

## Los Pilares

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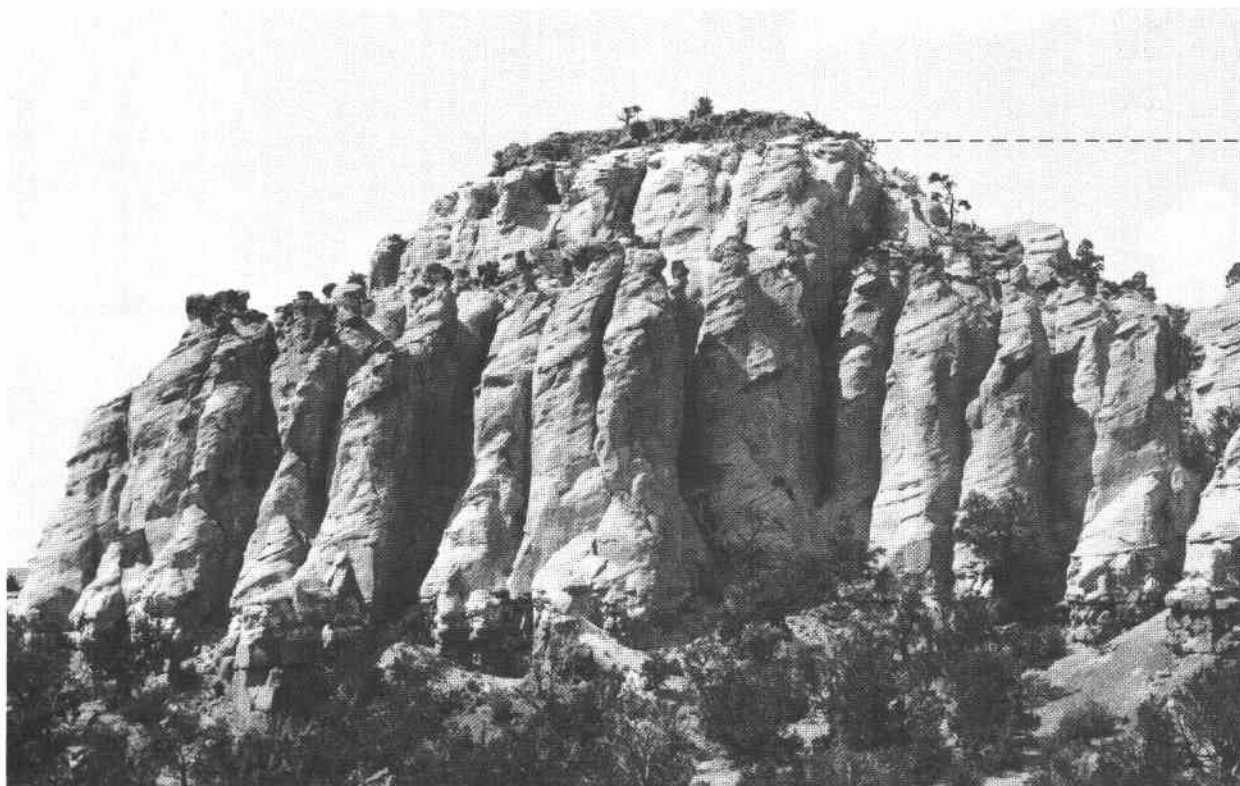
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The high (7,100 ft), relatively flat area surrounding Fence Lake, New Mexico, known as Santa Rita Mesa, is being reduced and dissected by tributaries of the Little Colorado and Zuni Rivers. In the photo shown here Terrero Draw, tributary to the Zuni River, has paralleled the course of a Quaternary basalt flow and carved a scenic niche into Upper Cretaceous and Jurassic rocks at the abandoned village of Atarque, 6 mi north of Fence Lake. The feature, known locally as Los Pilares, is notable for several reasons. The minor faulting in the vicinity seems to have a rectilinear pattern, which has influenced development of the local topography. And at the top of the photo is the Dakota Sandstone (Kd), which forms the base of the Upper Cretaceous section and represents deposition at the time of initial transgression of the Western Interior Seaway.

However, the rocks that lend the scenic qualities to the canyon are those of the Middle Jurassic Zuni Sandstone (Jz) named by Dutton in 1885. The Zuni is of eolian origin and as the crossbed-

ding in the photo illustrates, perhaps just one dune represents the entire thickness of 94 ft of Jurassic rocks. The uniformly southwest-dipping crossbeds indicate southwest transport direction down the lee or avalanche face of the dune under the influence of prevailing northeast winds. The Zuni is the stratigraphic and lithogenetic equivalent of the Entrada Sandstone at this locality.

These outcrops and those near Mesa del Oro to the east represent the southernmost exposures of unequivocally Jurassic rocks in New Mexico. The Zuni pinches out in the subsurface several miles south of Fence Lake. Thus, the Dakota rests on progressively older rocks southward.

Contrasting bedforms below the Zuni are provided by the very fine grained sandstone that makes up the Triassic Rock Point Member of the Chinle Formation (Tcr) (formerly of the Wingate Sandstone). View is to the northwest.

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