

# “Green Zone”



Green rocks and sand at the diggings on Peridot Mesa.

“What did you say you’re here for, again?” The woman at the desk looked up at me over her reading glasses, and added, “Why are you here?”

I was standing in the Headquarters of the San Carlos Apache Reservation. A faded photo of the famed Apache shaman *Geronimo* hung above her on the wall behind. His fierce eyes stared down at me, and it was not a friendly look. I showed her the official-looking letter I carried with me, a letter from the Tribal Chairman. It had given me permission to visit the mines on nearby Peridot Mesa, on Apache land.

Her look conveyed “we’ve never heard of you”, but that didn’t stop me from explaining that I had driven all the way there, for hours, to be there at a pre-appointed time, secured by a recent phone call to the same headquarters, just to visit the diggings. Nobody else in the room seemed too accommodating, either. I thought I was going to be abruptly shown the door. But I was wrong.

“OK,” she smiled and said. “Wait right here.” Shortly, I was introduced to another quiet, but friendly Apache woman, who had seemingly on-the-spot volunteered to drive me to the mining area on the mesa. I was reminded of actor-director Woody Allen’s (no relation to me) comment: “Eighty percent of success is showing up.” In this case, the percentage was even higher. I was “in the zone”, so to speak.

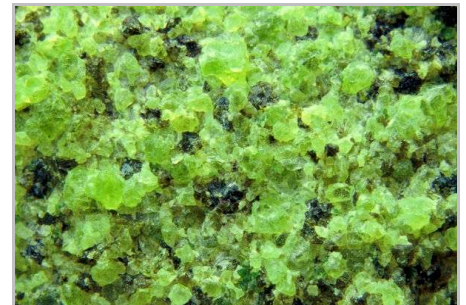
She had one of those big, old cars from the 60’s, but skillfully maneuvered it up the dusty, dirt road winding out of town. On the way, she told me all about her claims, and a few miles later, there we were, looking at a series of cliff-faces, excavations, and piles of stone. The ground all around us looked green and sparkly, like green sand. And it was, too, for it was all mounds of small crystals of Peridot, for which the mesa is named. The bigger crystals, the objects of the quest, were the ones still lodged in the rock, soon to be dug out by her nephews.

Many Arizonans are surprised to learn that their state hosts one of the largest jewel treasures in the world. More surprisingly, these gems are not often seen in local jewelry stores. In varied colors of green, not prohibitively expensive, and possessing a rich history, they are now enjoying greater awareness, and jewelry designers everywhere are realizing that such stones and soothing colors add extra appeal to their work.

*Peridot, chrysolite, olivine* -- these are the names given to our gemstone depending on which part of the world you live in. We call it Peridot. There is even a small town named after it, just off Highway 70, between Globe and Safford. (The gem is pronounced pear'-ih-dough; the town pear'-ih-dawt.)

The Apache Indians now rule the land on which the Peridot lies, and their story is one which rivals any of the other jewelry lore and legends of the world. Geronimo, who was not a Chief, but a medicine man (and therein lay his strength), and his *Chiricahua* band were subdued and moved to what is now the San Carlos Apache Reservation during the turmoil that raged in the Southwest in the late 1800's. His relatives' descendants are among those that mine the Peridot. Only within the past few decades have any serious attempts been made to acquaint the American public with what should be a well-known symbol of our country's riches.

Peridot's use as a gemstone is one of the oldest known. Called the "gem of the sun" (fittingly enough for Arizona) by the ancients, it was originally mined in biblical times on an island in the Red Sea. Burma has also been a major producer of Peridot in historical times. Recent discoveries in China and the Himalaya Mountains of Pakistan have added to the world's inventory, and gem-sized stones are found occasionally in the lava flows of the Hawaiian Islands.



Olivine crystals up close.

Peridot is even found in certain meteorites -- making for truly "heavenly" jewels. When sliced and polished, these meteorites (known as *pallasites*) present an enticing look of shiny, silvery metal inlaid with green, transparent gems.

Gemstones are, by definition, rare, and fine quality Peridot is no exception. But strangely enough, and differently from other gems, the same mineral, in its non-gem mode of formation (always known as *olivine*), is one of the major constituents of our earth. Between the earth's crust and its core lies a zone some 1800 miles thick, known to geologists as the *mantle*, and much of it consists of the mineral olivine.

Arizona's large deposit of Peridot is found where deeply-formed molten rock has blasted its way to the surface, and then cooled in layers. Large "bubbles" within the lava flows now contain the bright green crystals which help make Arizona America's leading gemstone-producing state.

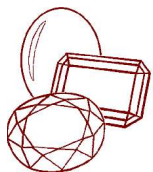
To learn more about central Arizona's exciting geology, visit [www.gemland.com](http://www.gemland.com), go to the map in the "GeoScenery" section, and click on whichever name interests you. That will begin a series of images about the Phoenix area's engaging rock formations. All have geologic explanations available in pop-up windows, and you can send any picture to your friends as an E-postcard for FREE!

----- *Richard Allen*

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*At right: natural Arizona Peridot and 22K Gold  
gent's ring by GemLand © 2004*



*by Richard Allen*

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