

Diamond-Wrongs

Recently a student of mine, who had been looking for a gift for his girl friend, asked me if Herkimer "diamonds" were a particularly good diamonds. After explaining to him that Herkimer "diamonds" were really quartz, I began thinking about all the things rock hounds and jewelers call diamonds that are really diamond-wrongs. Sometimes this is an innocent practice (as in Herkimer "diamonds"), but it can be meant to mislead shoppers. In all cases it creates confusion and is sloppy nomenclature. Here are some of the diamond "wrongs" I found on-line and what they REALLY are. Caveat emptor!

Herkimer diamonds are quartz crystals found in vugs in dolostone in central New York. They are often sharply terminated, water clear and sparkly against the grey dolostone or black bitumen matrix, but they aren't diamonds. Little Falls "diamonds" and Middleville "diamonds" are synonyms, named after several towns in the collecting area - obfuscation taken to the second level of confusion.

Other clear quartz rock crystals that have been called diamonds are Alencon "diamonds", Cape May "diamonds", Hawaiian "diamonds", German "diamonds", Pecos "diamonds", Herradura "diamonds", Mexican "diamonds" and on and on. I had heard of Cape May "diamonds" when I was a kid. They refer to rounded pebbles of clear to white quartz picked up along the beaches around Cape May, New Jersey. Their source was the crystalline rocks in the upper reaches of the Delaware River. River and wave transport have rounded and sculpted them, making them popular among east coast beachcombers. Pecos diamonds come from outcrops along the Pecos River in southeastern New Mexico not far from Roswell. They often have a unique orange color, and are associated with cavities in gypsum-bearing limestone and dolostone. But, pretty as these are, they aren't diamonds.

Colorado "diamond" can refer to smoky quartz. Radium "diamond" is also smoky quartz. Since quartz can be made smoky artificially by exposure to radiation, some of these specimens may not only be misnamed, but also faked.

Alaskan "diamond" is similarly a type of quartz rock crystal. Unless you find Alaskan "black diamond" which is polished hematite. Yes it sparkles, but iron oxide is hardly the same as pure carbon. The Russians taught the native Aleuts how to cut and polish this material, which was highly thought of enough to serve as royal gifts. These are beautiful enough in their own right that one wonders why it is necessary to give it a gaudy name. In addition there is a Nevada "black diamond", but that is obsidian, a volcanic glass. Of course there is a real black diamond - a bizarre form also called carbonado, which may be extraterrestrial in origin.

Matura "diamond" is refers to colorless zircon, which is found in the gem gravels of Sri Lanka. Zircon does have an adamantine luster, so clear varieties tend to resemble diamonds in their brilliance. However they do have inferior hardness, and are zirconium silicate, not carbon. Be also aware the zircon is not the same as cubic zirconium an artificial product often used as an inexpensive diamond substitute.

Mogok "diamond", Saxon "diamond", Killiecrankie "diamond", Tasmania "diamond" and Flinder's "diamond" are white topaz. Killiecrankie is on Flinder's Island off of Tasmania, so the last three terms refer to the same thing. These are topaz from granite, that have worn been loose and turn up in beach gravels. Topaz is a hard lustrous mineral to be sure, but these rank only an 8 on the Mohs scale, not 10 and are not as rare. They also lack the brilliance of diamond's luster.

Probably the most ironic of these misnomers is Alpine "diamond" which turns out to be pyrite. Some one buying this thus gets no diamond, but instead a shiny specimen of fool's gold.

Here are some good on-line references about misleading mineral names:

<http://www.gemscape.com/html/misnomer.htm> and

http://www.jewelinfo4u.com/Beware_of_Misleading_gemstone_names_.aspx

The American Federation of Mineralogical Societies has a useful list of approved names for lapidary labels:

http://www.amfed.org/rules/AFMS_Lapidary_Material_Names_2003.pdf

I have a fond memory of the 1995 movie "Congo". In it, a team of adventurers finds King Solomon's diamond mines (guarded, of course, by killer apes). The floor of the "diamond" mine is shown littered with Arkansas quartz crystals ("Arkansas diamonds"), which are being gleefully gathered in by the villain as the apes attack. Was King Solomon duped by unscrupulous labeling? By the way, in the movie the villain's name was "Herkermer".

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