BLACK DIAMONDS: GOING OVER TO THE DARK SIDE

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Once spurned, black diamonds have taken the jewelry market by storm. But what are they and what do you know about them?

by

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In the 1980s, the rage was for white (meaning colorless) diamonds. Stones with even a trace of yellow were condemned. “D” color was a term on everyone’s lips, if they dealt with jewelry. But in the opening decade of the 21st century, the wheel turned. Not only were golden, brown and cognac diamonds--and even gray rough stones--acceptable and fashionable, black diamonds moved into the jewelry market. And they’re showing little sign of moving out of it again.

Over the years, hematite has been marketed as “black diamond” because of its high luster. (“Marcasite,” actually pyrite, has also been used in jewelry because of its dark color and high luster.) But the black diamonds you see on the market today are real diamonds, not other minerals masquerading as diamonds. In fact, there are actually five different kinds of black diamonds, either by heating or by irradiation.

The most common black diamonds have been treated to change their color. In fact, estimates Gary Roskin, host of the Roskin Gem Report (www.roskingemreport.com) 90 percent or more of the black diamonds you see on the market are the heat-treated, industrial-grade diamonds, commonly called “bort”. Bort is a naturally dull gray, translucent to opaque massive material, meaning it is made up of minute crystals, randomly oriented. It is believed that during heat treatment, material lining surface-

reaching fractures is converted into graphite. These graphitized fractures are big enough and extensive enough to make the entire diamond appear black.

(While the diamonds most of us are familiar with are “white”—meaning transparent and colorless, or close to it--most mines actually produce only 5 to 20 percent gem, or jewelry-grade, diamonds. The rest of their production is industrial quality, suitable only for use in cutting tools and other abrasives. Even that amount is not enough to feed the world’s massive demand for industrial-grade diamond abrasives. Tons of industrial diamonds are manufactured synthetically to meet an almost endless need for cutting materials.)

Poorly made (or cut) heat-treated black diamonds may show pitting on the surface, but only under magnification and the correct lighting. “I haven’t seen anything so obvious that you see damage with the unaided eye,” says Roskin. No one who has worked with them reports any problems with durability during wear, setting or cleaning. (Cleaning with nitric acid can turn the graphitized fractures white, but chances are you won’t be doing this in your shop.)

In the second category of black diamonds, “off-color” diamonds are irradiated. These diamonds are noticeably yellow or brown—around M, N, O or lower in the GIA color grading system. They are less marketable than stones with higher color, but don’t have enough color to be saleable as fancies. Irradiation turns the stones a very dark green that appears black unless you pass a light through a thin section of the stone, like that near the girdle. Very low-clarity grade diamonds—such as those in the I-2 or I-3 category—may also be irradiated to black, concealing the inclusions and making the stones more desirable from a fashion standpoint. Because stones of such low clarity grades may (and often do) contain fractures, cleavages, and large crystals that might

affect durability, these could conceivably break during hard wear or even during setting or cleaning in a steam cleaner or sonic.

Black diamonds in the third category have not been treated. They are simply heavily included with black or black-appearing inclusions, often mistakenly called “carbon.” (Colorless inclusions can appear black depending on the way light reflects from them.) This is the category into which the famous 67.50 carat “Black Orlov” diamond falls, says Roskin, who actually participated in grading the supposedly “cursed” gem. These stones may have areas of transparency, but they are largely opaque because of the number and density of the inclusions. Because they are so heavily included, durability of these stones may become an issue during wear, setting or cleaning.

These are probably the only kinds of black diamonds you’ll find on the open market. However, there are two other types of black diamond that are interesting.

Carbonado is a type of industrial stone found only in Brazil and the Central African Republic in the same sedimentary geological horizon. The inclusions, structure and chemical impurities are unlike those found in any naturally occurring diamonds mined on earth. Scientists now believe *carbonado* actually came from a large asteroid (a kilometer or more in diameter) that struck the earth more than 3 billion years ago when the African and South American continents were still joined.

The last category of black diamonds is that of the exceedingly rare natural black stones. According to GIA’s John Koivula, the color in these stones is caused by “microscopic graphite crystallites evenly dispersed throughout the stone.” Under magnification, he says, they “look like pepper spots.”

“The black color of these [diamonds],” says Koivula, “comes from the total `black out’ caused by light being trapped by the multitude of tiny opaque, dull, very dark grey to black inclusions. These [stones] can appear very transparent but black. These are the true

fancy black diamonds and are extremely rare.” In a lifetime of looking at inclusions in gemstones of all kinds, Koivula says he has only seen two of them.

Black diamonds attract designers for many reasons. “Contrast,” says Boulder, Colorado, jewelry artist Todd Reed. “They look great with white diamonds.” Black diamond contrast not only with colorless stones, they create a stark “graphic look” when combined with gold or platinum, says Devta Doolan a jewelry artist from Portland, Maine. For Portland, Oregon, jewelry artist Sasha Samuels, black diamond have “a sophisticated, understated elegance. They put you outside the box.” In addition, there is the contrast of value—high value white stones, with lower value black ones. Of almost as much appeal to designers are all the metaphorical uses one can attach to black diamonds: darkness, evil, opacity, the origin of the universe, black holes.

In a time of economic uncertainty, black diamonds certainly fit the price point bill, for makers and buyers alike. Stones range anywhere from $8 to $150 a carat depending on cut; type of diamond (industrial bort or low color/clarity gem quality stones); and type of treatment. Beads range from several hundred dollars to several thousand dollars a strand depending on the weight of the stones.

Black diamonds have contributed to the return of cutting styles that have not been common for close to 100 years, primarily the rose cut, which is flat on the bottom, faceted on the top. Opaque, heavily included or merely very dark black diamonds have no need of a pavilion—the bottom of faceted stones—the purpose of which is to act like multiple angled mirrors to reflect light that penetrates a stone back out the crown (top) to the eye of the viewer.

But Reed says that customers like the “vintage” look that rose cuts give to jewelry. Even when the diamonds are cut to a standard brilliant shape, designers, such as Doolan,

simply turn the stones on their heads, putting the pointed pavilion end up. The stones are often cut into beads, a style not commonly used for colorless stones.

Acceptance of rough diamonds and black diamonds in jewelry has also led to the acceptance of even more non-traditional forms of diamonds: heavily included slices that are chosen for their patterning. Samuels often showcases these diamonds that, in another era, might never have been cut.

“A lot of women identify with these stones,” she says, because they feel that something about them is less than perfect. Most women, says Samuels, “have a unique beauty that’s not Barbie doll.”

Black diamonds have introduced some diamond-resistant customers to the world’s most luxurious stone. “A lot of our customers are not diamond lovers, but they like these,” says Reed. They think they’re beautiful and unique.”

“There has always been the little black dress,” says Roskin. “So why not black and white jewelry? This is a trend that’s here to stay.”

The Black Orlov

Diamonds with curses can give us such a thrill of, if not terror, exactly, at least a little nervousness. (How often has the Hope Diamond, which resides in the Smithsonian Institution in Washington, D.C., been blamed for the nation’s ills?) And curses make for such great stories. Maybe that’s why so many large diamonds come with a cursed legend—even if someone had to make it up along the way.

The Black Orlov has such an imaginary curse, not to mention a probably imaginary legend. Supposedly cut from a 195-carat stone known as the “eye of Brahma,” it was said to be stolen from an idol in Pondicherry, India, which is why it was cursed to kill anyone who owned it). It was said to have caused a couple owners to jump to their deaths.

“Regrettably most accounts of the early history of this diamond must be treated with the utmost skepticism, “writes Ian Balfour, in his book “Famous Diamonds.”

Curses, whether historical or created for marketing purposes—even when the curse and stone pedigree has largely been debunked--can be valuable selling points. At different times in its history, the Black Orlov has sold for prices ranging from $90,000 to $1.5 million.