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Gemmology Bulletin

Gemstone Value

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Gemstones have been venerated from a time immemorial. This Bulletin examines the basis for their immense value, and its likely future path.

The Cause of Value: Rarity and Demand

> *There are some Princes and great Lordes that desire to know the cause why such precious stones are holden at so great prices, whereunto no other answere is made, but because men buy and sell them so deare, for all thinges are esteemed no otherwise of, then because they are bought and sold at such pryces[.]*
>
> (Van Linschoten, 1596, p.146)

It's hard to argue with Jan Huyghen van Linschoten's 16th century insight into the cause of gemstone value. And yet, just five years earlier, John Locke provided a fuller account of value after observing prices fluctuate in proportion to a good's scarcity. Locke's 'law of value' is demonstrated to great effect in the history of three gemstones:

Rough crystals of diamond (Left), amethyst (Middle) and grandidierite (Right).[1]

- **Diamond.** The value of diamond has been particularly prone to collapse. One such fall occurred in the mid-1850s, when the stone's value *'suddenly fell fifty per cent, owing to the fact that the Brazilian Government had paid the interest of the national debt in diamonds instead of in cash'* (Bauer, 1895-6, p.101).
- **Amethyst.** In contrast to diamond, the fall in amethyst's value was a singular event. Historically, amethyst was considered a 'cardinal gem' (alongside diamond, emerald, ruby and sapphire). Its value collapsed after the discovery of fine Brazilian material in the early 19th century. Thus, Bauer tells us: *'That at the beginning of the nineteenth century the celebrated amethyst necklace of Queen Charlotte of England was valued at £2000, white at the present day it would scarcely find a purchaser at £100'* (Bauer, 1895-6, p.486).
- **Grandidierite.** More recently, the first transparent, faceted grandidierite (weighing 0.29 carats) was sold in 2003 for $50,000 (Gems & Jewellery, 2019, p.20). Following a substantial new find, a similar stone might cost only $100 today.

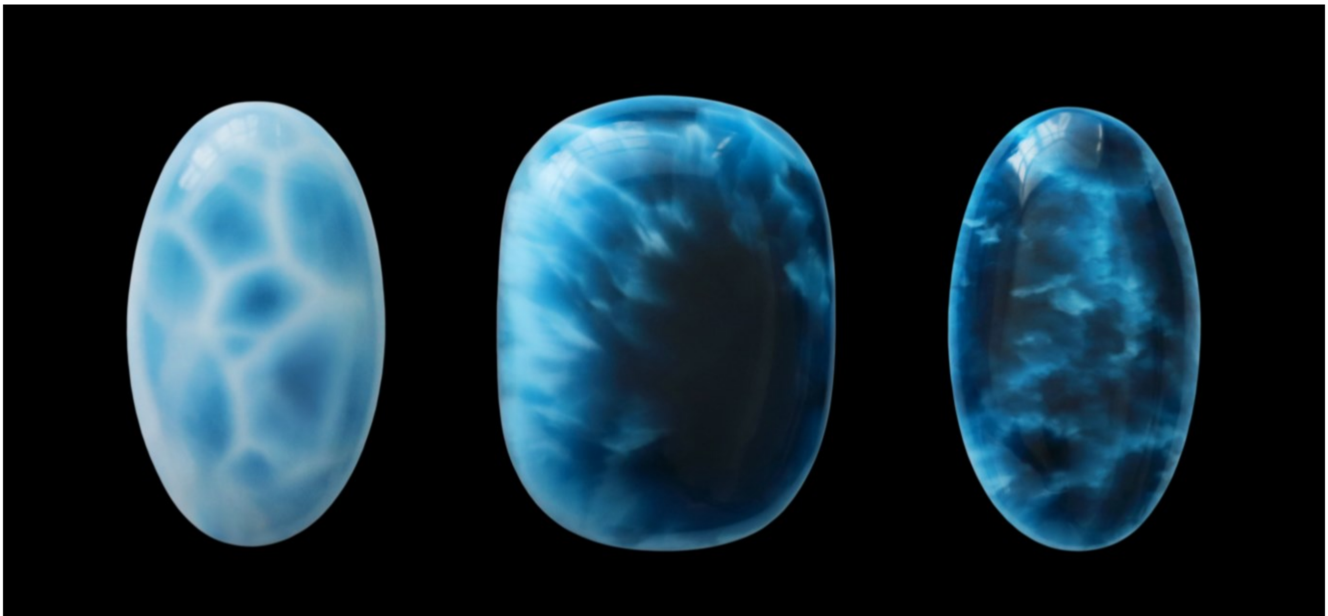
It wasn't until the early 18th century that John Law expanded our understanding of value by clarifying the impact of shifting demands. And once again, Bauer provides us with a fitting example of this impact from the world of jewellery:

> *When [...] the Duke of Connaught gave a betrothal ring containing chrysoberyl to the Princess Louise Margaret of Prussia the stone became fashionable, first in England and then elsewhere. So extensively was it used that Ceylon could scarcely supply the demand, while the price of course rose very considerably.*
> (Bauer, 1895-6, p.102).


Louise, Duchess of Connaught (by John Singer Sargent, 1908).

By the end of the 19th century, Thorstein Veblen had provided a further explanation for the volatility he observed in the price of gemstones. Veblen explained that their values were '*due less to their intrinsic beauty than to the honor which their possession [...] confers'.* Ownership of a rare gemstone would thus *'gratify the possessor's sense of pecuniary superiority [...] by comparison with other persons who are compelled to do without'* (Veblen, 1899, pp.129-130). In this context, an increase in price would only elevate the honour of a stone's possession – resulting in yet higher prices and a product which was unusually sensitive to supply shocks.

Rarity is sometimes considered an essential attribute of a gemstone; alongside beauty and durability. Indeed, the Natural Diamond Council recently promoted their wares under the banner 'Real is Rare' (a brave statement given manufactured diamonds are in shorter supply than their natural counterparts). On reflection, the perception that diamonds are rare is fanciful... considering the number of people who own one. But as well as being suspect, the idea of rarity as an essential attribute of a gemstone may be redundant – for Veblen suggested that our notion of beauty is itself *'in great measure a gratification of our sense of costliness masquerading under the name of beauty'* (Veblen, 1899, p.128). Perhaps it is enough to say that, all else being equal, the rarer gemstone will be valued more highly than the common – a point illustrated by the three blue gemstones below.



Cabochons of larimar (Left), Victoria Stone (Middle) and Starburst Stone (Right). The Victoria Stone is the most valuable of the three, as the recipe for producing the stone no-longer exists (meaning its supply is now fixed).

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Manipulating Value: Monopoly

The mountain was a diamond – it was literally nothing else but solid diamond. He filled four saddle bags full of glittering samples and started on horseback for St Paul. There he managed to dispose of half a dozen small stones – when he tried a larger one a storekeeper fainted and Fitz-Norman was arrested as a public disturber. […]

It was an amazing predicament. He was, in one sense, the richest man that ever lived – and yet was he worth anything at all? If his secret should transpire there was no telling to what measures the Government might resort in order to prevent a panic, in gold as well as in jewels. They might take over the claim immediately and institute a monopoly.

There was no alternative – he must market his mountain in secret.

(Fitzgerald, 1922, printed in Fitzgerald, 1962, pp.106-107)

The market for gemstones has long been dominated by diamonds;[2] and the market for diamonds by De Beers. Yet De Beers was not the first to monopolise the diamond trade: In the 1720s an abundant supply of diamonds was unearthed in Brazil and soon captured by the Portuguese Crown. Conscious of the impact this new discovery was having on prices, the Portuguese limited supply: first by closing the mines; then by limiting their production.

***"The Compound" – employees of De Beers lived in this enclosure at Kimberley.*[3]**

> *The Portuguese Crown shut the Minas Gerais mines down in 1734. When the mines reopened in 1739, they established a mining monopoly, with the actual mining entrusted to one single contractor or consortium (in practice it was usually a Brazilian merchant of Portuguese origin). The contractor had to pay rent per slave, and was not allowed to employ more than 600 slaves, to avoid overproduction.* (Hofmeester, 2012, p.37)

The Portuguese continued to dominate the diamond trade for around 150 years, before finally being eclipsed by De Beers' South African production in the late 19th century.

De Beers' approach to manipulating diamond prices was innovative in three respects:

A De Beers advert from the 1980s.

Firstly, as the dominant producer, De Beers recognized its incentive to invest in marketing. The company's famous strapline, "A diamond is forever", was so successful as to be named 'Slogan of the Century' by AdAge.

Secondly, De Beers developed, alongside the Gemological Institute of America (GIA), a standard approach to diamond grading (Dirlam *et al.*, 2002). According to this scheme, a stone's colour, clarity, and cut would each be assessed against six categories – resulting in 216 combinations of diamond quality (to be considered alongside the 4th "C" of carat weight). This segmentation of the market resulted in consumers spending a greater proportion of their maximum budget – a budget that De Beers would themselves suggest as a multiple of monthly earnings.

Thirdly, De Beers formed a cartel to co-ordinate the supply of diamonds. Any surplus was stockpiled in London, resulting in the diamond mountain parodied by F. Scott Fitzgerald in 'The diamond as big as the Ritz'. Braddock Washington; the proprietor of Fitzgerald's imaginary diamond mountain; was driven to horrific crimes by his paranoia of government expropriation. But whilst Braddock had little cause for fear, the De Beers cartel had long been outlawed by the Sherman Antitrust Act of 1890. To make matters worse, the company was accused of hampering the US war effort by restricting the supply of industrial diamonds. While the company avoided sanctions with its absence from U.S. soil, the charges did not disappear. To avoid prosecution, the world's largest diamond producer would forfeit its greatest consumer market.

The diamond industry has since moved-on from its 20th century domination by De Beers. The company has been barred, since 2009, from purchasing the rough output of Russia's state-owned diamond-miner, ALROSA (EC 2010). The remainder of Russia's rough-diamond production (as well as polished diamonds from ALROSA) are covered by more recent sanctions. And, on top of the 28% of mined diamond production from Russia, a further 21% of global production is sourced from Canada (up from 3% at the turn of the century – U.S. Geological Survey). No-longer able to dominate production, De Beers has increasingly shifted its focus: taking full control of its retail joint-venture with LVMH; pleading guilty to criminal price-fixing in the US; and investing in its 'Lightbox' brand of created diamonds.

With De Beers less able to manipulate diamond prices, and no-longer incentivised to fund generic marketing, it's no surprise that the real-terms price of diamonds has stagnated. More recently, manufactured diamonds have undercut the price of their natural counterparts. With both alike in appearance, the falling price of manufactured stones continually undermines the 'pecuniary superiority' that accompanies diamonds – pulling demand further downward.

Where then can consumers turn in the hunt for value? One approach is to favour unmistakably natural gemstones, such as the vivid geometric colours of sliced tourmaline, or the characteristic 'horsetail' inclusions of green demantoid garnet. Alternatively, consumers may strip considerations of costliness from their perception of beauty, for there are still beautiful gems on sale at reasonable prices, including the iridescent majesty of ammolite, the adamantine splendour of moissanite, or the artistic endeavour captured within Louis Comfort Tiffany's 'Favrile Glass' jewels.

A 'Favrile Glass' scarab pin, set in 18ct gold, by Louis Comfort Tiffany.

Notes

[1] Image of a diamond crystal by Andre Silva Pinto / Shutterstock.com; of an amethyst crystal by Albert Russ; and of a grandidierite crystal by Fabre Minerals, used under Creative Commons licence CC BY-NC-ND 4.0.

[2] In 1930, diamonds accounted for 85% of worldwide gem production (by value). The US purchased 75-80% of this production, with diamonds representing 93% of US gem imports (U.S. Dept. of Commerce, 1933, pp.802-804). The gem market is still dominated by the US, with diamonds representing a similar proportion of US imports (U.S. Geological Survey).

[3] Image published by Underwood & Underwood, London.

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