



Peridot

Gems formed in the crucible of the earth's mantle

About 17 miles east of Globe, Arizona on the San Carlos Indian Reservation there exists a landscape reminiscent of the moon – craters in a rocky mesa. Only these craters have been created with picks and shovels instead of the impact of meteoroids. This unassuming mesa is credited with producing roughly 80% of the world's supply of peridot. Known as Peridot Mesa, this geological formation occurred when a single volcanic eruption carried material including crystals of peridot from deep in the earth's mantle over an existing conglomerate base.

Since the mining is controlled entirely by the Apache tribe, it has never been commercialized and mining is still done almost entirely by hand. Sometimes material is exposed with a bulldozer, but typically the rock is opened up with hand tools to protect the peridot, then screened for size and picked through to collect the gems. Almost the entire surface of the mesa is composed of basalt with peridot. The deposit is said to be from 3 to 35 feet deep depending on the exact location.

The majority of peridot is small and therefore is usually cut into beads. Faceted peridot from Arizona is typically less than one carat and gems larger than five carats are very unusual. Larger peridot is available from several other locations globally including China, Myanmar and Pakistan. Unfortunately, none of those deposits are as extensive as the one in Arizona so peridot gems over five

carats continue to be rare.

The award for best known deposit of small sized peridot would probably go to Hawaii. A well-known tourist stop on the southern tip of the Big Island is Papakolea or Green Sand Beach. Papakolea gets its name from the fine olivine or peridot crystals that make up a large percentage of the sand there. While none of the crystals are large enough to use for jewelry, they do star in thousands of vacation pics!

Most crystals of the various minerals that make up the gem world form in the earth's crust at relatively cool temperatures. Peridot is unusual in that it forms crystals at the higher temperatures found in the earth's mantle. These crystals are then exposed when that material is forced to the surface. Diamonds are the only other gemstone formed at those depths in the earth.

Peridot or olivine is also the green gem found in pallasites. Pallasites are a rare form of meteorite consisting of peridot nodules embedded in a nickel iron matrix. When sliced thin, these beautiful specimens are reminiscent of stained glass windows! While we only have theories as to how these colorful meteorites were formed, they are another testament to the uniqueness of peridot.

One would assume that a gem found both deep in the earth and in outer space would be incredibly durable! Alas, that is not the case. Peridot has a hardness of 6.5 to 7 which puts it squarely in the middle of the pack. With its beautiful color and affordable pricing, peridot is an excellent choice for earrings, pendants and special occasion rings.



1.46ct peridot and diamonds in rose gold ring \$1290

6 gram Pakistani peridot crystal and diamonds in platinum and gold \$1850

7mm peridot in hammered two tone gold ring \$820

Peridot and 18KT gold on silver filigree earrings \$850

Pallasite meteorite slices from Seymchan and Brenham





Student Showcase



In support of our students, we are planning to offer some of their pieces of jewelry for sale.

The first pieces should start appearing by September so they are in place for the holidays.

Details for applying will be posted to the class email list as they become available.

Summer Bead Sale

August 19-22

All strands of beads and pearls will be

50% OFF

the single strand price regardless of quantity!

Buy 5 strands at once, anytime before the sale and get 40% OFF!



No Reserve Gem Auction

Gems (both parcels and singles) will be available for viewing 9/12

Silent auction begins Saturday, 9/19 and ends Saturday, 9/26