

# GOLDRUSH LEDGER



CHARLOTTE GEM & MINERAL CLUB

JANUARY 2012

## *the Prez Sez ...*

Last summer at about this time Linda and I were in Cooperstown, New York (home of the Baseball Hall of Fame) watching our grandson pitch for his Atlanta-based little league team in a 5 day tournament. We were obviously very focused on the games we were watching . . . until we stopped in a local newsstand after dinner the second night. There we found a free handout detailing "things to see and do in the area" and I noticed a town on the map named "Herkimer". Could it be - the site of the famous Herkimer Diamond - just an hour north of where we were?

We excused ourselves from the next day's visit to the hall of fame and the team all- you-can-eat pizza extravaganza and headed north. In less than 2 hours we were in the parking lot of the Ace of Diamonds Mine and Campground. Based on the size and scope of that parking lot, mining Herkimer Diamonds is ap-

parently a great business. There were cabins everywhere, a huge kid's playground, a large 2 story rock shop and after a short walk down a narrow pathway - a huge open pit mine. The mine was started in the early 70s following a big thunderstorm that went through the area with several lightning strikes.

The property owners went into the woods to cut and clear some large trees that were felled by the storm. The biggest of those trees had been uprooted and lay on the ground with a large hole where the roots had been. It was a sunny day and as they approached with their chain saws they saw lots of glitter and sparkle in the root hole. Soon thereafter what had been a small sleepy town with a old time campground became a popular tourist destination for those traveling through upstate New York.

For those of you who have never seen a Herkimer,

it is a double-terminated quartz crystal with 18 facets. These crystals are a bit harder than conventional quartz crystals and many have extreme clarity. They form within small vugs in dolomite limestone outcroppings. Some are also found in large "pockets" that are several feet in diameter.

They can be clear, cloudy or smoky. Many contain impu-

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[www.charlottegem.com](http://www.charlottegem.com)

rities such as clusters, scepters, enhydro/fluids, phantom and bridge crystals. A phantom crystal is one that contains an image of itself while a skeletal crystal will contain a series of crystal edges visible inside.

The name "Herkimer Diamond" came about because to the untrained eye, the sparkling crystals can be mistaken for diamonds. These crystals are found in Herkimer County which is named after the Revolutionary War General Nicholas Herkimer. The Mohawk Indians who are native to the area are known as "The People of the Crystals".

Mining these "gemstones" is a fairly easy process but not always a rewarding one. For a fee of \$50 you get to borrow a bucket, geology hammer, shovel and safety glasses. From there it's a matter of choosing a site along the wall of the pit and chiseling away at the limestone to find those vugs. The problem is the bottom 6 to 8 feet of the pit has been heavily worked and explored so a bit of climbing is necessary. As with most digs, it's always helpful if you can find someone with a lot of digging experience at that site who is willing to share his or her knowledge.

It was raining when we got there so we spent most of our time in the big rock

shop. They have specimens starting as low as \$5 up to those costing \$700-\$850. We invested in some very interesting display crystals that are still imbedded in their limestone vugs. They have a large jewelry section with some pieces costing \$2000 and up. The cool thing is when you look at a cluster of high quality Herkimers in a necklace or bracelet setting they really do look like diamonds.

There's a wonderful small museum upstairs where you can watch an old video of the early days of the mine and there are some spectacular specimens and crafted pieces on display. I wouldn't recommend an 18 hour drive to go on a Herkimer Diamond dig but should you be spending any time in upstate New York, it's worth a side trip. Meanwhile what with the cost of gasoline and all, we have found Herkimers for sale at a number of gem and mineral shows within an easy drive of Charlotte. Their geology and history will make for an interesting conversation when they are on display in your home.

***Murray Simon, President  
Charlotte Gem & Mineral Club,  
Personal Nurse and Servant  
for Linda, and esteemed leader  
of any who might follow!***

## **Charlotte Gem & Mineral Club Monthly Meeting**

June 21, 2012 Thursday -- 7:00 pm --

**Location:** Tyvola Senior Center  
2225 Tyvola Rd.  
Charlotte, NC 28210  
(704) 522-6222

**Gold mining in and round the Charlotte area.  
What lies beneath the Queen city?**

***Mike Sullivan***

Mike Sullivan is from Kershaw SC. Over the past 15 years he has worked on a number of cultural and historical documentaries about the people and places in the Carolinas including Trappist: Living in the Land of Desire about the monks at the Mepkin Abbey near Charleston, SC and The Greeks of Charlotte, about the history of Greeks in Charlotte/Mecklenburg. At present he is working on a historical documentary about the history of gold mining in the Carolinas and one on cooking and the cuisine of the South. Mike has researched and written about the history of gold and the role it played in the development of Charlotte for the past 15 years.

## **Charlotte Gem & Mineral Club Junior Rockhounds**

*The junior rockhounds are taking the summer off for a well deserved vacation and will start again in the fall.*

*They now meet at the Matthews Community Center when in session. For further information please contact Mary Fisher at [mefisher@att.net](mailto:mefisher@att.net)*



## **The Bad Luck Diamond.**

### **A tale of three stones and twelve victims.**

**By Mike Richardson**

**(from the Facetors Stonechat, UK, issue 85, 2009)**



Jean Baptiste Tavernier

Jean Baptiste Tavernier 1605 –1689 was a French adventurer and merchant who had a penchant for acquiring notable gemstones and selling them to the French aristocracy and royalty.

During one of his visits to India, probably in 1642, he obtained a 112 carat (old carats) blue diamond. Where he got it from is not recorded, it could have been from one of the Golconda mines; the Kollur mine has been suggested but Tavernier travelled extensively through the diamond fields of India. There were extensive mining operations at the base of the Neela-Mulla mountains, the Krishna and Pomar rivers, Raulconda, the Gani and Colour rivers; Tavernier's stone could have originated in any of these areas. Some authorities are sceptical because few large coloured stones are officially recorded as being found there, this is doubtless because of the tax system which was weighted against large stones.

It therefore benefited all parties to break stones into a more normal size before

declaring them. There is a further rumour that Tavernier bought the gem from a shady character of low caste who had stolen it from the eye socket of an idol from somewhere on the Coleroon river, we must assume that the idol represented a one-eyed god. I am not sure if these exist in that part of India or if the idol had a more conventional physiogamy the thief was disturbed before he managed to prize out the other eye. We shall never know but the theory as to the source of the Tavernier Blue is said to be why the stone and others subsequently cut from it are cursed!

The diamond was in the form of a tabular crystal and has been described as "violet blue", "d'un beau violet" and steel blue. Fortunately Tavernier left beautiful sketches of the stone which are copied here, an attempt may have been made to polish one or more of the crystal faces.

Tavernier was the first recorded victim of 'the curse'. He had become very wealthy on the proceeds of his gemstone sales and was enjoying a comfortable retirement until he was ruined by misguided investments made on the advice of his son and had to sell his estates to pay off his debts. At the age of 84 he started travelling again and in Russia he died, some say of a fever, other sources say that he was torn into pieces by wild dogs! The idol claimed its first victim! When Tavernier brought the stone to France he sold it in 1668, to Louis XIV who had it cut into the heart shape of about 68 carats which is now known as the French Blue.

At this point there is a minute possibility that we may have a tale of four stones because there is a report which indicates that during the cutting process a piece was cleaved off and eventually set in a ring for the Empress Maria Feodorovna, wife of Emperor Paul the first of Russia. It was given to the state diamond fund in 1860 by her daughter in law the Empress Alexanra Feodorovna and subsequently mounted in a stick pin. It is said to be in the collection of the Alexander Palace in Tsarskoyeselo near St Petersburg.

It would be easy to prove

or disprove this story if the diamond was made available for a gemmological comparison with the Hope Diamond. However, study of the Tavernier sketches and comparison with the likely outline of the French Blue makes it seem unlikely that a cleavage fragment would have been produced.

Louis XIV allowed his favourite paramour, Madame De Montespan, to wear the diamond until she was wrongly accused of getting mixed up in court intrigues, assassination attempts (Le Voisin Affair), witchcraft and black magic. In the end she got off lightly and was merely forced to spend the rest of her days in a convent from where she continued to do many good works. She died on 27th May 1707. The idol had claimed its second victim!

Louis XIV achieved many notable things during the first part of his reign especially in the fields of culture, architecture and politics. Not long after acquiring the Blue Diamond things started to go down hill, not only did he suffer court intrigues and assassination attempts but he saw almost all of his numerous children die and was only succeeded by his great grandson. He died of gangrene on 15th September 1715 aged 74. Louis XIV was the idol's third victim.

The fourth victim of the idol was Louis XIV's director of finance, he borrowed the stone, was accused of embezzlement and was thrown into jail where he died 15 years later.

The stone, as part of the French Regalia, passed on to Louis XV, great grandson of Louis XIV. He saw most of his issue die, was subject to but survived an assassination attempt, sank into depression and died of smallpox. His body was not accorded the ceremony normally given to French royalty; it was doused in quick lime in a surreptitious, late night ceremony attended by only one lackey. He was victim number five.

The next lucky custodian of the French Blue was Louis XVI. Under his rule the French economy spiraled downwards, unemployment rose to 50%, crops failed and prices soared. He married the Austrian, Marie Antoinette and the French revolution started. Louis XVI was executed along with Marie Antoinette and another wearer of the stone – Princess de Lamballie. The idol had claimed its 6th, 7th and 8th victims!

The French Blue, along with the rest of France's royal regalia, disappeared during the revolution. However in 1830 a large blue diamond weighing 44.5 carats

surfaced in London. It is now accepted that this diamond was cut from the French Blue. It was bought by an English banker, Henry Thomas Hope. From now on the stone was to be known as the Hope Diamond. It was eventually inherited by Lord Francis Pelham Clinton Hope. His wife, an American actress ran away with another man, she died in Boston Massachusetts in 1913, penniless – victim number nine!

Lord Hope, victim number ten, went bankrupt and the diamond vanished only to be discovered by the estate trustees after it had been

sold as a piece of costume jewellery.

The Hope then passed into the ownership of Abdul Hamid II, Sultan of Turkey, Caliph of Israel, Prince of the Faithful, Master of the World, a.k.a. Abdul the damned. He squeezed \$450,000 out of his subjects to buy the diamond then he gave it to Subaya, one of his four wives and 233 concubines. She started a palace intrigue against Abdul who then had her executed. Victim number eleven!

Abdul was dethroned and he smuggled the stone to

Paris to be sold. The proceeds of the sale were however appropriated by Abdul's successor in government and Abdul received nothing. Victim number twelve!

In 1911, Mrs Evelyn Walsh McLean bought the diamond and frequently wore it at parties, she seems to have escaped the curse or perhaps the idol's revenge was sated. After her death in 1949 the McLean collection, including the Hope, was bought by Harry Winston who later gave it to the American nation. It is now on display in the Smithsonian Institute, Washington DC.

**The full size replicas shown here are cut from purple/tanzanite blue cubic zirconia.**

*(Please Note, these Photographs are NOT to scale relative to one another:)*

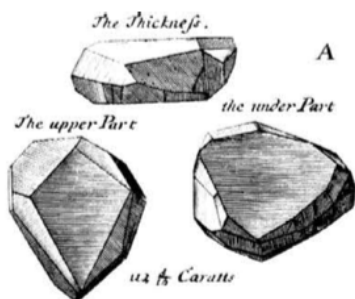


French Blue



The Hope Diamond

Tavernier's diagram of the Hope's 112-carat rough



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## Fluorescent Minerals

By Bill Fowler, via SCRIBE, via the Agatizer, 10/05

(Santa Clara Valley Gem & Mineral Society) April, 2011 - BRECCIA bulliten)

On a table in a dark room, lay out a large collection of crystalline minerals of different types from different locations. Then shine a short-wave ultraviolet (UV) lamp on each of the specimens. Although UV radiation is not visible to the human eye, you'll none the less find that about 10% of the mineral specimens in a typical collection will emit a clearly visible glow in response to the UV lamp.

A few of them may even be quite spectacular in this regard. This phenomenon is called fluorescence. Of those that do fluoresce, about 10% will continue to glow for a few seconds after the UV lamp is turned off. This property is usually termed phosphorescence or afterglow.

Fluorescence and phosphorescence in minerals can be of any color. This color is usually not related to the type of mineral but instead dependent on the nature of the fluorescence activator that is present in the mineral. Thus, the fluorescent color can be identical for two or more different mineral types that happen to contain the same activator. Or the color can be different for two or more different specimens of the same mineral type but from different geographical localities.

Common fluorescence activators in minerals include point defects in the crystal structure, as well as atoms, ions (i.e., charged particles), and molecules that are present in minerals as impurities, e.g., hydrocarbons, manganese, titanium, europium, lead, uranium, and sulfur. The causes of mineral fluorescence are com-



photograph by Hannes Grobe

plex, and a complete understanding of them requires an in depth knowledge of atomic and molecular processes. Nevertheless, a simplified explanation can be given as follows.

When a fluorescent activator is struck by photons of UV light, the activator absorbs the UV energy. This extra energy promotes the activator from the ground energy state (or ground level) to an excited energy state or level. This is an unstable condition for the activator, and thus it tries to find a way to throw off the excess energy and thereby return to the ground state.

For most atoms, ions, and molecules, there are a number of ways to accomplish this goal that do not involve fluorescence. But for fluorescence activators, the only way to get rid of the excess energy is to emit photons of visible light. It is these emitted photons of visible light that our eyes detect as fluorescence or phosphorescence.

Although the explanation of fluorescence is complex, there is nothing at all complex about the observation of fluorescence, it is purely and simply beautiful! The collector of fluorescent minerals loves to display his or her specimens in display boxes equipped with UV lamps. But the greatest thrill for the collector lies in discovering attractive new speci-

mens in the field as they respond to a handheld UV lamp for the first time.

This is best done at night, but it's also possible to do it during the day if a portable dark-box or dark shroud is carried along. There are now at least three types of UV lamps on the market, differing mainly in the wavelength of UV radiation emitted long wave, mid wave, and short wave. It is generally true that the shorter the wavelength, the more expensive the lamp, and the more mineral specimens there are that can be excited to fluorescence by that wavelength.

Many minerals will fluoresce only under one of the three wavelengths, yet there are a few minerals that will fluoresce under each of the three wavelengths.

So where does one find fluorescent minerals? It turns out that the potential for finding fluorescent minerals is significant at any location where one can find crystalline rocks and minerals. For example, I have found them in mines and quarries, on rock dams, in road cuts, in stream gravel, along railroad tracks, on prehistoric Indian sites, in timber clear cuts, on the banks of major reservoirs, and in landscaped areas where ornamental rock was used.

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But one of the best places to find them is in the mineral collection of a rockhound who has never shined a UV lamp on his or her specimens. If this includes you, then you need to borrow a lamp from someone and check it out. Discover a few fluorescent minerals in your collection, and it could shed a whole new light on your favorite hobby.

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## **Charlotte Gem & Mineral Club Summer/Fall Events**

Your ever diligent, hard working, duly elected board (i.e. those who meet an extra time each month on the first Monday of every month) have begun the early stage planning for our two summer "participations".

Our club will once again be attending and participating in the Matthews Alive event on the Labor Day weekend in September, 2012. Here we will once again set up to cut the customary geodes and provide people with the opportunity to become acquainted with our club. We often get an influx of new members after this show.

The show will be from Friday, August 31st through Monday, September 3rd. So please mark your calendars and volunteer a little time during that weekend to make it a successful event.

We are also planning the return to the Mint Hill Mad-

ness which takes place September 28th and 29th. Here we will set up for small geode cutting and set up the (almost) legendary club sluice. Again we will be soliciting your help for the two events. (Although last year this was more of a water-event, our fearless president has guaranteed blue skies this year.)

We use the funds from these two events to subsidise our yearly Geology scholarships to UNCC, and our two club related scholarships to an SFMS week at either William Holland or Wild Acres.

To qualify for the two club scholarships you need to earn points, which is as easy as attending meetings, volunteering for food, providing yours truly with fodder for this newsletter, or amazingly enough, spending some volunteer time at either of the above two events! If you think you should get them for other service, let us know, and we'll likely create a new category.

You can download a club point sheet from the club WEB site, or request one from a club board member at one of our meetings. (Who are these powerful people ... see page two of this newsletter!) The sheets need to be turned in before our December meeting as that is when the drawing is held.

## **Show Information**

**June 23, 2012:**  
Greensboro, NC. **Greensboro Gem and Mineral Club.** Piedmont Open Air Gem & Mineral Sale, Hagan Stone Part, Shelter # 4, Greensboro. Hours: 10-6. Free admission; free parking. For directions please visit [www.haganstonepark.com](http://www.haganstonepark.com)

### **July 27-28, 2012: Faceters' Frolic (2012)**

This will be the 5th year for the Faceters' Frolic during the Annual Summer Shows in **Franklin, NC.**

This year it will be a two-day event on Friday July 27th & Saturday 28th of 2012. It will be held at the Fun Factory, which is the same location as FFF3. Robert Strickland will offer two GemCad classes on Friday and a larger number of quality dealers will start offering items for sale at 1PM on Friday. Dealers will be available all day on Saturday.

We have scheduled some great programs, demos and prizes, so start making your plans now.

For a full run-down on all the information see their WEB site:  
<http://www.facetersfrolic.org/>