

## A Family of Beryls

### Palette of pastels includes old faves Aqua and Emerald

Picture the seawater blue of an aquamarine from Brazil, the verdant green of an emerald from Colombia, the pastel pink of a morganite from Madagascar and the bright yellow of a heliodor from Russia. All of these gems are beryl and are nearly identical but for the minor impurities that impart color. The majority of beryls form as crystals in pegmatite. Generally speaking, a pegmatite is a dike-like body of once molten rock that usually contains very large crystals and often, rare minerals. Beryls are beryllium-aluminum-silicates and when pure they are colorless. Their molecular structure allows the introduction of various foreign substances and it is these that give rise to beryl's kaleidoscope of colors.

Aquamarine (derived from the Latin words for water and sea) is the blue to blue-green variety of beryl created when iron intrudes into channels formed in the molecular structure. The Santa Maria mine in Brazil has historically been one of the most significant sources of fine quality aquamarine. This mine, located near Belo Horizonte, Minas Gerais is an extensive commercial beryllium mine that also contains gem quality crystals. While not currently in production, thousands of kilos of high-grade aquamarine have been produced from this mine alone.

Emerald can be colored by either Chromium or Vanadium. Emeralds from Colombia contain Chromium and are considered the standard for this gem. There are no other gems that can match the pure, bright green color of a fine Colombian emerald and we can only imagine how unusual these gems must have appeared to the Aztecs before the proliferation of brightly colored glass. The modern emerald bounty began almost five centuries ago when Spanish explorers arrived in the New World. Montezuma presented Cortes with a staggering emerald crystal much larger

and finer than any ever seen before. The Spaniards spent years searching for the source of the fantastic green gems. They found it finally in what is today Colombia.

Morganite, named for gemstone collector and financier J. P. Morgan, is created when beryl contains the trace element manganese. These pastel peach-colored gems are usually cut large because the pale color washes out in small sizes.



**Emerald and diamond in 14KT & Platinum \$1550**

When iron actually replaces aluminum instead of intruding into the molecular channels, beryl can be a range of colors from pastel green to yellow. The trade name for this color range is heliodor. The name goes with the color very well, being derived from the Greek *helios* meaning sun and *doron* meaning gift. So heliodor is a 'gift from the sun' to Man. Heating these stones removes the color, resulting in the colorless variety of beryl, goshenite. Colorless beryl has little significance as a gemstone. It does, however, have some historical importance, being used in ancient times to make spectacles.

In 1904, Maynard Bixby discovered red beryl in the Thomas Range located in Juab County, Utah. This variety of beryl is extremely rare, and not commercially available. The red color is also thought to be from manganese.

With all its multitude of colors, beryl offers something for everyone and every occasion. Come and check out some of the new beryl jewelry featured this month at Veberod!



**Multicolor beryl and tourmaline pendant in 14KT recycled gold \$1020**



**Aquamarine  
Left - White gold ring \$1400  
Top - Silver cuff \$600  
Right - Yellow gold ring \$1030**

