

# Abalone Shell (Paua Shell)



By Georgia Straight Alliance

## History

Abalones are small to very large sized edible sea snails. Their shell is considered an organic gem material, and sometimes is referred to as 'sea opal' due to their iridescent colour play which is naturally occurring. Native New Zealanders refer to them by their Maori name: Paua. Abalone shells have been used for centuries in jewelry and carvings. In the Apache tradition, a disk of abalone shell is worn on the forehead of Apache girls on the morning of their initiation into womanhood.



By Damian White

It lives along the coastal waters of almost every continent, but overfishing have reduced wild populations to such an extent that farmed abalone now supplies most of the abalone meat consumed.

They are mollusks that are closely related to limpets, but larger. It has a single shell that covers its body, and has many holes which helps circulate water over the gills. They are slow movers, like to hide in crevices during the daytime and hunt at night.

Several countries in the world are harvesting abalones, but New Zealand and Australia are responsible for about 25% of the world's produce. Domestic farming and harvesting of abalone began in Japan and China in the late 1950's and by now the practice has grown and spread worldwide.



By Forgotten Realms Wikia

## Geology/Properties

The shells of the abalones have a low and open spiral structure, and are characterized by several open respiratory pours in a row near the shell's outer edge. The shell has a convex rounded to oval shape, and may be highly arched, or much flattened. The color of the shell is very variable from species to species and may reflect the animal's diet. The thick inner layer of the shell is composed of nacre (mother-of-pearl) and varies in colour from silvery-white to pink, red, green-red through to deep blues, greens and purples.

Abalones reach maturity at a relatively small size, their flesh is widely considered to be a desirable food, and is consumed raw or cooked in a wide variety of dishes.



By Sea Shell Int. Company

The shell of the abalone is exceptionally strong and is made of microscopic aragonite (calcium carbonate) tiles stacked like bricks. Between the layers of shells is a clingy protein substance. When the abalone shell is struck, the tiles slide instead of shattering, and the protein stretches to absorb the energy of the blow.

The dust created through the grinding and cutting of abalone shell is toxic, and carvers and cutters must be careful so as to not inhale the fine dust particles.



By Knowing Stones

This large snail can produce beautiful, natural blister pearls that are form on the shell's interior, and natural whole pearls that form within other body parts. Their shape is irregular and their color is a wonderful combination of green, blue, pink, purple, silver and occasionally white.

Culturing Abalone pearls is very difficult for a couple of reasons.

First, because abalones are single shells, their bodies are not protected by bivalve shells and therefore their body is vulnerable during the farming process.

Second, they have no blood-clotting mechanisms and will bleed to death if injured, so the incision made during the culturing process will most likely not heal.

Third, if all goes good and the transplant takes there is still the problem of their nature, because they feed by trapping algae under their foot, and scraping it off, and the movement dislodges the implanted nuclei.



By Imgreto

Refractive index	Shell 1.53 – 1.69 / Nacre 1.57
Hardness	2.5 Mohs scale
Specific gravity	Shell 1.3 / Nacre 2.56 – 2.78
Crystal System	N/A
Crystal Habit	N/A
Fracture	Conchoidal
Luster	Dull to Vitreous

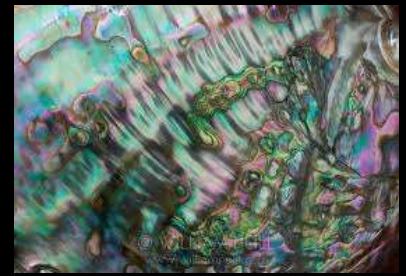


By Nicholas Varney



### Synthetics and Imitations

Although abalones are not synthesized, both the shells and the pearls can be imitated by plastic or glass.



### Evaluation and Use

Abalone pearls are extremely rare and instantly recognizable, highly prized by collectors and many jewelry buyers whatever the size. The great majority of natural whole abalone pearls are irregularly shaped, which makes a symmetrical shape highly valuable. The odds of finding a pearl in an abalone shell are estimated at 1 in 50, 000. A diver found one off the California coast that weighed 118.57 ct which was sold at retail for more than \$140, 000.

The abalone shell is soft enough to be cut with a jeweler's saw, and filed down using abrasives yet the structure of the shell is tough enough to resist cracking and splitting. It can be put on a dopstick and polished into a cabochon, tumbled or drilled to use as beads, made into carvings or cameos, and can also be engraved. It can be used for inlay work, retains its luster, and polishes well. It can get scratched, and is prone to damage by detergents and alcohol, but whereupon it can be easily re-polished.



By K.C. Bell



By DiyTrade



By Tribu

### Cleaning/Care

Luke-warm soapy water and a soft brush is the safest way to clean both the shell and the pearl of the abalone.



By Aldén Guitars

### Metaphysical/Astrological Properties

The sign of abalone is Cancer, and it is the birthstone for June. It vibrates to the number 2. It aligns the etheric body and balances the feminine qualities. It is said to bestow tranquility, abundance and spirit. Great for working through and soothing emotional issues and encourages calmness.

Abalone shell is connected with family, in particular motherhood. The shells are intimately connected to the sea, which represents the tides of emotions. It will help give harmony to relationships and grow sensitivity to others.

These vacated homes have been used to provide boundless growth in all areas of endeavors. They can be used to stimulate intuition, sensitivity, imagination and adaptability. It promotes co-operation between the self and others, and within the self. Brings the energy of continuity to the environment and instills a stable atmosphere. It has been revered by the ancient tribes throughout the world as a magical gift from the sea, one which can stimulate fertility of both the mind and body, and can protect against uncooperative attitudes and actions. Abalone strengthens the immune system, benefits the heart and helps digestion. The shell can be used in the treatment of calcium deficiencies.