



# KULSEN & HENNIG

Nature's Brilliant Colours

Newsletter No. 15

06/2013

## In this Edition:

### **KULSEN & HENNIG News**

Colours, Records and an Ideal

2013 Swiss Goldsmith Design Championship

From Our Collection: A Fancy Deep Yellow Orange 0.44 ct Radiant Cut Diamond

### **All about Natural Coloured Diamonds**

The Princie Diamond - Record Sale at Christie's

Fancy Vivid Blue Diamonds

The Fancy Royals

### **Gemmology Corner**

The Brilliant Cut - Part 3: The "Ideal" Brilliant Cut

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## KULSEN & HENNIG News

### **Colours, Records and an Ideal**

Dear Clients, Readers and Friends,

This year has brought us a few changes. After four years spent with DOMINIK KULSEN AG, our colleague Aline Trachsel has decided to pursue new challenges elsewhere. We wish her a very successful future. At the same time, we are pleased to welcome Rahel Ngoie-Schlittler back to our Swiss team.

The spring trade fair INHORGENTA in Munich was a great success. Throughout the many stimulating conversations with our customers, we couldn't help but notice once more their enthusiasm for Natural Fancy Coloured Diamonds. During our visit to BASELWORLD, we were again captivated by the variety, size and beauty of the coloured diamonds on display.

Inspired by all these impressions, we dedicate this newsletter to the exceptional Natural Fancy Coloured Diamonds which have achieved top prices at auction, sensational finds and the "ideal" brilliant cut.

Happy reading!

Juliane Hennig  
Ihr KULSEN & HENNIG Team



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## 2013 Swiss Goldsmith Design Championship

The awards ceremony for the Swiss Goldsmith Design Championship took place on 8 April of this year at the Culture and Connection Centre Lucerne. The works of 77 budding goldsmiths in their fourth year of training were in competition in the categories of design and techniques.

For the fifth time, the two competitions were held at the same time. The promoters are Daniel Gut (St. Gallen) and Christoph Brack (Winterthur). DOMINIK KULSEN AG lent its support to the championship in the design category by supplying rough natural coloured diamond cubes.

Respecting the theme of "Joyful-Playful", innovative and playful pieces of jewellery were created.



[See for yourself...](#)

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## From our Collection: A Fancy Deep Yellow Orange 0.44 ct Radiant Cut Diamond

In keeping with this year's orange theme, we are presenting here a delicate, yet flamboyant radiant cut diamond that will be sure to move you. This stone and its sunny disposition would be perfect as a solitary stone for a ring. It has a SI clarity grading and its dimensions are 4,50 x 4,29 x 2,57 mm.

If you are interested in this stone, please feel free to contact us:

E-mail: [info@kulsen-hennig.com](mailto:info@kulsen-hennig.com)  
Telephone: +49 (0)30 400 55 93 0



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## All about Natural Coloured Diamonds

### The *Princie Diamond* - Record Sale at Christie's

On 16 April 2013, Christie's New York sold a Fancy Intense Pink cushion cut diamond weighing 34.65 ct for USD 39 323 750, that is to say USD 1 135 00 per carat. It was sold in only a few minutes to an anonymous buyer over the phone.

Thus, the *Princie Diamond* has become the most expensive diamond ever sold by Christie's and the second most expensive diamond ever sold at auction. First place is held by the *Graff Pink*, a Fancy Intense Pink diamond, weighing 24.78 ct. Laurence Graff purchased the stone in 2010 at Sotheby's for a record price of USD 46 160 000.



[Read more...](#)

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## Fancy Vivid Blue Diamonds

Blue is one of the rarest and most valuable natural diamond colours. This is why the discovery of a Fancy Vivid Blue diamond weighing 25.50 ct has created a real stir. The rough stone was found in April of this year in the Cullinan diamond mine run by Petra Diamonds in South Africa. The diamond's value has been estimated by experts at about USD 10 000 000.

The Cullinan diamond mine is famous for producing blue diamonds of the highest quality. Not surprisingly, a blue diamond found there in 2008 was auctioned off by Sotheby's in May 2009 for USD 9 490 000. The 26.58 ct rough stone was reduced to 7.03 ct and given a cushion cut. The diamond's colour has been indicated as Fancy Vivid Blue and its clarity as flawless. It is known as the *Star of Josephine*.



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## The Fancy Royals

On 30 April 2013, Queen Beatrix of the Netherlands abdicated her throne to her son Willem-Alexandre. A million visitors came to celebrate the "Orange" event and the new king was greeted with thunderous applause.

On the occasion of the new king's coronation and in honour of the Dutch royal house of Orange-Nassau, the traditional Royal Asscher jewellery company has launched a special jewellery collection called the Fancy Royals, set with orange diamonds and sapphires.

This collection is made up of three models of the same pavé diamond rings available in 18 ct white or yellow gold and in silver. The gold rings are each set with 1.50 ct of orange diamonds and 0.70 ct of white diamonds. The silver ring is set with 1.99 ct of orange sapphires and 0.70 ct of white diamonds. For the occasion, the jewellery has been adorned with a crown motif.



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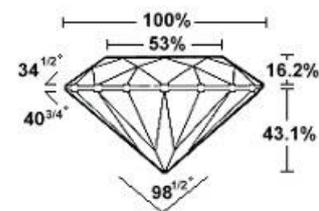
## Gemmology Corner

### The Brilliant Cut - Part 3: The "Ideal" Brilliant Cut

In Part 2 of our series, we presented the modern brilliant cut and showed how the laws of optics were used by stone cutters to achieve maximum brilliance and fire.

Whereas up until the beginning of the 20th century the various brilliant cuts used in the industry developed in practice, theoretical calculations based on the optical and physical properties of diamonds were subsequently used to determine the symmetry and proportions of the "ideal brilliant".

[Read more...](#)



You will receive our next newsletter in September 2013.

Earlier editions of our newsletter may be found in our [newsletter-archive](#).

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### 2013 Swiss Goldsmith Design Championship

In the design category, the participants were given the task of designing and producing a portable piece of jewellery. They were allowed to use precious and other metals, wood, and plastic.

The DOMINIK KULSEN AG provided 106 rough natural coloured diamond cubes for a total weight of 74.88 ct. Each participant received 3 diamond cubes free of charge to incorporate in their jewellery. All work was required to be done by hand.

The theme of "Joyful-Playful" allowed the budding goldsmiths plenty of room for creativity.

Congratulations to the winners!

#### **A Design Award Worth CHF 4 000 (EUR 3 200)**

The winner of the design prize was Géraldine Rohrer from the *Ecole d'Arts Appliqués de La Chaux-de-Fonds*. She created a playful and reversible piece, playing with both texture and feel.



Géraldine Rohrer





# KULSEN & HENNIG

Nature's Brilliant Colours

Newsletter No. 15

06/2013

## A Concept Award Worth CHF 2 000 (EURO 1 600)

The concept award was won by Mirjam Wind from the *Gräppi* Goldsmith Workshop in St Gallen. With her pendant, she asks the question of when the most precious figure should be sent into the field.



Mirjam Wind



## The Jury Prize Worth CHF 1 000 (EUR 800)

The winner of the design prize was Géraldine Rohrer from the *Ecole d'Arts Appliqués de La Chaux-de-Fonds*. She created a playful and reversible piece, playing with both texture and feel.



Emilie Heger



# KULSEN & HENNIG

Nature's Brilliant Colours

Newsletter No. 15

06/2013

## All about Natural Coloured Diamonds

### The *Princie Diamond*

#### Characteristics and Particularities

The *Princie Diamond* is one of the most fabulous natural coloured diamonds ever discovered in the Golconda diamond mines. In November 2009, the Gemmological Institute of America (GIA) studied this 34.65 ct, cushion cut diamond and awarded the stone the rare and exceptional Fancy Intense Pink colour grading and a VS2 clarity grading.



Additionally, the GIA determined that the stone belonged to the IIa type of diamonds. That type of diamond presents the highest degree of chemical purity and possesses extraordinary brilliance.

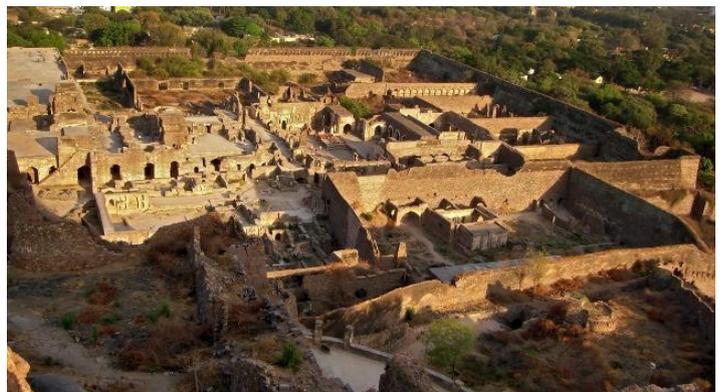
Another particularity of these diamonds is that they reveal a light, orangy-red fluorescence when exposed to ultraviolet light. This rare phenomenon is characteristic of diamonds coming from the Golconda mines.

#### History and Origin

For over three hundred years, this valuable pink diamond belonged to the Nizam of Hyderabad dynasty that ruled over one of the richest principalities of the Mughal Empire. The Nizam of Hyderabad sovereigns also ruled over the legendary Golconda mines, today located in the state of Andhra Pradesh in southern India.

There, the diamonds were mined, cut and also traded. In the 19th century, the Nizam of Hyderabad were still the only producers of diamonds in the world.

The reserves of these mines have long since been depleted and only the vestiges still remain to bear witness to their former grandeur.



The vestiges of Golconda today



## KULSEN & HENNIG

Nature's Brilliant Colours

Newsletter No. 15

06/2013

The Golconda mines are known for their particularly beautiful natural coloured diamonds which possess unusual colour and remarkable transparency. The three largest pink diamonds, the *Darya-i Nur*, the *Nur-ul-Ain* and the *Princie Diamond* all come from these mines.



*Darya-i-Nur* (186.00 ct)  
Light Pink

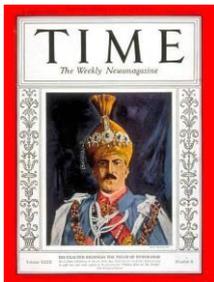


*Nur-ul-Ain* (60.00 ct)  
Light Pink



*Princie Diamond* (34.65 ct)  
Fancy Intense Pink

According to Indian tradition, the Nizam had pre-emption rights for the most beautiful diamonds from the Golconda mine. It was believed at the time that a stone's interior energy was transmitted to its owner.



Mir Osman Ali Khan  
Time Magazine 1937

This is how the *Princie Diamond* passed from one generation to another until it reached the last of the Nizam of Hyderabad, Mir Oman Ali Khan, who was named the "richest man in the world" in 1937 by Time Magazine. His fortune was mainly based on centuries of diamond trading.

Mir Osman Ali Khan put the diamond up for sale in 1960 and it appeared as the *Property of a Gentleman* in a Sotheby's auction. Van Cleef & Arpels purchased the stone for GBP 46 000, the equivalent of USD 1 300 000 today... a rather modest price compared to the USD 39 323 750 reached in the Christie's auction in April 2013!

The *Princie Diamond* was named in honor of the Prince of Baroda, 14 at the time and present with his mother Maharani Sita Devi at the party given by Pierre Arpels in Paris to celebrate his new acquisition.



## Gemmology Corner

### The Brilliant Cut – Part 3: The “Ideal” Brilliant Cut

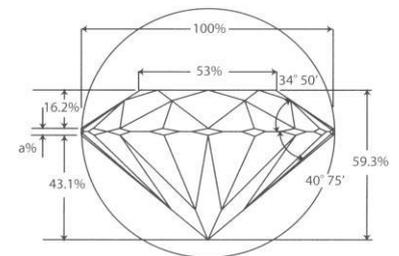
#### 1919 – *Tolkowsky-Brilliant* (Standard American Ideal Cut)

Crown Height	16.20 %	Pavilion Depth	43.10 %
Crown Angle	34.50°	Pavilion Angle	40.75°
Table Diameter	53.00 %	Crown : Pavilion	1:2.66

The diamond cutter, gemmologist and mathematician Marcel Tolkowsky (1899-1991) is known as the father of the modern brilliant cut. Published in London in 1919, his thesis, “*Diamond Design, A Study of the Reflection and Refraction of Light in a Diamond*”, tried to establish an optimal diamond cut by using mathematical calculations. He included all the relevant information for obtaining the best possible dispersion (the diamond’s fire) and the highest degree of brilliance.

Tolkowsky calculated the ideal proportions for optimal brilliance, based on the diameter of a diamond being 100%

In the United States, the *Tolkowsky Brilliant Cut* (Standard American Ideal Cut) forms the basis for cut graduation. Its brilliance meets the highest requirements.

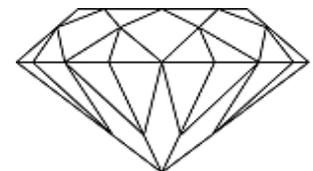


*Tolkowsky-Brilliant*, © M. Dundek

#### 1926 – *Ideal-Brilliant*

Crown Height	19.20 %	Pavilion Depth	40.00 %
Crown Angle	41.10°	Pavilion Angle	38.70°
Table Diameter	56.10 %	Crown : Pavilion	1:2.07

In 1926, Johnson and Rösch calculated the so-called *Ideal Brilliant*. To do this, they took into consideration the light entering the stone vertically, but failed to consider light entering slantwise. This type of cut produces only slightly satisfying brilliance.



*Ideal-Brilliant*

#### 1939 – *Practical Fine Cut* (European Cut, Eppler Fine Cut)

Crown Height	14.40 %	Pavilion Depth	43.20 %
Crown Angle	33.10°	Pavilion Angle	40.50°
Table Diameter	56.00 %	Crown : Pavilion	1:3.00

Born in 1902, Dr Wilhelm Friedrich Eppler was the son of the German mineralogist Dr Alfred Eppler. Like his father, he studied mineralogy at the Universities of Bonn and Hamburg. In Germany, the Practical Fine Cut developed by Eppler in 1939 is considered as the standard cut to assess symmetry and proportions.



# KULSEN & HENNIG

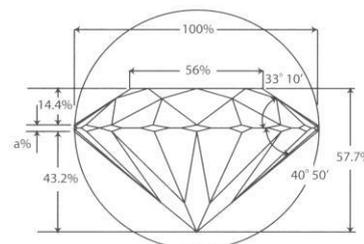
## Nature's Brilliant Colours

Newsletter No. 15

06/2013

Eppler examined well-cut diamonds with excellent brilliance and fire. The resulting dimensions, originating from practice (hence the term "practical fine cut"), also took into account the light entering the stone slantwise.

These dimensions differ significantly from those of the "ideal" brilliant but only slightly from those of Tolkowsky's brilliant.

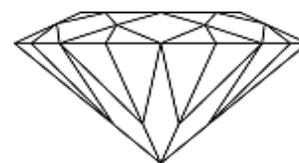


Practical Fine Cut, © M. Dundek

### 1951 – Parker-Brilliant

Crown Height	10.50 %	Pavilion Depth	43.40 %
Crown Angle	25.50°	Pavilion Angle	40.90°
Table Diameter	55.90 %	Crown : Pavilion	1:4.13

Although the cut calculated by Parker exhibits good light yield, it is of little importance in terms of brilliance because the crown is too shallow.

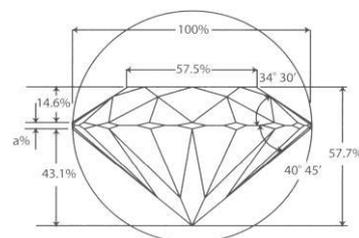


Parker-Brilliant

### 1969 – Scandinavian Standard Brilliant

Crown Height	14.60 %	Pavilion Depth	43.10 %
Crown Angle	34.30°	Pavilion Angle	40.45°
Table Diameter	57.50 %	Crown : Pavilion	1:2.95

Herbert Tillander was born in St Petersburg where his grandfather was a purveyor of jewels to the Russian court. After the Russian Revolution, the family returned to Finland and Tillander worked throughout Europe for many exclusive jewelers.



Scandinavian Standard Brilliant  
© M. Dundek

He later studied gemmology in the United States and London. For his work, the British Gemmological Association awarded him its highest honour, the Tully Medal. Tillander eventually took over the family business and became court jeweller to the Swedish royal family.

Tillander is mainly known for his significant contributions to the development of the Scandinavian Diamond Nomenclature (Scan D.N., 1969), an internationally recognized grading system. Just like Eppler, Tillander calculated the "ideal" proportions based on a large number of diamonds available on the market. The Scandinavian Standard Brilliant constitutes the basis for diamond grading in Scandinavia.



# KULSEN & HENNIG

Nature's Brilliant Colours

Newsletter No. 15

06/2013

## 1972 – Eulitz-Brilliant

Crown Height	14.45 %	Pavilion Depth	43.15 %
Crown Angle	33.36°	Pavilion Angle	40.48°
Table Diameter	56.60 %	Crown : Pavilion	1:2.95

In his book, "*Mathematically Determining the Optimum Brilliance of Brilliants*", Werner R. Eulitz showed mathematically that by using the proportions he had calculated, a maximum of light yield (resulting from total internal reflection) and an optimal colour dispersion could be attained. These calculated values are very close to those determined empirically by Eppler.

The following illustrations clearly show the variations in the proportions of each model and the differing cultural perceptions of what is "ideal".

*Tolkowsky Brilliant*

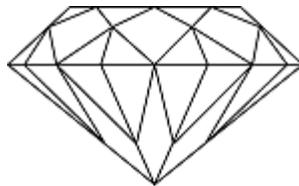


Crown Height	16.20 %
Pavilion Depth	43.10 %

Crown Angle	34.50°
Pavilion Angle	40.75°

Table Diameter	53.00 %
Crown : Pavilion	1:2.66

*Ideal-Brilliant*



Crown Height	19.20 %
Pavilion Depth	40.00 %

Crown Angle	41.10°
Pavilion Angle	38.70°

Table Diameter	56.10 %
Crown : Pavilion	1:2.07

*Practical Fine Cut*

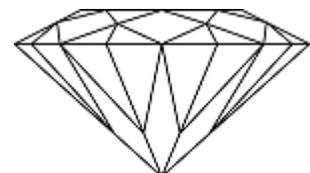


Crown Height	14.40 %
Pavilion Depth	43.20 %

Crown Angle	33.10°
Pavilion Angle	40.50°

Table Diameter	56.00 %
Crown : Pavilion	1:3.00

*Parker Brilliant*



Crown Height	10.50 %
Pavilion Depth	43.40 %

Crown Angle	25.50°
Pavilion Angle	40.90°

Table Diameter	55.90 %
Crown : Pavilion	1:4.13