



## KULSEN & HENNIG Nature's Brilliant Colours

Newsletter Nr. 6

02/2011

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## KULSEN & HENNIG News

### **Come and See Us at the International inhorgenta europe 2011 Trade Fair**

Dear Clients, Dear Readers:

We would be pleased to have you visit our stand at the upcoming international inhorgenta europe 2011 trade fair held from 25 to 28 February! You will have the opportunity to discover our wide range of products and receive a personal copy of our colour charts for both yellow and Champagne Diamonds.



Stand Location:

Hall C1 / Stand 408 / Aisle C

We look forward to your visit!

The KULSEN & HENNIG Team

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### **Our New Colour Grading Chart for Yellow Diamonds**

Yellow is one of the most common diamond colours found in the jewellery industry. Compared to other Natural Fancy Coloured Diamonds, yellow diamonds with medium colour saturation are available at quite affordable prices.

Our colour grading chart for yellow diamonds presents the various shades and will be a helpful tool for professional interaction. The chart shows the internationally recognised GIA colour scale for yellow diamonds, ranging from Faint



Yellow to Fancy Vivid Yellow and clearly indicates the transition from white diamonds to coloured diamonds. Key information concerning the origins of colour and sources of yellow diamonds is also provided.

A free copy of the chart will be included with your next order.

To download the colour grading chart, click

[here.](#)

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### **From our Collection: Princess, Fancy Deep Brownish Orangy Pink**

We recommend this stone for the unique charm of its delicate antique rose pink colour. The fiery brown and orange tints warm the main pink colour, making the stone particularly well suited to red or pink gold.

This stone's excellent VVS1 clarity, rather uncommon in pink diamonds, and its 0.34 ct weight would make it the perfect choice for a personalised engagement ring.

For more information about this stone, please contact us at:

Email: [info@kulsen-hennig.com](mailto:info@kulsen-hennig.com)

Telephone: +49 (0)30 400 55 93 0



[View GIA Certificate](#)

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### **Portrait of a Diamond ... An Interview with Elmar Schwarze**

[www.studio34.de](http://www.studio34.de)

**Juliane Hennig:** This new year, 2011, marks our 10 years of working together and we will celebrate that anniversary at the Inhorgenta Trade Fair where you will be visiting us Sunday. For all these years, you have done a marvellous job capturing the portraits of our diamonds, as well as that of our team for that matter, and you have constantly improved your technique. We think it is high time to introduce you to our readers! Photographing precious stones and jewellery is reputed to be among the most demanding photographic disciplines. What challenges are involved?

**Elmar Schwarze:** Capturing the portrait of a diamond's beauty and uniqueness requires more than just good technique. Experience and perseverance are also necessary, especially when it comes to coloured diamonds.



**Juliane Hennig:** And how do you proceed?

[Read more ...](#)

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# All about Natural Coloured Diamonds

## Paying Tribute to the Tiffany Diamond

by Gabriele Gollwitzer

Manhattan, January 2011 – Like so many other tourists, I made my way to 5th Avenue to visit the Tiffany & Co. flagship store to see the site of the movie classic "Breakfast at Tiffany's". I was also interested in seeing another classic, however: the Tiffany diamond that visitors can admire here all year long. Contrary to the movie's opening scene, the street was packed on this sunny winter day. As I entered the store through the open front doors, neither the reverential calm of a museum nor the respectable silence of a luxury jewellery store awaited me. The sales area was full of visitors of all ages ... and only 5 meters from the front doors, in a wall showcase, I caught sight of the famous yellow cushion cut diamond, weighing 128 carats, in its "bird on a rock" setting.

Read the history of the Tiffany Diamond that starts in 1877 in South Africa.

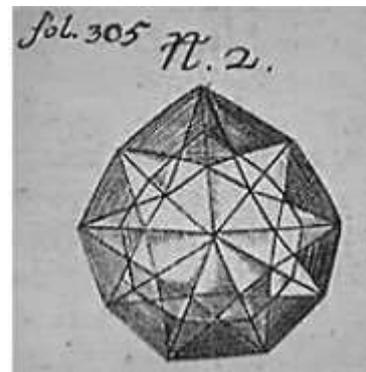


[Read more ...](#)

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## Some Famous Yellow Diamonds and the Stories behind Them

Many myths and legends surround the most famous diamonds and their owners. As yellow diamonds are the main focus of this newsletter, we have selected some of the most famous ones. For our part, even though we limited ourselves to proven facts, we found the stories behind these diamonds to be absolutely fascinating!



[Read more ...](#)

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## Gemmology Corner

### Diamond Colours: Yellow

The colour yellow raises certain essential questions concerning Fancy Coloured Diamonds. Actually, how do we define a Fancy Coloured Diamond? How is its value determined? A fine, but essential, line divides white diamonds that have an undesirable yellow *tint* from those diamonds that possess the much sought after yellow *colour*.



[Read more...](#)

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You will receive our next newsletter in May 2011. Earlier editions of our newsletter may be found in our [newsletter archive](#).

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## KULSEN & HENNIG News

**Elmar Schwarze:** There are as many practices as there are stones! Over the past ten years working in precious stone and jewellery photography, I have continuously learned new things. Each diamond demands my full attention. They act like stars, totally conscious of their uniqueness! It is sometimes dispiriting. Everything must adapt to the constraints dictated by the precious stone: the camera, the lens, the right lighting, and even the setting. Once I even repainted a green wall white because one of the stones was showing up with a green tint that shouldn't have been there, but it was definitely worth it!

**Juliane Hennig:** When do you know you are satisfied with the photograph of a diamond?

**Elmar Schwarze:** it reveals the stone's real character. When the light reflected from the facets breathes life into the stone, even in the picture.

**Juliane Hennig:** What technical change in these last few years has changed or even simplified your work with diamonds?

**Elmar Schwarze:** In macro photography, the camera must be as close as possible to the stone, with the lens almost touching it. Since last year, I have been using software that helps eliminate the problem of limited depth of field in macro photography. The software combines multiple images taken at different focus distances to give a resulting image with a greater depth of field than any of the individual source images. But the perfection we are aiming at still requires a human touch.



**Juliane Hennig:** When a jeweller recommended you to us ten years ago, you had just opened your photographic studio in Berlin. Why did you choose Berlin?

**Elmar Schwarze:** After the wall fell, Berlin was at that time an incredibly vibrant city that offered amazing opportunities. In a more conservative city like Hamburg or Munich, I would have never had the same professional opportunities. In the late 90s, I became interested in digital photography which allowed me to obtain a couple of high paying contracts with Scholz & Friends, an ad agency from Dresden that had arrived in Berlin in the early 90s.

**Juliane Hennig:** Initially, you studied painting at the Arts Academy in Munich. How did you become interested in photography?





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**Elmar Schwarze:** After my studies, I tried my luck as an independent artist in Cologne. I earned money for canvases and paints by selling travel pictures I had taken and by working in cultural journalism. I ended up being more successful with my photographs than with my paintings!

**Juliane Hennig:** Today you are a very versatile commercial photographer. What are some of the other types of photography that we might find in your portfolio in addition to precious stones and jewellery?

**Elmar Schwarze:** Portraits & objects, fashion & food, editorials & travel ... I just shoot what I like. That's the way I work best. I don't want to limit myself to just one area; my natural curiosity and need for freedom are simply stronger than anything else!

**Juliane Hennig:** Thank you Elmar for doing this interview and we look forward to working with you again on future projects!





## KULSEN & HENNIG

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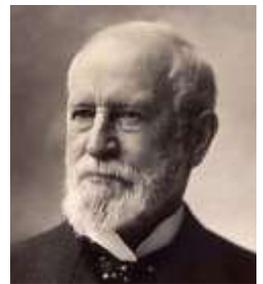
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# All about Natural Coloured Diamonds

## The Tiffany Diamond

In 1837, Charles Lewis Tiffany founded a fashion accessories store in New York City. In 1853, the business became the jewellery store, Tiffany & Co. as it still exists today. Long before the Yellow Tiffany Diamond became its emblem, Tiffany & Co. had already distinguished itself by acquiring some very unique diamonds: it was one of the largest buyers of the French Crown Jewels when they were sold in the aftermath of the 1848/49 revolutions. When diamonds were discovered in South Africa, Tiffany's was also able to acquire some remarkable stones, including a rough yellow diamond weighing 287.42 carats. This diamond would become Tiffany's trademark.



In 1878, after being studied for a year, the rough stone was cut to its current proportions under the supervision of the distinguished gemmologist George Frederick Kunz. It yielded a cushion-cut brilliant with 90 facets: 48 on the pavilion, 40 on the crown, plus one each on the table and culet. In its current size, the diamond weighs 128.51 ct.



Millions of visitors have been able to admire the Tiffany Diamond on 5<sup>th</sup> Avenue where it has been on display for 70 years, but that was not always the case. In 1879, when the stone arrived in the United States, Charles Tiffany hesitated to put it on display to the general public. At the time, more and more yellowish diamonds were being produced in South Africa and he was unsure as to the real value of his diamond. In the years that followed, however, it would become clear that stones of such a deep yellow colour were indeed extremely rare. From that time on, the stone has been shown at various events and exhibits.



The last time this precious stone was on exhibit was in 2007 at the Smithsonian Institution's National Museum of Natural History in Washington, DC. In 1957, the diamond was worn in public for the first time by the chairwoman of the Tiffany ball in Newport, Rhode Island. The Tiffany designer, Jean Schlumberger, had it set for the occasion in a necklace of white diamonds. It is the same necklace that Audrey Hepburn wore for the promotional photographs for the movie "Breakfast at Tiffany's" (but not the one worn in the movie!). In 1956, Jean Schlumberger designed three settings for the Tiffany Diamond. The current "Bird on a Rock" setting was mounted in 1995. The Tiffany Diamond was valued at USD 12 000 000 in 1983. The



current value of the diamond is unknown, although it is officially considered impossible to sell. When an eager new salesman at Tiffany's asked what he would get if he sold the famous gem, he was promptly told by the head of the firm, "fired"!



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### Some Famous Yellow Diamonds and the Stories behind Them

The **Eureka** (Greek for "I've found it!") is the first recorded diamond to be found in Africa. The pale yellow diamond was found in 1866 by children playing along the Orange River in Hopetown, South Africa. Later, in 1867, the rough 21 carat diamond was officially recorded as the first authenticated diamond discovered in the history of Africa. The diamond was subsequently cut to its current 10.70 ct size and in 1967, a century after its discovery, De Beers bought the diamond and returned it to the African people. The South African government put The Eureka on display at the Kimberley Mine Museum where today it continues to bear witness to the beginnings of the country's diamond industry.



The **Tiffany Yellow Diamond** weighed 287.42 ct when it was discovered in 1878 in the Kimberley Mines in South Africa, becoming one of the largest rough diamonds ever found. In its current cushion shape, it can still boast of 128.54 ct. We suggest you read this edition's article, "Paying Tribute to the Tiffany Diamond" to learn more about this diamond.



The **Incomparable** is the largest faceted yellow diamond in the world. It is flawless and weighs 407.48 ct. It was found in the Democratic Republic of the Congo, supposedly by a little girl who was playing on a garbage heap next to a diamond mine. Its colour has been determined by the GIA as Fancy Brown Yellow.



The **Florentine Diamond** is also known as the Grand Duke of Tuscany, the Habsburg, or even the Austrian diamond, all names which refer to the different noble families the stone has belonged to during its long history. The diamond had been in the influential Medici family in Florence for generations. Then, at the end of the Medici dynasty, it was acquired by Maria Theresa, Archduchess of Austria. After the fall of the Austrian Empire in 1918 at the end of the 1<sup>st</sup> World War and the Imperial Family's exile to Switzerland, all trace of the diamond disappeared. Several reproductions of the Florentine diamond still exist, however, notably the one kept in the geophysical observatory of the Benedictine Abbey located in Kremsmünster, Upper Austria. The Florentine Diamond was first described scientifically in the book, *Les six voyages de Jean-Baptiste Tavernier* (The Six Voyages of Jean-Baptiste Tavernier) when it was published in 1676. The diamond was fashioned in a double rose cut and weighed 137.27 ct. According to the book's description, the diamond was light yellow in colour with very slight green overtones.





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The ***Delaire Sunrise***, with its 118.08 ct, is the largest Fancy Vivid Yellow square emerald cut diamond in the world. Its owner, London jeweller Laurence Graff, presented the diamond last year in September during an exhibition in Monte Carlo. The Delaire Sunrise is named after the magnificent sunrises that can be seen over the Delaire mountain ranges in South Africa. Nino Bianco, one of the world's best known diamond cutters, cut the stone from the original octahedral crystal weighing 221.81 ct. The depth of colour in the rough diamond allowed Mr. Bianco to choose a step cut and, as a result, retain maximum weight. The success of this decision can be seen in the Fancy Vivid grading attributed to the stone by the GIA.



### Some Famous Rough Yellow Diamonds

The ***Kimberley Octahedron***, weighing 616 ct, is considered to be the biggest diamond in the world. It was discovered in 1972 in a diamond mine in South Africa, where this diamond can still be admired. It is displayed in Kimberley at the "Big Hole", known as the largest man-made hole in the world.



The ***Kahn Canary*** is a flawless, rough diamond weighing 4.23 ct. Discovered in 1977 in the state of Arkansas, nicknamed "The Natural State" (a play on words referring to both the state and its undisturbed nature), this diamond has become the state's unofficial symbol for its natural uncut triangular form, enhanced by its current setting. Former First-Lady Hillary Clinton, currently the Secretary of State in US President Barack Obama's Administration, was allowed to wear the diamond on several ceremonial occasions, including the inauguration of Bill Clinton as the President of the United States of America.





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## Gemmology Corner

### Diamond Colours: Yellow

The internationally recognized GIA colour grading scale begins with the letter D (pure white) and ends at letter Z (tinted colour). The transition from white diamonds to Fancy Coloured Diamonds occurs beyond the Z grade. The colour range for Fancy Coloured Diamonds includes four colour grades: Fancy Light Yellow, Fancy Yellow, Fancy Intense Yellow, and Fancy Vivid Yellow. The colour known commercially as canary or canary yellow actually refers to the HRD grade of a highly saturated Fancy Intense Yellow and the GIA grade of Fancy Vivid Yellow. A diamond's value decreases as the white colour becomes more yellow, but rises once again from Fancy Light Yellow through to Fancy Vivid Yellow. Highly saturated pure yellow diamonds are extremely rare and, as a result, more valuable than the most beautiful white diamonds of comparable size.

#### White Diamonds



#### Fancy Coloured Diamonds



## Cause of Colour in Yellow Diamonds

### A Look at How a Diamond Is Structured

As everyone knows, diamonds are made up of carbon atom aggregates within a crystal structure. What is less well known is that there is only one type of rare diamond actually made up of pure carbon. Those diamonds are always absolutely colourless. All other diamonds contain chemical elements, most often nitrogen, in addition to carbon. Since the nitrogen atoms do not have the same number of electrons as the carbon atoms, they bond with the carbon atoms in such a way that one nitrogen electron remains free. The free electrons are able to partially absorb light, most often the blue and violet wavelengths. The diamond's yellow colour results from the light that has not been absorbed.



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Types of Diamonds			
Diamonds are made up of carbon atoms whose electrons are shared in pairs (covalent bonds). These particularly strong bonds form the characteristic crystal structure of the diamond and are responsible for its hardness. In addition to carbon, other elements can also be present in the crystal structure and can affect the diamond's colour.			
Type 1		Type 2	
Contain measurable quantities of nitrogen		Contain no nitrogen or in quantities so low they are difficult to measure	
Typ 1a	Typ 1b	Typ 2a	Typ 2b
Contain aggregate nitrogen atoms in pairs or small groups	Contain single nitrogen atoms	Are made up of pure carbon	Contain boron atoms

## Light Absorption : Different Shades of Yellow – Different Quantities of Nitrogen

Nitrogen in a diamond does not always cause colour. When two or four nitrogen atoms (aggregate A and aggregate B) surround a vacancy in the carbon lattice, there is no absorption and hence no colour. In all other cases, the presence of nitrogen atoms, whether single or in a group, will cause a more or less intense yellow colour. Nitrogen is most commonly found in diamonds in the form of a three atom group (called an N3 aggregate) surrounding a vacancy in the structure. These 3 atom groups are responsible for colours ranging from the almost imperceptible yellowish tint in white diamonds to pale yellow. More intense yellows are also possible in diamonds with higher numbers of N3 aggregates. Single nitrogen atoms (type 1b) are rarer than nitrogen aggregates and result in stronger, deeper yellow colours that can even attain orange.

## Sources

Yellow diamonds, with weak to strong colour saturation, can be found in most diamond producing countries. Until now, however, the largest and most intensely yellow diamonds have been discovered in South Africa.

## The Importance of Shape for Yellow Diamonds

The value of a diamond increases with the intensity of its colour. This intensity can be clearly improved by choosing the most appropriate shape; as a result, the stone's value will increase accordingly. The Radiant Cut and the Cushion Cut both correspond beautifully to large yellow diamonds. Experience has shown that a Radiant Cut yellow diamond might be certified as "Fancy Yellow", whereas the same stone would most probably be certified as only "Fancy Light Yellow" were it to have a round brilliant shape. It is for this same reason that emerald and baguette cuts are rather uncommon. The *navette* and oval cuts, however, make good choices (see Newsletter #3: "Diamond Cutting Styles for Natural Coloured Diamonds").