KULSEN & HENNIG
Nature's Brilliant Colours

Newsletter No. 12 10/2012

In this Edition:

KULSEN & HENNIG News

Autumn News

Dear Customers, Readers, and Friends!

Summer has drawn to a close and the Christmas trade is fast approaching. Ready as ever to meet to your expectations, we have brought back some remarkable stones from our "fall purchases" and the variety of our champagne coloured diamonds offers multiple possibilities. Perhaps a lovely assortment of stones in shaded tones will inspire you.

We regularly assist our clients with their exhibits and presentations, and the enthusiasm of the final customer speaks for itself. The concept works: Natural Fancy Coloured Diamonds want to be seen! Our colour grading cards have also proven their worth during sales appointments – be sure to order your copies.

The autumn winds have brought change to Switzerland: starting November 2012, we are pleased to welcome Elena Asklipiadis, already well known to many of you in the jewellery industry, as manager of our Winterthur office.

We are convinced that a company's success depends largely on the skills of its employees. This is why we are so thrilled that our colleague Susanne Noell has successfully completed the "Diamond Knowledge I – IV" courses offered by the German Gemmological Association (Deutschen Gemmologischen Gesellschaft) in Idar-Oberstein. You can read all about her experience in this edition.

Looking forward to continuing our work together!

Your KULSEN & HENNIG Team

From Our Collection:
Shaded Colour Tones - A Harmony of Colours

Shaded colour tones bring special harmony to your jewellery. Our collection features stones from 0,01 ct to 0,20 ct in a wide range of colour shades.

We will gladly custom arrange shaded tones from light to dark in pastel or bold colour combinations. For this, we suggest our brilliant cut and princess cut diamonds in C1-C7 colours.

If you are interested in shaded colour tones, please contact us:

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

Susanne Noell - Four Weeks of Diamond Class

Still inexperienced in evaluating diamonds, I had the opportunity to attend a four-week course at the Gemmological Society in Idar-Oberstein to learn the basics of diamond grading according to IDC (International Diamond Council) standards.

…and I was not sure what to expect!

Read more...

All about Natural Coloured Diamonds

London's Most Expensive Bicycle – The Brogue Bike

Simon Harcourt, a designer specialised in leather, was working on a custom order with the jeweller Nick Fitch when Fitch noticed a bike hanging on the wall. Full of enthusiasm, he convinced Harcourt to transform the old model into something extraordinary. The result is London's most expensive bike.

The frame is covered with expensive Italian tanned leather and is fitted with a removable saddle bag with silver buckles.

The really special part, however, is the handlebar. Its ends are worked in sterling silver and surrounded by a wreath of Natural Fancy Colored dark brown diamonds!

This luxurious bike, suitable for a sophisticated Londoner and leisurely excursions in mild weather, costs 25,000 pounds sterling.

Diamond Divas
Marilyn Monroe and the *Moon of Baroda*

In our minds, Marilyn Monroe is closely associated with diamonds and you most certainly know the song "Diamonds Are a Girl's Best Friend". Most likely, then, it would be hard to say who shone the brightest, Marilyn or the *Moon of Baroda*.

In 1953, the diva wore the precious diamond during the publicity campaign for Howard Halks comedy, "Gentlemen Prefer Blondes". Marilyn played the role of naïve, yet clever, Lorelei Lee.

Read more...

Gemmology Corner

The Brilliant Cut – Chapter 2: The Modern Brilliant Cut

In chapter 1 of this series, we looked at the historical development of the brilliant cut.

In this chapter, we will look at the characteristics of the modern round brilliant cut. We will explain how the stone cutter uses the laws of optics to his advantage when arranging the facets.

Read more...

Useful Information Concerning Diamonds: Measurements and Weights

For daily use, we have designed a chart for round brilliant cut diamonds that includes corresponding measurements and weights.

Print your chart...

You will receive our next newsletter in December 2012.

Earlier editions of our newsletter may be found in our newsletter-archive.

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Susanne Noell – Four Weeks of Diamond Class

Diamond Knowledge I-IV

Convinced of the quality of the "Diamond Knowledge I-IV" courses that I recently took at the German Gemmological Society in Idar-Oberstein, I would like to share my experience with our readers.

Each day of class began with a theoretical part during which the basics of diamond grading were explained according to IDC (International Diamond Council) standards. In the afternoon, we had ample opportunity to put the theory into practice.

Mr. Schmiden

Mr Schmiden, our professor, led us gradually and systematically towards working with diamonds. He never tired of answering our questions and providing assistance. We had extensive opportunities to observe diamonds and learned to use scales, leveridge gauges, master stones, fluorescent lamps, and proportion scopes.

For the practical exercises, a selection of diamonds of different purity levels and grinding quality was available, providing a realistic idea of the variety of internal and external features. We were also able to compare our results with the model answers provided by the school.

Jeweller's Loupe, measure and calculate

Handling a 10x jeweller's loupe was unusual for me at first. I found it difficult to hold a diamond under the light of a standard lamp without being confused by its reflections.

For me, the visual assessment was the most difficult part of the exercise. It takes a lot of experience to identify and evaluate the internal and external features of a diamond – and especially to find them in the first place!

But the four weeks of training paid off. My view became more precise and I learned to focus my eye on certain areas to observe, for example, the position of the facets more closely or to determine the type of a given internal feature.

The proportion scope provides percentages based on the proportions and the symmetry of certain characteristics of round brilliant cut and modified brilliant cut diamonds.

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When I was not sure about something or when I was not able to see anything in a stone, there was always someone to help, whether Mr. Schmiden or a classmate. In my opinion, the helpful attitude and common interest of the group contributed to the quality of the course.

In addition to visual inspection, the course also included, of course, a section on calculations and measurements and the documentation of the results. The structured and clearly designed teaching materials helped us to keep everything straight. One message in particular was clearly conveyed to us: working with diamonds requires a systematic and circumspect approach.

The Classroom

The course ended with both a practical and a theoretical exam; we all passed, by the way!

I would also add that during these four weeks I met many open-minded and interesting people from all sectors of the jewellery industry. The stimulating and informative discussions we had have broadened my view of the world of diamonds.

It was certainly worth it and I fully recommend this course.

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All about Natural Coloured Diamonds

Diamond Divas - Marilyn Monroe and the *Moon of Baroda*

The *Moon of Baroda*
A pear-shaped, canary yellow Natural Fancy Coloured Diamond weighing 24.04 ct, the *Moon of Baroda*, in a filigree gold setting on a narrow black band, sparkled around the neck of the actress. It would have been difficult to say which sparkled more, the actress or the diamond; it would have been no easier, though, to say which complemented the other better, the diamond the Hollywood star, or the star the *Moon of Baroda*.

The close-up of a laughing Marilyn, seductive and triumphant, emblazoned the coloured magazine covers. We see her, with the narrow black band between her fingers, presenting the *Moon of Baroda* to the camera like a trophy.

A trophy which is, like her, a desirable diva: unique and unattainable. The colours, the shapes, and the photos themselves play with these same qualities.

The famous black and white photographs of Marilyn wearing the *Moon of Baroda* are both understated and elegant. But here in this pose, a promise of closeness and possession is clear. With her head back, her eyes half-closed, and her lips slightly open, Marilyn and her pose show the *Moon of Baroda* off to its best advantage.

The interplay of light and shadows beautifully illuminates the polished stone and the diva's hair. The *Moon of Baroda* was of course only loaned. Meyer Rosenbaum of the Meyer Jewelry Company provided the diamond to advertise the movie and famous song, "Diamonds Are a Girl's Best Friend".

Rosenbaum acquired the precious stone in the 1950s. Like most historic diamonds, the *Moon of Baroda* has often changed, and continues to change, owners. Are diamonds really a young woman's best friend?

Marilyn, Maria Theresa and Marie-Antoinette
Marilyn was not the only temporary owner of this precious and equally famous stone. Other high ranking women preceded her. It is said that the Moon of Baroda at one time belonged to Maria Theresa, Empress of Austria. Although not unchallenged, the reformist heir to the throne led government affairs from 1740 until her death in 1780.

No proof exists, however, that she ever wore the diamond herself. Photography did not exist at the time and the stone is nowhere to be seen in her portraits. Legend has it, though, that she allowed one of her many daughters to wear the diamond.

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The *Moon of Baroda*

One might speculate that it was the youngest daughter of the Habsburg monarch, Marie-Antoinette, the pretentious wife of Louis XVI. If she ever did wear the diamond, it certainly did not bring her luck: she was guillotined on October 16, 1793.

That event presumably fuelled speculation that she did indeed wear the *Moon of Baroda*. One might shudder pleasantly at the idea of such a beautiful stone once adorning the delicate neck of a decapitated queen.

The Maharaja of Baroda

The *Moon of Baroda* is one of the most famous Natural Fancy Coloured Diamonds. It is believed to be 500 years old and originally from India, more specifically from the former West Indian principality of Baroda. The Gaekwad dynasty ruled Baroda from the 17th century until the late 1940s and they are said to have been the first owners of this famous Natural Fancy Coloured Diamond. One of the Maharajas may have sent the *Moon of Baroda* on tour, though, as it is supposed to have been with the Hapsburgs in the 18th century.

Maharadja Khande Rao of Baroda

Nevertheless, the actual route taken by the *Moon of Baroda* remains a mystery. In the 19th century, it reappeared in Baroda where it obtained its current cut. One Maharaja wore it on a necklace. Then the stone set off on tour again and in 1926 was seen at an exhibition in Los Angeles.

If the *Moon of Baroda* is a faithful ally, as is said and sung of diamonds, its changing owners certainly were not. Only Marilyn Monroe, who was simply lent the diamond, seems to have recognized and estimated its true value in "Diamonds Are a Girl's Best Friend".

Just as her character Lorelei Lee sang in the song, kisses might be nice, but they don't pay the rent or buy food, and youth and beauty fade, after all. Diamonds, on the other hand, never lose their luster. There are many men, but only one *Moon of Baroda*.

Source:
Diamond Divas. Vinciane van Grotenhuis, BAI, 2008

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Gemmology Corner

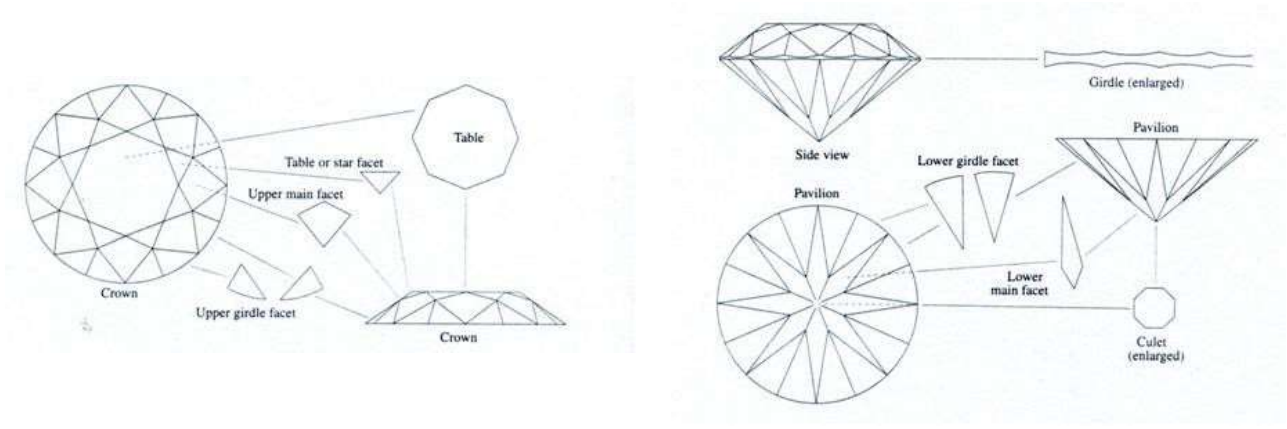
The Brilliant Cut – Chapter 2: The Modern Brilliant Cut

The Modern Brilliant Cut

The modern round brilliant cut is the most popular diamond cut and is considered ideal for colourless (white) or slightly tinted diamonds because it dissipates almost completely the yellow, brown or grey shades present in almost all diamonds. But, for this same reason, this cut is hardly suitable for Natural Fancy Coloured Diamonds, as in their case, the goal is to accentuate those very same diamond colours as intensely as possible.

The name "brilliant", from the French word "brillant" meaning shiny or bright, is today closely linked to the mineral that is a diamond. Nevertheless, the term brilliant refers, in fact, to a specific cut and describes, in our case, a round cut gemstone with 57 facets (58 if the culet is visible). To be entirely accurate, we would have to speak of a brilliant cut diamond.

The facets of a brilliant cut diamond are designated as follows: On the crown of the diamond are the table, 8 table facets, 8 upper main facets and 16 upper girdle facets. The diamond's pavilion includes 8 lower main facets, 16 lower girdle facets, and the culet. The following illustrations show the position and shape of the table, the facets, and the culet.



The facets of a brilliant. Diamond Grading ABC, p. 186

"Life" and "Fire" in a Diamond

To create a beautiful stone, it is not enough to simply give a rough diamond a round shape and provide it with 57 facets. Of course, the number of facets, the way they are arranged on the crown and the pavilion, and their angles to the girdle fundamentally affect the diamond's appearance. What is also important, however, is the ratio between the crown and the pavilion and the size of the

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table compared to the height of the crown. The angles and the ratios of a diamond's dimensions are what we call its proportions. In turn, the "life" and "fire" of a diamond depend on its proportions.

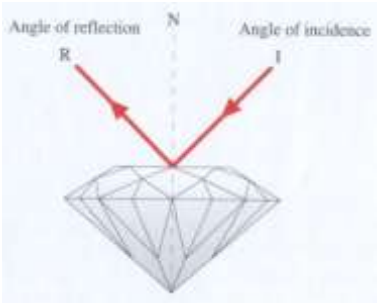
The "Life" of a Diamond

A diamond's "life" refers to its brilliance. The term brilliance involves several distinct optical processes in the diamond including external brilliance, internal brilliance, and scintillation brilliance.

External Brilliance (Lustre)

The external brilliance of a diamond is produced by the reflection of light from the surface of its facets. A ray of light which falls on the surface of the diamond is split into two rays.

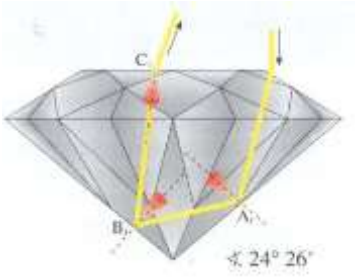
While one part of the ray enters the diamond, the remaining light component is reflected back from the surface of the stone. The term lustre means the totality of the light reflected at the surface. This phenomenon, very marked in diamonds, is described as "adamantine".



Reflexion of light on the surface of a stone.
Diamond Grading ABC, p. 177

Internal Brilliance

A high refractive index in a diamond and a total reflexion of light by the lower main facets cause the internal brilliance. The following diagram illustrates this process:



Light refraction and total reflection.
Diamond Grading ABC, p. 181

The light enters the diamond and is refracted and reflected twice by the lower main facets inside the stone. For optimal brilliance, it is crucial that the light be reflected and redirected up and out of the crown, towards the observer.

A certain base angle - the angle between the girdle and the lower main facets - is necessary to reflect the light from the lower main facets.

If the pavilion is too deep, the light that enters the diamond is refracted out through its base, and if the pavilion is too flat, the light is reflected out through the sides.

Ideal Pavilion Pavilion too deep Pavilion too flat

Pavilion depth and Light Refraction. Diamond Grading ABC, p. 211

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Scintillation Brilliance

The different light reflections that occur if a diamond or the light source is moved cause a diamond to sparkle. Scintillation brilliance is caused by the number and arrangement of light reflections. The extent to which a diamond reflects light in movement depends on the symmetrical arrangement, the number and the size of the facets, as well as the quality of the polishing and the materials used.

Dispersion.
© Michael Drechsler Jewelry Ltd.

The “Fire” of a Diamond

A diamond’s “fire” refers to the dispersion of the colours contained in white light. If, for example, a white light passes through a prism, it is not only broken, but split into spectral colours. This effect is called dispersion.

Since the breakdown of colours in diamonds is particularly great, sometimes a play of colours can be observed. Clearly, however, this is only true for colourless or slightly tinted stones. This effect is almost never observed in Natural Fancy Coloured Diamonds.

The size of the diamond’s table plays a crucial role because a larger table may indeed increase the brilliance, but will at the same time decrease the "fire". In contrast, a smaller table will increase the diamond’s "fire", but reduce its brilliance.

By using findings on the optical and physical properties of diamonds, it became possible to determine the appropriate proportions and symmetry conditions for optimum brilliance.

The purpose of the brilliant cut is to achieve a "balance" between "life" (brilliance) and "fire", even if what is considered to be “balanced” proportions may well vary from one culture to another.

Impact of the crown facet size on dispersion.
Diamond Grading ABC, p. 184

Source:
Diamond Grading ABC - The Manual. Verena Pagel-Theisen, 2007.

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Gemmology Corner

Useful Information Concerning Diamonds

The round Brilliant Cut – Measurements and Weights			
0,95 - 1,05 mm	0,005 ct	3,45 - 3,55 mm	0,16 ct
1,25 - 1,35 mm	**0,01 ct**	**3,60 - 3,70 mm**	**0,18 ct**
1,45 - 1,55 mm	0,015 ct	3,70 - 3,90 mm	0,18 - 0,22 ct
1,60 - 1,70 mm	**0,02 ct**	**3,90 - 4,15 mm**	**0,23 - 0,27 ct**
1,75 - 1,85 mm	0,025 ct	4,15 - 4,25 mm	0,28 - 0,29 ct
1,90 - 2,00 mm	**0,03 ct**	**4,25 - 4,35 mm**	**0,29 - 0,32 ct**
2,00 – 2,10 mm	0,035 ct	4,35 - 4,60 mm	0,33 - 0,37 ct
2,10 - 2.20 mm	**0,04 ct**	**4,65 - 4,80 mm**	**0,38 - 0,42 ct**
2,20 - 2,25 mm	0,045 ct	4,80 - 5,00 mm	0,43 - 0,48 ct
2,25 - 2,35 mm	**0,05 ct**	**5,00 - 5,35 mm**	**0,49 - 0,57 ct**
2,35 - 2,45 mm	0,055 ct	5,35 - 5,55 mm	0,58 - 0,67 ct
2,45 - 2,55 mm	**0,06 ct**	**5,60 - 5,80 mm**	**0,68 - 0,77 ct**
2,55 - 2,65 mm	0,07 ct	5,80 - 6,00 mm	0,78 - 0,87 ct
2,70 - 2,80 mm	**0,08 ct**	**6,00 - 6,25 mm**	**0,88 - 0,95 ct**
2,80 - 2,90 mm	0,09 ct	6,40 - 6,60 mm	1,00 - 1,10 ct
2,90 - 3,00 mm	**0,10 ct**	**6,90 - 7,10 mm**	**1,20 - 1,30 ct**
3,00 - 3,10 mm	0,11 ct	7,30 - 7,60 mm	1,40 - 1,60 ct
3,10 - 3,20 mm	**0,12 ct**	**7,60 - 7,80 mm**	**1,60 - 1,80 ct**
3,20 - 3,30 mm	0,13 ct	8,00 - 8,40 mm	2,00 - 2,25 ct
3,30 - 3,35 mm	**0,14 ct**	**8,80 - 9,40 mm**	**3,00 - 3,25 ct**
3,35 - 3,45 mm	0,15 ct	10,00 - 10,40 mm	4,00 - 4,25 ct