

## Absolute Action instals Fibre Optic Lighting at The Vault - Natural History Museum London

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By Jolyon & Katya Ralph

I've just returned from the launch party of the new permanent gallery at the Natural History Museum called "The Vault".



Alan Hart, curator of Mineralogy (and described by one newspaper recently as 'the king of bling') at the entrance to 'The Vault'

For those of you who know the museum, this replaces the meteorite gallery that used to be at the far end of the systematic mineral gallery. I was invited along with lots of people who are rich, famous, or both, to view the new gallery, and to cast my critical eye over it.

The problem with mineral displays in museums is that there is always some element of compromise. Add

to this that several times, museum staff, in museums around the world, have confided to me that they have had to fight against designers and marketing people, rather than truly cooperate with them, as their aims for the displays were complete odds with the curatorial staff. With this in mind, I was cautious about what to expect.



**The Launch Party – people had to queue to view the gallery**

The invited mix of celebrities, media people, curatorial staff and mineral dealers (I don't really fit into any of those categories, and there was only one celebrity I actually recognised) descended on the museum at 7pm for an after-hours opportunity to view the new gallery, eat and drink. As I had to stay sober and alert to write this review when I got home, I declined the free alcohol and stayed to the cranberry juice. And not only that, I had to wear a suit.



**Mike Rumsey from the mineralogy department (right) and myself**

But enough about the party, you want to know about the gallery. Is it any good? The answer to that is simple. It's excellent. For once, it seems everyone from the curators to the designers to the PR and marketing people have actually worked together to create something that works well. The space is well designed, and not over-crowded with minerals. The walls are light, the cabinets are modern and well placed. The lighting is excellent and the specimens are well chosen. Here are some views of the displays:



Five of the most important specimens are displayed in individual cabinets. These include a large mars meteorite, the La trobe crystalline gold and the 'Devonshire Emerald'. Admiring the specimens are Robin Rennie (Crystal Classics) and her partner Chris



The gem displays in the center of the area. Well designed and well lit.

Particular praise has to go to the labelling. With "The Vault", Alan and his team have decided that they need to take a small number of exceptional specimens and tell their stories. Some are exceptional specimens in their own right, and some are exceptional because of their stories. Here are some examples of specimens on display and the descriptive labelling.



**Sourcing diamonds from rivers and dry ground**

Back, from left to right:  
 Diamond, limonite, gold on quartz pebble, Golconda, India, 1923.  
 Diamond, 'yellow ground', kimberlite, 1872, and diamond, 'blue ground', kimberlite, 1874.  
 Both Colesberg Koppie (later Kimberley mine), South Africa.

The stone on the far left was owned by the writer John Ruskin and exhibited in the Great Exhibition in London, in 1851. It was found in a river deposit in India. You can see where the river has worn the surrounding stone into a smooth pebble, leaving the hard brownish diamond unscathed. The crystal in the centre is a rare survivor of the South African diamond rush in the late nineteenth century, when source rocks of diamonds were first discovered. Previously they

had only been found in river deposits. The crystal is from the very top, weathered surface of the early mine, known as 'yellow ground'. As the miners dug deeper, they found unweathered 'blue ground'. This is where the rock on the top right is from. It has a large fine pale yellow diamond embedded in it. The mine eventually closed in 1914, by which time it was more than one kilometre deep.

**Diamond jewellery**

Front, from left to right:  
 Hairpin, western Europe, 1830-1840  
 Ornament, western Europe, late nineteenth century  
 Brooch, western Europe, about 1850 with later additions

Here, the diamonds have been mounted to make the most of their beauty. The flower in the brooch on the right has been set on a small spring. As the wearer moves the diamonds tremble, revealing flashes of coloured light or 'fire' from within the stones. Eye-catching diamonds are enduring status symbols. Clever mounting can make them appear bigger, brighter and thus more valuable.

**Cutting the Koh-i-Noor**

Plaster moulds and cast of the Koh-i-Noor. Cubic zirconia replicas, original and replicas.

The Koh-i-Noor, or most of the world's most famous diamonds, has been in the hands of the rulers of what are now Afghanistan and Pakistan for centuries. It has been the cause of bloodshed, other times it has been a symbol of power but never by purchase after it was claimed by the British in the Sikh wars in 1842.

**Diamonds in Matrix next to diamond jewellery.**



### Cutting the Koh-i-Noor

Plaster moulds and cast of the Koh-i-Noor diamond, made in 1851

Cubic zirconia replicas, original and modern form of the Koh-i-Noor, Scott Sucher, 2007

The Koh-i-Noor, or mountain of light, is one of the world's most famous diamonds. Over hundreds of years, it has passed between the rulers of what are now India, Iraq, Afghanistan and Pakistan. It has changed hands sometimes by treachery and bloodshed, other times by political agreement, but never by purchase. It came to England after it was claimed by the British at the end of the Sikh wars in 1846.

The original Mogul-style cut was not seen as brilliant enough to western eyes. Queen Victoria's husband Prince Albert demanded it be re-cut, dramatically reducing its size. These moulds and cast were made in 1851 as a record of its original shape. The replica, made by painstaking measurements, allows us to see the original form of the diamond and imagine the effect it had on those who possessed it.

### Blue :

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Corun

Both :

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Mould of the Koh-i-noor Diamond, and replicas of this famous diamond before and after Prince Albert had it recut in 1851

Emeralds that are smooth, and whose colour is like  
the throat of a parrot, the back of a firefly, leaves of  
the water lily or the tail of the peacock, bring luck.'

The Vedas, translation from Sanskrit by Surindro Mohun Tagore, 1879

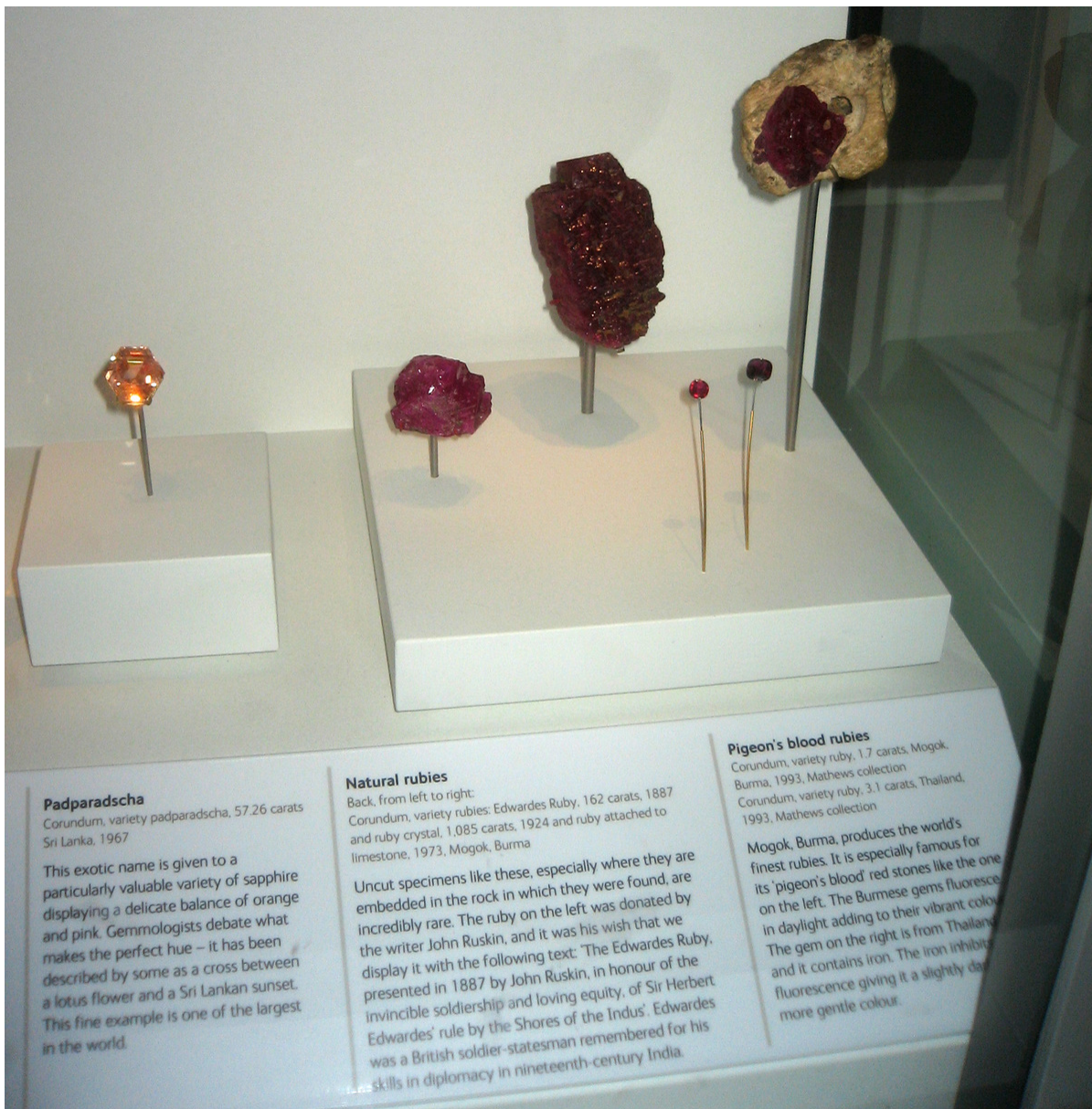


An incredible Morganite and cut stones



More gem minerals on display, cut and natural specimens





**Padparadscha**

Corundum, variety padparadscha, 57.26 carats  
Sri Lanka, 1967

This exotic name is given to a particularly valuable variety of sapphire displaying a delicate balance of orange and pink. Gemmologists debate what makes the perfect hue – it has been described by some as a cross between a lotus flower and a Sri Lankan sunset. This fine example is one of the largest in the world.

**Natural rubies**

Back, from left to right:  
Corundum, variety rubies: Edwardes Ruby, 162 carats, 1887  
and ruby crystal, 1,085 carats, 1924 and ruby attached to  
limestone, 1973, Mogok, Burma

Uncut specimens like these, especially where they are embedded in the rock in which they were found, are incredibly rare. The ruby on the left was donated by the writer John Ruskin, and it was his wish that we display it with the following text: 'The Edwardes Ruby, presented in 1887 by John Ruskin, in honour of the invincible soldiership and loving equity, of Sir Herbert Edwardes' rule by the 'Shores of the Indus'. Edwardes was a British soldier-statesman remembered for his skills in diplomacy in nineteenth-century India.

**Pigeon's blood rubies**

Corundum, variety ruby, 1.7 carats, Mogok,  
Burma, 1993, Mathews collection  
Corundum, variety ruby, 3.1 carats, Thailand,  
1993, Mathews collection

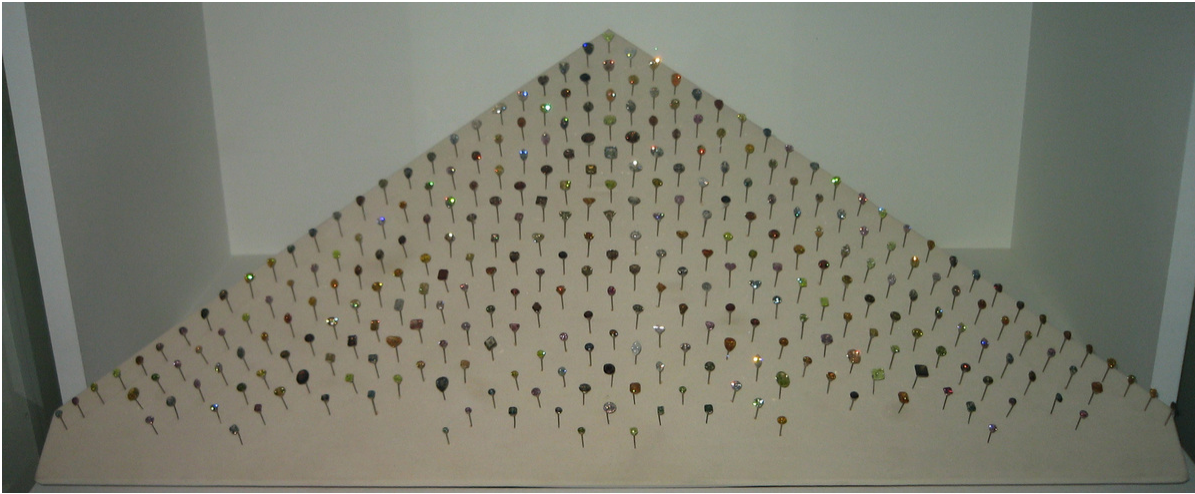
Mogok, Burma, produces the world's finest rubies. It is especially famous for its 'pigeon's blood' red stones like the one on the left. The Burmese gems fluoresce in daylight adding to their vibrant colour. The gem on the right is from Thailand and it contains iron. The iron inhibits fluorescence giving it a slightly darker, more gentle colour.

**Sapphire and Ruby**

Note that none of the minerals have a chemical formula listed with them. I don't, personally, think that is a problem. The gallery is right next to the systematic gallery, where anyone curious can find out about all these minerals and what they are (in fact, there is a handy index poster on the wall near the entrance to The Vault that will allow anyone wanting information on a mineral to home-in on the correct cabinet without needing to know about the mineral's chemistry). What is more important is the display of locality names, and these are given with every specimen where it is known.

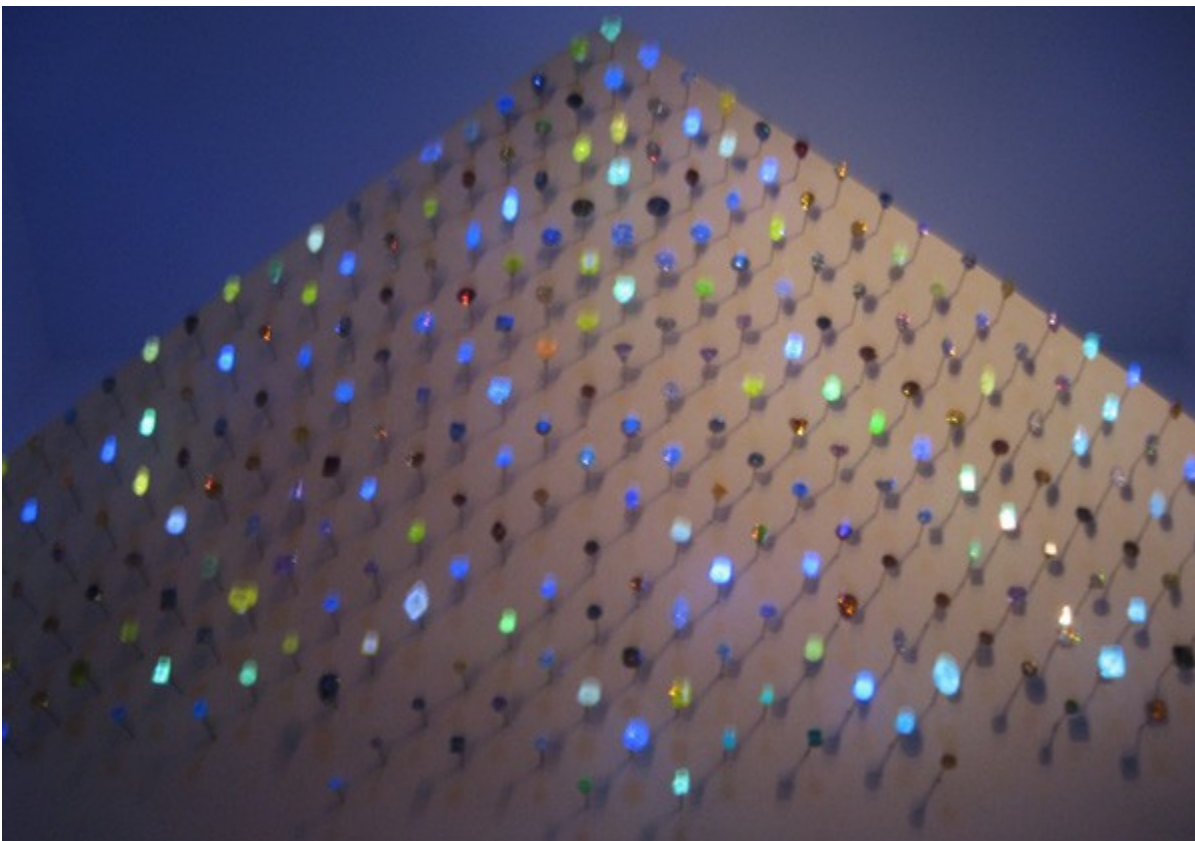
Purists might also argue that the use of varietal names such as "Ruby" is not mineralogically correct. But then, this is a collection of gem minerals, and not using commonly-known gem names in a display like this would be just as wrong as a zoo only putting scientific latin names of animals on the animal pens. But they do put "Corundum, variety Ruby" underneath the name, just to be clear what it is.

One of the highlights for those interested in gemology in particular is the Aurora collection of 296 coloured diamonds (totalling over 267 carats), loaned to the museum by Alan Bronstein and Harry Rodman, who built this over 25 years of collecting. The collection is beautifully displayed, this photo doesn't really do it justice:



**The Aurora Diamond collection**

But the most fantastic part of this is that the display switches between natural light and ultraviolet as you stand and watch it – and this has none of your old fashioned dark boxes with stark UV tubes, I don't know how the UV lighting is done, but the transition is smooth, the UV light is well hidden, and strong enough to be perfectly visible in the bright surroundings of the room.



**A very shaky photo (no tripod, sorry) of the diamonds fluorescing under UV light**

As I said, the display is not just about the best minerals and gems, it's also about the specimens with the most interesting stories – and few can beat the full story of this cursed Amethyst! Mike Rumsey has given a very entertaining talk to our local mineral club about the history of this piece, and the full history is very much more interesting and dramatic than the summary underneath the item can do justice to.



**The Cursed Amethyst**

So, I like the lighting, I like the labelling, I like the display area, and I even like the cut gems. What about the minerals? Well, what mineral display would be complete without a piece of the most recognised modern classic (if that isn't a contradiction in terms) mineral there is – Sweet Home Mine Rhodochrosite. And here it is, with the man responsible for bringing the specimens to the surface – Bryan Lees, who was in town for the opening:



**Bryan Lees (Collector's Edge minerals) standing next to one of his Sweet Home Rhodochrosites, now on display in 'The Vault'**

The Vault figures several specimens that have been loaned by private collectors, which is an excellent way for private collectors to share their best specimens with the world. Amongst these were a group of fantastic gold specimens, including a huge wire gold from Venezuela (which looks like a Kongsberg Silver, but in gold). Unfortunately my photo of that specimen suffered from the dreaded blur (strangely, those photos that were taken as I stood opposite the cursed amethyst didn't come out very well!), but here is a picture of it along with video commentary that appears on demand on something that looks like a giant iPod stuck to the wall.



Ian Bruce (Crystal Classics) talking on recorded video

We didn't need to use it because we had all these people around us to ask, but for those who want to learn more about the specimens, the video commentary looks like an excellent idea.

Here are some more of the gold specimens loaned from private collectors:



Three crystalline golds about 6cm tall



Hope's Nose, Devon gold. about 9cm across

And from the Chatsworth Collection, comes the incredible "Devonshire Emerald", which weighs in at an impressive 1,384 carats, and is about 6cm tall. This was obtained by the sixth Duke of Devonshire from Emperor Dom Pedro I of Brazil in or around 1831. It was displayed prominently at the Great Exhibition in London, in 1851.

Having specimens loaned from private collectors and other institutions helps the museum keep their displays fresh, showing new things and having the potential to display things they would have difficulty in affording with their acquisition budget. But, of course, the museum has some fantastic treasures of its own, and here are a couple of my favourites on display.



**Enormous Platinum nugget and a huge South African Sperrylite crystal – nearly 3cm across!**

But, the star of the show, in my mind, is this specimen.



**The Siderite "Box" epimorph, Virtuous Lady Mine, Devon**

And for all the right reasons. Firstly, it's a true British classic mineral (and, other than the Hope's Nose gold, and a fabulous Bournonite, there weren't any other British minerals I saw). Secondly, it's aesthetic in its own right, a perfect hollow cube with some sharp, paper-white quartz crystals growing inside, and thirdly, it has a mystery attached – what environment could have possibly caused Fluorite to dissolve leaving the (far less stable) Siderite coating it unharmed? In a vault full of gem specimens, it's delightful to see such a perfectly chosen specimen to really show people why minerals are so fascinating.

So. I was truly delighted with the new display room, and Alan and his team can hopefully have a small rest before they start on the renovation of the main systematic galleries (which have remained untouched since I was a child). I, along with many people, have been petrified of the idea of change to the sacred national systematic collection. But, assuming the same people who put 'The Vault' together are involved in the renovation, I truly think we can expect something great.

And, after a successful launch party, Alan has every right to look pleased with himself, especially when "The King of Bling" meets "The Queen" (AKA Dame Helen Mirren)





Alan Hart, Curator of Minerals, Natural History Museum, and Helen Mirren. And no, the stones on his tie are not real

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