

## GEMSTONES

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In 2000, gemstone mining and production increased despite the continued downturn in the market with increased mining activity in a number of countries, especially, Nigeria, India, Pakistan and China. The markets remained awash with low-quality goods and supply grossly exceeded demand. Prices of low-quality commercially treated gems continued to fall and quantities of these materials were available at very low prices. Fine quality untreated gems were for the main part still in short supply, but buyers were becoming far more concerned that goods were actually of the quality described and many more were insisting on independent gemmological certification with each purchase.

Over production of jadeite in Myanmar and the flooding of the market with cheap treated artificially coloured material had a negative effect. A wide range of other materials such as quartz and marble were being dyed, stained and otherwise treated to look like jadeite, resulting in many dealers simply not buying this material any more, as the market had proved to be far too speculative.

In the US, the demand for gemstones remained strong for the first half of 2000 but tailed off towards the end of the year, owing largely to the US Presidential elections. The coloured gemstone markets showed a slight sign of recovery but the demand was still centred elsewhere, on diamonds and pearls. Fine quality gems were still, however, in great demand and there was a shortage of larger gems, especially untreated rubies and sapphires.

It was reported that during 2000 a collection of 300 pieces of the rare gemstone ekanite had been sold to a jeweller who was mounting them and selling them as finished articles (all these stones are a deep bottle-green colour). Ekanite is the most radioactive

of the natural gems (it contains thorium) and is found in the gem gravels of Sri Lanka. There is a potential health risk in wearing such a gem.

### **Regional Production Review**

There was little increase in gemstone production in South America and many mines in Brazil were dormant and simply not being worked. African production increased over the year and there were notable finds of gem materials in Nigeria and Madagascar.

Untreated gems of the finest quality were very hard to find although there was no significant increase in prices from last year.

There was large-scale mining in China for a range of gem materials, and aquamarines, peridots and sapphires were extracted, cut and polished and marketed in considerable quantities. China is now a consumer market for gems and much of the new production is being purchased internally.

The Indian market was not quite as buoyant as last year and although there was considerable production of gem materials, there was still a shortage of fine quality stones. There were a number of good quality medium-sized chrysoberyl catseyes produced in the State of Orissa but most were of a dull green or yellow colour, and very few were of the desired honey colour. There was production of alexandrite but very few fine gems were coming on to the market place.

Pakistan had a bumper year with finds of rubies, emeralds, and recently sapphires in the Hunza area. Aquamarine, peridot, and a large deposit of multi-coloured fine quality tourmaline was discovered, some of it rivalling the size and colours of the best old Brazilian production.

In Africa, Madagascar produced a wide range of gem materials. Sapphire production was substantially increased. Most of these stones are a less commercially desirable shade and the bulk of them were subsequently heat-treated. Low-quality ruby was also produced in quantities, together with a range of aquamarines, chrysoberyls, rose quartz and rock crystal.

In Nigeria, large finds of pink tourmalines and multi-coloured tourmalines were reported, and aquamarine continued to be produced throughout the year. The very wet weather conditions in Mozambique and South Africa had an effect on small-scale gem mining, and production of coloured gems from these sources was down on the year. In Zambia there was production of emerald, and the mines of Zimbabwe still produced material despite the political unrest facing the country.

There was a slowdown in gem production in Afghanistan, although some very fine material was extracted during the year. The best quality lapis lazuli was still in short supply and was hard to obtain.

Sri Lanka was still suffering from its continuing political problems and gem production was sporadic as a result.

There was a considerable increase in Myanmar production during 2000, and quantities of ruby were produced. There was however a shortage of fine-coloured stones in excess of four carats, and although the prices of general material remained low the larger fine stones still held their prices. More of the low-grade material was subjected to various treatments to improve overall appearance and this helped to add to the overall glut of material already in the market place.

Pakistan produced a quantity of rubies, and some were of a paler hue and were therefore classified as pink sapphires. Afghanistan production was limited this year and a few stones were coming from sources in Russia and Tajikistan.

Madagascar continued to produce quantities of low quality rubies, Tanzanian material was readily available, and India continued to produce a number of large low-quality stones from the mines south of Mysore.

### **Sapphire**

There was a shortage of good quality Sri Lankan sapphires during 2000, and it was reported that some of the local dealers were importing rough material from Madagascar for cutting and heat treatment, only to try to sell it later as original Sri Lankan gems.

There was no significant increase in production from the sapphire mines in Australia, Thailand, and Nigeria during 2000. China increased its mining operations but no increased production was obvious in the market place.

Madagascar produced quantities of low and medium grade sapphires, with the find of a few larger fine gems during 2000. Most of the material needed heat treatment to improve its colour to more commercially acceptable shades.

Pakistan produced for the first time gem quality crystals of sapphire with a good blue colour and a colour change to purple (under tungsten light), which is found in the yellow marbles in the Hunza Valley. The gems are very similar in appearance to those of Myanmar and Tanzania.

The strict controls imposed in 1999 by the Tanzanian Government on gem mining of the Tunduru deposit kept production down to minimal levels throughout 2000.

### **Emerald**

Colombian emerald continued to be available in large quantities during the year. There was a tail off in the production of very large (over 15 cts) stones and the bulk of the production was of much smaller gems. The Brazilian mines continued to produce quantities of medium-to good-quality emeralds, and occasionally some fine-quality gems were

mined. Afghanistan and Tajikistan only produced very small quantities of high-grade gems. Madagascar, Nigeria, Zambia and Zimbabwe all produced a range of gem material in 2000. Pakistan increased its production from the Hunza Valley deposits. No data were reported for the Russian mines in the Urals during 2000.

### **Aquamarine**

Aquamarines were produced in commercial quantities in Brazil, Sri Lanka, China, India, Pakistan, Mozambique and Madagascar. Nigeria continued to produce some very fine quality stones, and there were reports of new mining of the old deposits in the Ural Mountains in Russia.

### **Topaz**

There was a very large quantity of naturally irradiated Russian topaz on the market in

2000 all of which will fade to near colourless when exposed to bright light or mild heat. Some were being sold as stable stones (which are not light or heat sensitive) and a number of people lost sums of money when trying to re-sell these stones. The mining activity in Brazil was very limited and no large quantities of topaz were produced. Pakistan mined a number of light sensitive stones and a smaller number of a stable orange and pink colouration.

A number of African localities produced colourless material which is used for irradiation and heat treatment to produce blue stones. It was reported that some blue stones, which had come on to the market, were still residually radioactive and Jewellers were urged to check their stock for potentially dangerous radioactive gems.