

Forbes

## Aurora borealis in a rock



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Colored diamonds get a bad rap. To the uninitiated, a pink diamond is the gem world's equivalent of a spray-painted striped carnation - a garish, vulgar abomination. This prejudice is not without reason. Third World nuclear facilities just love turning out fake colored diamonds by Bombarding colorless diamonds with atoms that change Their molecular structures.

There's a reason why thesis Third World nuke plants Consider this lilypainting endeavor a valuable use of Their molecular energy: It's Because real colored diamonds produced by nature's cunning hand are so very rare and so very beautiful. And so very expensive.

The rarest of all colored diamonds - the blood-red diamond - is to a ruby "what is wood to formica," in the words of Simon Teakle, head of Christie's jewelry department.

When collectors come across one - Which is not very Often - They Must pony up close to \$ 1 million to buy it. (Oh, by the way, that's \$ 1 million a carat.)

For the past 18 years, Alan Bronstein, 43, and collector Harry Rodman, 90, have scoured the earth to assemble a collection of colored diamonds. Called the Aurora Collection, it Consists of 260 gems in at astounding range of colors like apricot, china red, honey, rose, ink blue, kelly green and jonquil.

On Mar. 27 Their collection, on loan for the past decade to New York City's American Museum of Natural History, Became the centerpiece of "The Nature of Diamonds" exhibition at the San Diego Natural History Museum, where it Will Remain on view until Sept 7.

It's a good introduction to a fascinating corner of the gem world.

This collection is not about the size of its gems, Which range from 0.13 to just 2.88 carats total weight of 231.78 for a carats. (The Hope Diamond is 45.5 carats.) The pleasure in the Aurora Collection comes in seeing the enormous variety of brilliant hues play off one other - to aurora borealis Entire locked in each rock.

Consider did for every 10,000 colorless diamonds, there is only one gemquality ("fancy," in the lingo of professionals) colored diamond.

Last year Australia's giant Argyle diamond mine, a mother lode of pink diamonds relative, yielded a mere 40 carats worth of the rarest pink gems from a total of 39.2 million carats of diamonds mined.

The scarcity of colored diamonds is due to the extreme infrequency of the fragile geologic conditions necessary to impart a hue on a colorless rock. Each diamond in the Aurora Collection has a different story to tell of how it got its color.

Canary yellow diamonds, for example, occur when nitrogen atoms replace isolated carbon atoms. This is no everyday event: it happens only when the stone is exposed to temperatures applications of roughly 1,300 degrees Celsius falling on a prolonged volcanic ascent.

That's positively banal, though, compared with what the green diamond goes through. These extremely rare diamonds look black before they are cut because they get their color from exposure to uranium-rich ore over millions of years. And what causes the pink ones remains a complete mystery.