

Gemstone Beads

Designs that connect us to ancient history

Mankind has instinctively adorned himself with whatever he finds that interests him. In prehistoric times, the easiest way to wear a gemstone was to find one with a hole and string it on a piece of skin. As the demand for jewelry increased, mankind developed the skill to drill a hole where none existed. The first man-made holes were drilled in soft materials like shells and seeds, but by 4000 BC craftsmen were drilling in harder stones like quartz and agate. Trade networks developed where raw materials sourced in less technically advanced cultures were traded for finished beads.

Abrasives used in shaping and drilling gemstones have changed over the years, but the basic principle is the abrasive needs to be harder than the gem being worked on. In prehistoric times, the abrasive was probably just sand which is mostly quartz about 7 in hardness. Eventually it was discovered that crushed low-quality sapphire known as corundum could be used as a faster cutting abrasive for everything except diamond and sapphire. The ability to drill and shape gemstone beads was further enhanced by the production of synthetic silicon carbide powder in the late 1800s. Silicon carbide was available in strictly graded mesh sizes resulting in more predictable production results and its hardness of 9.25 allowed for

faster cutting. Rough diamond powder has always been used to cut and polish sapphires, rubies and diamonds, but as the price of diamond powder has become more affordable, it is now the abrasive of choice for most gems. It cuts faster and cleaner, and is more economical in the long run.

Designing a new piece of jewelry usually requires a great deal of

planning. When it was decided to run an article on gemstone beads this month, we challenged ourselves to think creatively and come up with designs that used beads, but involved more than just bead-stringing. Some designers worked with small precious gem beads incorporated in larger designs, and others made their own larger beads from rough rock taking their cues from history. There is almost always a lot of discussion and feedback (even ribbing) between us when working on new designs.

The most unusual perhaps, is a Lake Superior beach rock, known as basalt, with rubies and spessartite garnets inserted in openings. When the idea was first conceived, we were not sure of the size or type of gemstone bead that would be inserted. We cut the openings first to get the overall design layout, then tried various beads until we settled on the beautiful fall colors of red and orange.

In our design work we always strive to make pieces that are both durable and wearable. Precious gemstone beads come with tiny drill holes that would only take a very thin wire, so we enlarged the holes allowing us to use larger gold wires increasing the durability of the piece.

All that work left some scars on the basalt so it needed to be refinished. We tried polishing the rock, but didn't like the result. What we really wanted was the even, semi-rough finish of a rock picked off the North Shore. We tried putting the rock in a tumbler with a regular load of agates for a few hours and - voila!- the beach finish was restored.

The final decision made was how to attach the pendant to a chain. This can be just a hole drilled through the rock, an elaborate cap studded with precious gems, wire wrapping, or some type of metal framework that holds the basalt with prongs. In this case, we opted for a simple hammered round bail that would least interfere with the design of the pendant.

Lapis Lazuli and 22KT Gold/Sterling BiMetal Beads \$2400

Ruby and Spessartite Garnet Beads in Basalt and 14KT Gold \$590

Maw-sit-sit and 14KT Gold Bead \$790

Black Spinel and 14KT Earrings \$195