the northern outskirts of Deming, past the northern tip of the Little Florida Mountains, and then south toward Mexico. Only once during the last century have its floodwaters reached the Mexican border near Columbus. Runoff from rains in the mountains to the north seeps into the sands and gravels near Deming and replenishes the extensive ground-water basin that is tapped by wells for irrigation.



PANORAMIC VIEW FROM HIGHEST NORTHEAST PICNIC SHELTER; orient diagram with flagpole.

Panoramic view

The park shelter area (4,600 ft) is on an alluvial gravel fan on the west slope of the Little Florida Mountains. Volcanic rock cliffs rise another 1,000 ft above the park area.

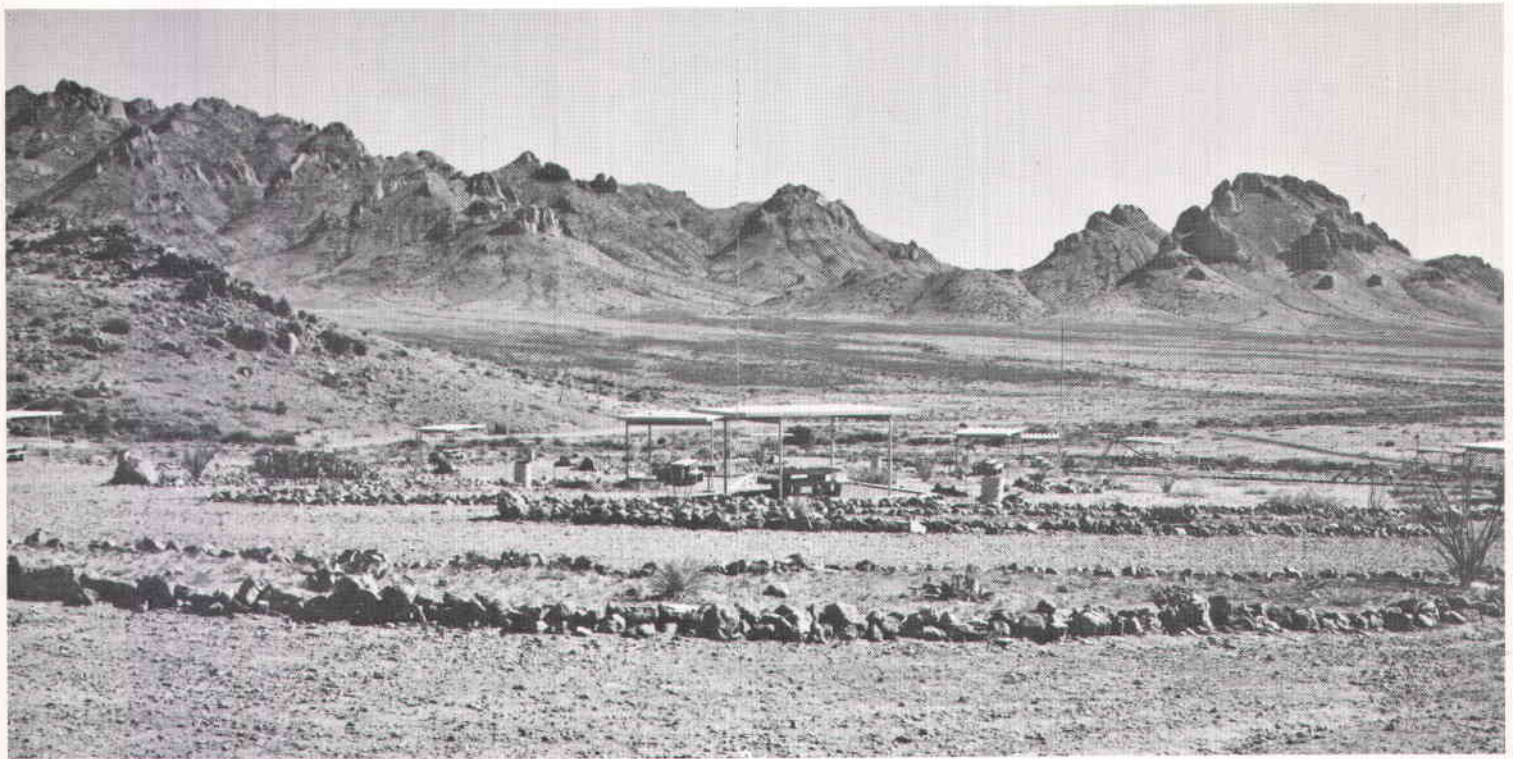
Volcanic hills and mountains rise like islands from a sea of sand, which is speckled with yucca and mesquite. To the northwest are the Cobre Mountains. Behind the northern edge of the Cobres, the huge open-pit copper mine at Santa Rita is hidden from view. At

Plants

Characteristic plants of the semiarid zones of the Southwest flourish on the slopes above the park camping area and are planted adjacent to the shelters. Among well-known varieties are the sotol or desert spoon, yucca, prickly pear cactus, barrel cactus, ocotillo, creosote bush, juniper, mesquite, scrub oak, and hackberry. Though visitors may take rocks home, plants should be left undisturbed for others to enjoy.

Rocks and minerals

Scattered on the slopes of the Little Florida Mountains are rocks and semiprecious gem stones. Rocks exposed here are all of volcanic origin. The lowest exposed rocks are greenish-gray latites and trachytes, overlain by soft, yellowish tuffs. The tuffs are surmounted by broken cliffs of knobby, flow-banded rhyolite containing irregular seams and clots of chalcedony and jasper. The rock sequence of the middle and upper slopes is dominated by two units; each unit has a basal zone of gray-to-black, flow-banded perlite and perlitic pitchstone (volcanic glass) overlain by massive, cliff-forming, flow-banded rhyolite. Columnar jointing causes the glassy rocks in some areas to separate into polygonal blocks; elsewhere, bands of spherulites produce nodular weathered surfaces. Locally, the flow-banding in the rhyolite is intricately contorted, reflecting its origin in a viscous lava flow. Fractures in the rhyolite contain irregular veinlets of quartz, vugs lined with drusy quartz crystals, and local seams of chalcedony. A coating of black manganese oxides appears on some of the larger fracture surfaces. Weathering characteristics of the two cliff-forming rhyolites differ: the lower flow yields talus composed of relatively small, angular blocks and fragments caused by the close spacing of fractures and separation along flow bands; the upper unit separates into massive talus blocks bounded by wider spaced joint surfaces. The upper unit is also noted for abundant patches of bright-yellowish-green lichens on shaded surfaces and for a matrix thoroughly impregnated with silica.



NORTH END OF FLORIDA MOUNTAINS VIEWED FROM ROCK HOUND STATE PARK (H. L. James photo).

Mineral and rock specimens within the park area are of several varieties: silica minerals including quartz crystals, translucent chalcedony of white, bluish-gray, pink, orange, and red (carnelian) hues, grading into opaque tan to red jasper; manganese oxide minerals; gray-to-black perlite and pitchstone, some with contrasting seams of red and brown; spherulites or spheroidal nodules formed in glassy volcanic rocks by local crystallization of minute particles of feldspar and silica, usually cristobalite; and flow-banded rhyolite with intricately contorted bands that form decorative patterns on sawed and polished slabs. Under the microscope, this rock displays a multitude of minute spherulites. Large, well-formed spherulites may be examined (without hammers!) in the boulder placed in the front of the park entrance sign. Thunder eggs, agate-cored nodules familiar to many collectors and lapidaries, are a particular variety of spherulite.

The region surrounding the park offers additional opportunities for the rock hound. Thunder eggs may be the reward of the diligent prospector. Manganese minerals (manganite, psilomelane, pyrolusite, wad, and manganiferous calcite) are prevalent in mine dumps on the northeast slopes of the Little Florida Mountains. Visitors are strongly cautioned not to enter the mine workings, which are unsafe because of unsupported loose rock and inconspicuous drop-offs. The many isolated hills and mountains seen in the panoramic view offer greater opportunity for the more adventurous to collect a wider variety of minerals and rocks.

History

Traces of man in this region reach back more than 10,000 years to the time when Fol-

som hunters pursued now-extinct Pleistocene bison from camps along the Mimbres River. The varied resources of plants, small and large game, and minerals and rocks were more intensively exploited during the succeeding thousands of years when Desert Archaic bands lived here.

Introduction of corn and other agricultural crops to the Southwest eventually led to the establishment of small farming villages along some principal watercourses; here plants could be nurtured through the warm, dry summers. Arts and crafts flourished in these communities, culminating between 1000 and 1150 A.D. in the beautiful pottery for which the Mimbres Culture is famous. The pottery is decorated with geometric, animal, and human figures of innovative style and outstanding artistic merit.

Early Spaniards traversed the area on treks into Mexico and embellished maps with names such as Las Floridas (the flowers) for the Florida Mountains, so named for the local profusion of plants in this desert landscape. In 1804 following development of the rich copper mine at Santa Rita del Cobre by Don Francisco Manuel Elguea, 100-mule pack trains labored across the sandy plain with burdens of copper for making coins in the mints of Mexico.

The American frontier expanded into the Southwest from the time of the Mexican War in 1846-1847. Military expeditions explored the region and blazed trails linking the Territory of New Mexico with the ports of California. Captain Philip St. George Cooke, leader of the Mormon Battalion, directed one of these expeditions. As evidence of his exploits, a mountain range, a prominent peak, and a spring bear his name.

About 19 mi north near the foot of Cooke's

Peak are the ruins of Fort Cummings (1863-1873, 1880-1886), a lonely outpost on the savage frontier. Here it was worth a man's life to venture alone beyond the range of rifle fire from the fort.

Near the fort was a stop on the Butterfield Overland Mail Route (1858-1861). The route from Tipton, Missouri, to San Francisco came from El Paso, went through Mesilla, and continued westward via Cooke's Canyon into Arizona. It crossed some of the most dangerous terrain in the territories, for this was the land of the Apaches who resented the intrusion and abuses of both Spaniards and Anglos. Apache leaders such as Mangas Colorado, Cochise, and Victorio actively resisted the settlement of this region until the mid-1880's, when the elusive raiders were finally confined on reservations. Thereafter, settlement by cattlemen, homesteaders, and miners was unimpeded. □

—R. H. Weber (revised 1980)

COAL PRODUCTION (IN TONS) IN NEW MEXICO DURING 1979

(Surface mining except for York Canyon mine)

Amcoal mine	92,118
McKinley mine	4,365,916
Navajo mine	6,287,900
San Juan mine	3,998,072
Gamerco mine	625,000
York Canyon mine (underground)	767,585
West York Strip mine	577,517
Total	16,714,108

Of this tonnage, only 15,075,881 tons of coal were sold, as reported from payments of the New Mexico severance tax (Data from Mining and Minerals Division New Mexico Energy and Minerals Department).