



# KULSEN & HENNIG DOMINIK KULSEN Nature's Brilliant Colours

Newsletter No. 18

02/2014

## In this Edition:

### Our News

Shadows and Light!

Visit Us at INHORGENTA MUNICH 2014

Our New Colour Grading Card: Gray

From Our Collection: A 4.52 ct Round Brilliant Cut Fancy Light Gray Diamond (GIA)

### All about Natural coloured Diamonds

A Steel-gray Beauty

The Fascinating Diversity of Gray

Naats – A Gray with Vivid Brilliance

### Gemmology Corner

Diamond Colours: Gray

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## Our News

### Shadows and Light!

Dear Customers, Dear Friends,

Welcome to a New Year!

Welcome to the INHORGENTA MUNICH Fair!

The colour gray definitely triggers contradictory feelings; do you associate it with not only boredom and monotony but also with elegance and discretion?

This year, we are focusing on gray as a diamond colour and we hope to show you the diversity offered by this fascinating colour. Prepare to be surprised by a gray diamond of exquisite purity and clarity and find inspiration for your collections with lively "Naats".

We will also answer your questions about how gray affects us and explain the origins of gray colour in diamonds.

You might just be surprised at what gray can do!

Juliane Hennig

Your KULSEN & HENNIG Team

Dominik Kulsen

Your DOMINIK KULSEN Team



## Visit Us at INHORGHENTA MUNICH 2014

We cordially invite you to come visit us at our stand at INHORGHENTA MUNICH 2014 from 14 – 17 February.

Take this opportunity to discover our entire range of Natural Fancy Coloured Diamonds and experience the discreet charm of our gray diamonds for yourself. Our new colour chart for gray diamonds is ready and waiting for you.

We look forward to your visit!

Your KULSEN & HENNIG Team  
Your DOMINIK KULSEN Team

You can find us at the Munich Trade Fair Centre:

[Hall C1 / Stand 309 / Aisle C - Hall Map](#)

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## Our New Colour Grading Card: Gray

This year, we are pleased to present our new colour card for versatile and elegant gray diamonds. After our colour cards for champagne, yellow, pink and orange diamonds, this newest card is the fifth in our series.

This card also provides support during customer meetings and makes giving an accurate description of a diamond's colour much easier. Based on recognized GIA terminology, the card shows colour graduation from Fancy White to Fancy Light Gray to Fancy Dark Gray, and includes Fancy Brownish Gray and Fancy Dark Brownish Gray shades as well.

We have included brown as a modifying colour because it is so common in gray diamonds. Pure gray diamonds are extremely rare in nature. On the back of the card, you will find key facts about the origin of the colour gray in diamonds.

To download the colour grading card, click

[here](#).

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## From Our Collection:

### A 4.52 ct Round Brilliant Cut Fancy Light Gray Diamond (GIA)

Today, we are presenting a real eye-catcher!

This elegant, soft-gray stone is impressive enough for its size alone. But its colour, graded by the Gemological Institute of America as Fancy Light Gray, is also very impressive for a gray diamond of this size. Indeed, one or more modifying colours are usually visible in most gray Natural Fancy Coloured Diamonds.

For us, this diamond would be perfect for an exclusive piece of jewellery, whether as a pendant or as a fascinating solitary ring. Treat yourself to this rare piece of nature! If you are interested in this stone, please contact us or come



see it for yourself at our stand at INHORGHENTA MUNICH.

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[View the GIA Certificate](#)

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## All about Natural Coloured Diamonds

### A Steel-gray Beauty

At the Baselworld 2013 trade show, the Siegelson diamond company presented a diamond ring from the Art Deco period (ca. 1925) whose beauty and charm immediately captivated us. The ring is adorned with a 10.67 ct emerald cut gray diamond, mounted in a platinum prong setting.

The Swiss diamond laboratory [Gübelin](#) noted in its study of this stone that diamonds of this size in such a pure steel-gray colour are extremely rare. The laboratory describes the stone as being an octagonal step cut, with SI1 purity and a Fancy Gray colour.



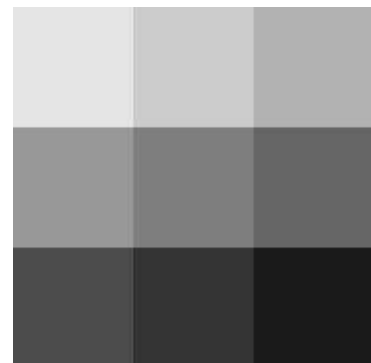
[Read more...](#)

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### The Fascinating Diversity of Gray

All of the colours that exist between pure white and pure black are known as grayscale. The human eye is able to distinguish 500 shades of gray.

Gray is a colour that features countless shades and hues that bring shapes and contours to our world.



[Read more...](#)

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## Naats – A Gray with Vivid Brilliance

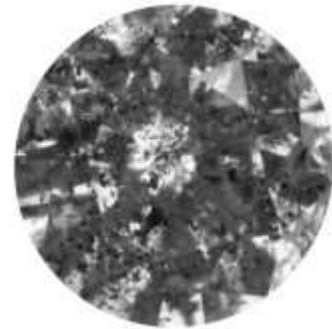
In the diamond trade, different qualities of gray diamonds are available. One of them is known as Naats.

The origin of the term Naats is unclear, but is used to refer to colourless diamonds with large, dark inclusions that are evenly distributed in the stone and clearly visible to the naked eye. They are also sometimes called "White Naats", referring to the fact that these diamonds are colourless. When Naats are viewed, their coloured inclusions cause a gray colour effect.

Naats occur in many shades of gray. The colour palette ranges from light silver gray to medium gray to dark anthracite. Well cut and carefully selected Naats have an attractive, lively brilliance.

For jewellery designers, Naats are quite attractive because of their vibrant effect and their affordable price. Goldsmiths have developed two apt names for Naats: "salt and pepper" and "Dalmatian diamonds".

Incidentally, Rio Tinto, operator of the Argyle diamond mine, sells its gray, inclusion-rich diamonds as "Silvermist Diamonds" and has even developed its own line of jewellery for them.



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## Gemmology Corner

### Diamond Colours: Gray

Gray is considered as a colour stimulus, darker than white and lighter than black, but does not produce a coloured impression. Gray is a colour with "no colour", otherwise known as achromatic.

The colour gray offers an amazing variety of shades and hues that can also be found in gray diamonds.



[Read more...](#)

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You will receive our next newsletter in June 2014.

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

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Johannesburg    Mumbai    New York  
www.gia.edu

COLORED DIAMOND IDENTIFICATION AND ORIGIN REPORT

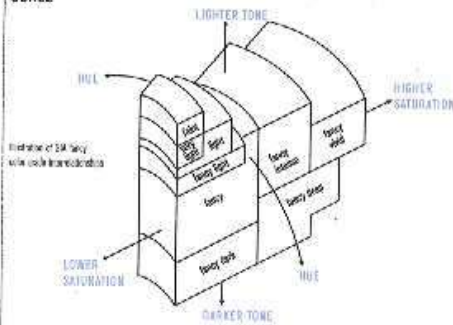
GIA REPORT 17252900

June 20, 2008

Shape and Cutting Style ..... **ROUND BRILLIANT**  
 Measurements ..... **10.20 - 10.24 x 6.79 mm**  
 Weight ..... **4.52 carat**  
 Color Grade .....  
 Origin ..... **NATURAL**  
 Grade ..... **FANCY LIGHT**  
 ..... **GRAY**  
 Distribution ..... **EVEN**

Comments:  
None

GIA  
COLORED  
DIAMOND  
SCALE



555581802

This Report is not a guarantee, selection or appraisal and denotes only the identification of the diamond selected herein after it has been graded. Initial removal and analysis by the laboratory used by the Retail Client's vendor has been reported using the techniques and equipment used by GIA at the time of the examination and/or inspection. Inscriptions reported in this document are not a guarantee, selection, or appraisal of a diamond's purity, country of origin or source, or that the diamond will be available in the future. Since inscriptions can be removed, GIA makes no representation or warranty, by trademark, word, or symbol which is inscribed by GIA or which is described on this Report. The recipient of this Report may advise Gemworld's e-commerce provider or jeweler about the information contained herein.



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Nature's Brilliant Colours

Newsletter No. 18

02/2014

## All about Natural Coloured Diamonds

### A Steel-gray Beauty

The Swiss diamond laboratory Gübelin noted in its study of this stone that gray diamonds of this size with such a pure "steel-gray" colour are extremely rare. The laboratory describes the diamond's cut as an octagonal step-cut, its purity as SI1, and its colour as Fancy Grey.

Gübelin classified the stone as a type IIb, a particularly pure grade of diamonds. According to the examination, the diamond does not contain any of the nitrogen impurities that often bring a yellowish tone to a diamond's colour. Furthermore, it should be noted that type IIb diamonds usually exhibit a more or less saturated blue, sometimes modified by a secondary gray colour.

Gray can also sometimes be the dominant colour. The considerable amounts of boron contained in this diamond produce a saturated hue that appears as a clear gray without any other colour.



The Gemological Institute of America (GIA) describes the stone as having an emerald cut, a SI1 purity grading and a Fancy Gray colour.

Stephen C. Hofer, American specialist in Natural Fancy Coloured Diamonds expressed his fascination for the stone in a letter to the Siegelson diamond company dated 6 March 2012.

He is just as delighted with the size, transparency and excellent cut of this stone as with its purity, colour and the play of gray shades that it displays to the viewer. For Stephen C. Hofer, this exceptional gray diamond surpasses all others in its kind.



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Nature's Brilliant Colours

Newsletter No. 18

02/2014



## Diamond Report



No.	11110137
Date	14 December 2011
Weight	10.67 ct
Shape	octagonal
Cut	step cut
Measurements	14.87 x 11.54 x 7.63 mm
Depth	66.1 %
Table	56 %
Girdle	very thin to medium, polished
Culet	large
Clarity Grade	SI 1
Colour Grade	fancy grey
Fluorescence	none
Comments	Natural colour. See Appendix. <small>Important notes and limitations on the reverse.</small>



Susy Gübelin, G.G.



Pierre Hardy, B.Sc.

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Newsletter No. 18

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### COLORED DIAMOND GRADING REPORT

August 30, 2011

Shape and Cutting Style ..... **Emerald Cut**  
Measurements ..... **14.88 x 11.55 x 7.63 mm**

**GIA REPORT 2135796072**

**GRADING RESULTS**

Carat Weight ..... **10.67 carat**  
Color ..... **NATURAL**  
Origin ..... **FANCY**  
Grade ..... **GRAY**  
Distribution ..... **Even**  
Clarity Grade ..... **S11**

**ADDITIONAL SPECIAL INFORMATION**

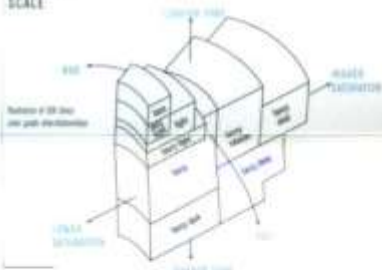
Finish  
Polish ..... **Very Good**  
Symmetry ..... **Good**  
Fluorescence ..... **None**  
Comments:  
Internal graining is not shown.  
Additional extra facets are not shown.


**NECESSARY COMMENTS**

**GIA CLARITY SCALE**

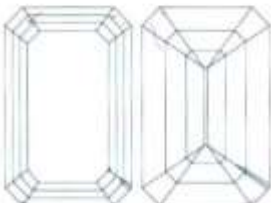
FLAWLESS  
INTERNALLY FLAWLESS  
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VS<sub>1</sub>  
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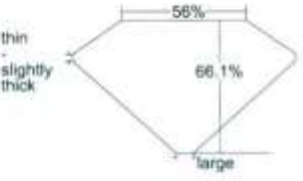
**GIA COLORED DIAMOND SCALE**





110212859911






Profile not to actual proportions

**KEY TO SYMBOLS**

- Feather
- Crystal
- Cavity
- Indented Natural
- Extra Facet

Red symbols denote internal characteristics (inclusions). Green or black symbols denote external characteristics (blemishes). Diagrams are an approximate representation of the diamond, and symbols shown indicate type, position, and approximate size of clarity characteristics. All clarity characteristics may not be shown. Details of facets are not shown.

This report is not a guarantee, valuation or appraisal and extends only to the characteristics of the diamond described herein after it has been graded under conditions not outlined by the document providing this report ("GR"). Should the diamond under study be subjected to any treatment (including but not limited to laser drilling or fracture filling) or any other process which is not a guarantee, extension or warranty of a diamond's quality, security of origin or source, or that the diamond will be available in the marketplace in the future (unless otherwise stated), the recipient of this report may wish to consult a competent jeweler or gemologist about the information contained herein.



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Nature's Brilliant Colours

Newsletter No. 18

02/2014

## All about Natural Fancy Coloured Diamonds

### The Fascinating Diversity of Gray

Gray is often associated not only with bureaucracy and practicality but also with sadness and despair. Although it is true that a gray, overcast sky might spoil the mood, shades of gray can also bring magic to our world – just think of the shades of dawn. Gray is an intermediate tone, just as the dawn falls somewhere between night and day.

#### Gray in Art

The idea of intentionally not using colour goes back to ancient times, but reducing colour to different shades of gray has only been seen since the beginning of the 14<sup>th</sup> century, as in the case of illuminated manuscripts, for example.

Medieval and early modern sources usually speak of painting in black and white or of "stone colour" images. In France, the term "grisaille" appeared in the 17<sup>th</sup> century to refer to painting executed in only white, gray and black.

This artistic technique is used to explore the difference between an image and its reproduction. It is in fact by abandoning colours that the reproduction becomes superior to reality.



© Hiroshi Sugimoto

In a way, this tradition still continues today with photography and film. Hence, the beauty of black and white photography and film documentaries emphasizes the reality of what is being shown while at the same time highlighting the shape.





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Nature's Brilliant Colours

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## The Psychology of the Colour Gray

The trendy colour gray is much appreciated in fashion, interior design and especially in the business world. Gray is not usually cited among common favourite colours, but it is a colour we associate with positive attributes such as discretion, reliability and elegance.

In the business world, gray suits for both men and women are considered an indication of integrity and trustworthiness.

Gray is used often in offices and conference rooms because it does not strain the eyes and restores balance to contrasts and glare. Gray furniture has a calming effect and is easy to combine with other colours.

In fashion, gray stands for elegance. Shades between light gray and dark gray match perfectly with each other or with other colours. Whether bright colours, black or colourful prints, the colour gray pulls everything together.



As is true for all other colours, using gray achieves certain effects. Light shades of gray (light gray, pearl gray, ice gray, silver gray) seem light, analytical, refined, noble, delicate and neutral.

Medium shades (granite gray, slate gray, pebble gray, dove gray) are associated not only with professionalism, competence or distance but also with intelligence, structure and accuracy. A dark gray (anthracite) is elegant, concentrated, deep, precise and unambiguous.



# KULSEN & HENNIG DOMINIK KULSEN

Nature's Brilliant Colours

Newsletter No. 18

02/2014

## Gemmology Corner

### Diamond Colours - Gray

Mixing black and white pigments results in gray, as does mixing white with complementary colours like yellow and violet, or white with red and green or with blue and orange. Gray can also result, however, from partial absorption of certain particles of visible light in transparent or translucent materials like diamonds.

#### Origin of Colour: Absorption by Deposits

Absorption of certain light particles is one of the two causes of the development of a gray colour in diamonds. Deposits of boron and/or hydrogen atoms in the crystalline structure are responsible for the absorption of this light.

Boron deposits (in what are known as type IIb diamonds) produce a gray to blue colour in diamonds. Diamonds with very low boron content will appear gray. Strictly speaking, the colour is actually a very light blue with low colour saturation that appears gray. Such diamonds may be free of inclusions and are very rare. The presence of hydrogen deposits will result in diamonds having a gray to violet colour, like those that are mined almost exclusively at the Argyle diamond mine in Australia. The violet colour saturation is usually so weak that the diamonds, although actually violet, appear gray.



Pear Shape Diamond  
Fancy Gray

#### Origin of Colour: Light Scattering by Inclusions

Much more frequently, there are tiny particles in transparent diamonds on which wavelengths of light scatter. Typically, these particles are not gray, but white or colorless, and they produce a cloudy appearance. All the light wavelengths scatter equally among them so that the diamond appears gray (or black in extreme cases).



Round Brilliant  
Silvermist Diamond

#### The Colour Impression: Gray

For "larger" gray or black inclusions in virtually colourless diamonds, light scattering plays a minor role. The gray colour of the diamond in this case is caused mainly by the colour of the inclusions that can be seen with the naked eye. These diamonds are available in the trade as "Naats" or "White Naats" or even "Silvermist Diamonds".

Read more about these diamonds in our article "Naats – A Gray with Vivid Brilliance" in this newsletter.



# KULSEN & HENNIG DOMINIK KULSEN

Nature's Brilliant Colours

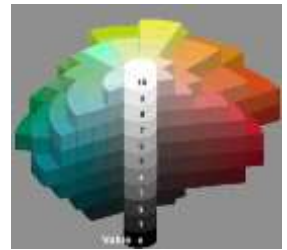
Newsletter No. 18

02/2014

## Colour Modifiers in Gray Diamonds

According to the American painter and art teacher, Albert Henry Munsell (1858 – 1918), and his three dimensional colour system, gray is located along the central axis. It is surrounded by areas of white, black, brown, purple, pink, yellow, blue, green and olive green. All these colours can also be found as secondary, or modifying, colours in gray diamonds.

The most common colours, however, are yellow, brown and green; pink, violet and blue are much rarer. The iridescent colours of a gray pigeon's feathers give an idea of the modifying colours found in gray diamonds.



Munsell's Color System  
(Value = Light)



## Factors Influencing Colour Determination

Because of modifying colours, it is not always easy to recognize gray as the dominant colour of a diamond. The human brain is attracted to brighter colours, like blue or green, rather than to so-called achromatic colours. This is especially true for bluish-gray or gray-blue diamonds. This is why experienced diamond dealers use pure blue diamonds and/or pure gray diamonds as reference stones.

Another influencing factor is the light source used when viewing gray diamonds. It is therefore advisable to use a consistent light source for visual inspection, preferably using lamps that reproduce natural light as closely as possible with a light temperature of 6500 kelvins (K). This also applies when inspecting any other Natural Coloured Diamond. The way gray diamonds are perceived, in terms of colour, also depends on the environment. For example, in front of a blue wall, the neutral gray colour of a diamond will first appear grayish-blue.



Round Brilliant Fancy  
Brownish Gray

If the viewer looks at the diamond long enough against that background, the eye will adjust to the blue of the wall (chromatic adaptation). The brain automatically compensates for this adjustment by perceiving the object as yellow (a complementary colour of blue). The diamond that originally appeared bluish-gray now seems yellowish-gray.

## Gray Diamonds in the Trade

For a long time, gray was a little appreciated colour for diamonds. One reason for this was that the reference to gray as an "off-colour", a term used increasingly often in trade, was clearly perceived as a negative attribute. Bright natural coloured diamonds were much more interesting economically and more sought after.

Today, gray diamonds have become highly appreciated in jewellery design as they adapt to and enhance all materials and colours.