ROBERT PROCOP Exceptional Jewels

A TREASURE HUNT TO THE EMERALD MINES

EMERALDS: THE ALLURE OF THE GREEN FIRE

"Representing youth, life and rebirth to the ancient Egyptians, valued for their curative and empowering properties as an aide to childbirth by the Romans, emeralds play a major role in the creation legends of several cultures. Their fascinating inclusions are typical for emeralds. They are known as 'ardin' and give each emerald its own unique personality.

The emerald is a member of the beryl family, its chemical composition being beryllium aluminium silicate. They grow in the form of hexagonal prisms. The emerald owes its green colour to traces of chromium and or vanadium found throughout the mineral. The higher the amount of chromium in an emerald, the more intense is its green colour."

-The G belin Gem Lab

"The gardens of the emerald awaken the desire to wander at will, delighting eternally in the fantastic, constantly changing wealth of designs in their evergreen vaults."

-Eduard osef G belin

The treasure hunt for emeralds has given rise to only a few pockets around the globe in countries such as Afghanistan, Brazil, Colombia, Ethiopia, Russia, and Zambia. However, the finest emeralds are found in Colombia, Zambia, and now Ethiopia. The most exceptional of which, shown in this book, are a result of our journey through the richest mines in the world.

ZAMBIAN EMERALDS FROM THE MINES OF KAFUBU

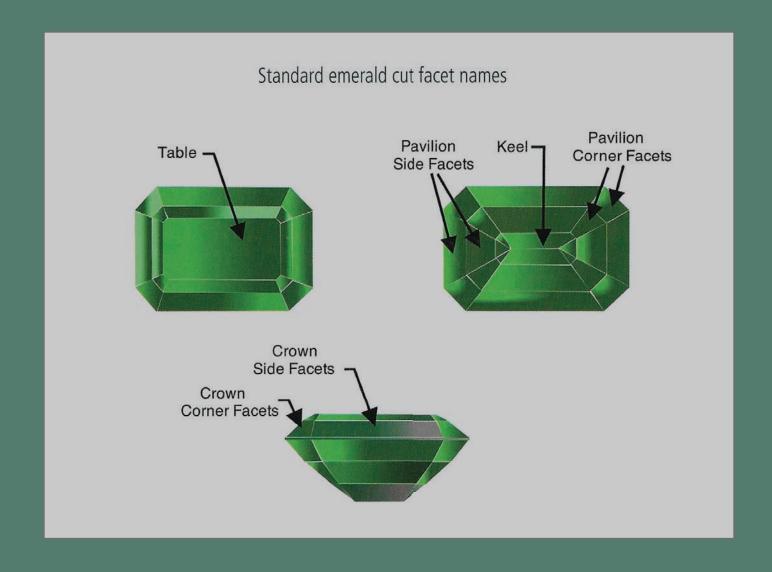


"Zambia is considered the world's second most important source of emeralds by value after Colombia. Unlike Colombian emeralds, emeralds from Zambia are rich in iron and have higher refractive index and specific gravity. Emerald deposits in the Kafubu area occur within rocks of the Mesoproterozoic Muva Supergroup, composed of both metavolcanic and metasedimentary rocks."

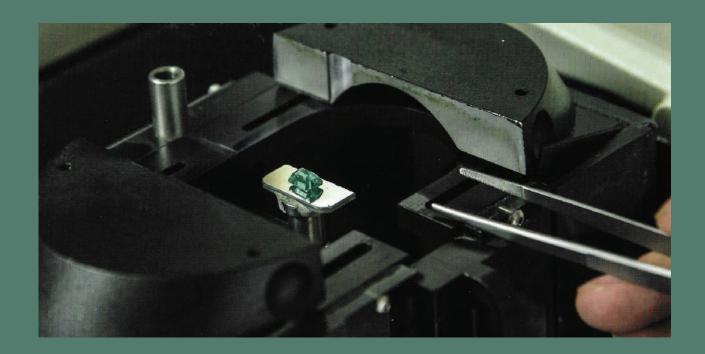
- Gemological Institute of America

Zambian emeralds contain trace amounts of Iron Fe, which give them a wonderful clear glass-like appearance. Because of this, top quality emeralds from Zambia have gem-quality clarity and brilliance.

EMERALD FACETING & CUTTING



Emeralds form in longer hexagonal crystals. They are commonly faceted as rectangular step-cuts called the emerald-cut. This form of cutting takes advantage of the shape of the rough and preserves more weight.



ZAMBIAN FACETED EMERALDS



An Exceptional 4.21ct Emerald-Cut Zambian Emerald

"The emerald-cut is a variation on the step-cut, which refers to any shape in which the facets are cut in a step-like fashion. In the 1500s, when Spain was bringing back rough emeralds from the New World, the original step-cuts had large table facets on the top as well as the bottom."

-Ronald Ringsrud







GEMMOLOGICAL REPORT

Report Number 20023074

Colour

Date 14 February 2020

Species Natural beryl

Item One faceted gemstone

Variety Emerald

Weight 4.21 ct

Origin Zambia (Kafubu)

Shape octagonal

Condition Indications of minor clarity

Cur

enhancement. Natural emeralds are commonly clarity enhanced.

step cut

 $\begin{array}{c} \text{Measurements} \\ 10.12 \times 9.47 \times 6.90 \text{ mm} \end{array}$

Comments See Information Sheet(s).

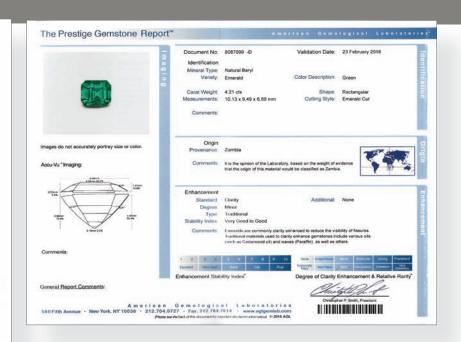
Transparency transparent

Important needs and limitations on the revenu-

den

A. Spingardi Alessandra Spingardi

Annette Widemann-Wong



ZAMBIAN CARVED EMERALDS

A Unique Pair of Carved 12.93ct tw Zambian Emeralds





"A cutter is a highly skilled artist who often understands the dynamics of color and transparency in rough emeralds."

- Ronald Ringsrud





GEMSTONE REPORT

EDELSTEINBERICHT RAPPORT DE PIERRE PRÉCIEUSE

GRS2019-039131 No. Date 3rd March 2019

A pair of faceted and carved gemstones Object

Identification 2 Natural Emeralds

Origin

Gemmological testing revealed characteristics corresponding to those of 2 natural emeralds from:

Zambia





Weight 6.49/6.44 ct

Dimensions 13.07 x 10.28 x 5.66/13.14 x 10.35 x 5.21 (mm)

Cut carved/faceted Shape oval Color green

Comment

CE(O): Minor



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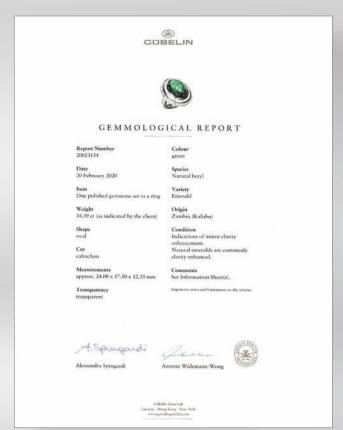
INTERNET

FROM THE KAFUBU MINE OF ZAMBIA TO A CREATED TREASURE



"When a transparent, facet-grade emerald rough is fashioned into a cabochon, the effect is alluring. The transparency allows the gem's liveliness to show. As the stone is turned or moved, it draws one's attention to the charming, lively color."

-Ronald Ringsrud







A Beautiful Pair of 5.92ct tw Zambian Emerald Earrings



C. Dunaigre Consulting certifies these two emeralds as well matched, vivid green, and of very good quality.

The GemResearch SwissLab and the C. Dunaigre Consulting certifies this stone as vivid green and of very good quality.

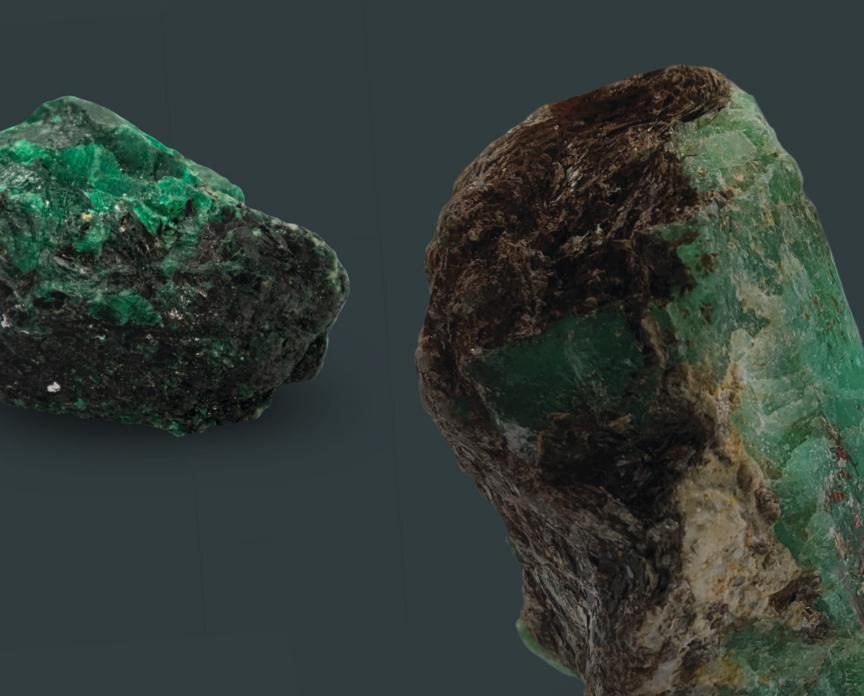


A Rare No-Oil 10.20ct Zambian Emerald





ETHIOPIAN EMERALDS FROM THE MINES OF HALO-SHAKISO



"The top-quality stones from Ethiopia are grass green or green with a hint of a blue hue, and have no need for oil enhancement. Even more exciting is the saturation of these stones. These bright, saturated greens are comparable to stones from the Colombian mines. Some dealers describe the color as 'glowing' or having a 'neon' quality and compare it to paraíba tourmaline in this regard."

-The International Gem Society

HALO-SHAKISO EMERALD MINE SITE IN ETHIOPIA



"Another important marketing point for Halo emeralds is that they are mined in a socially responsible and ethical manner. Because the Bu'a Obsa Company is member based, it is highly engaged in the concerns of the community. In the past two years, it has contributed about . million Ethiopian birr about US 13,000 to community developed projects. Among them are the construction of 15km access road .5million birr , construction of a primary school with grades one through four that will soon be upgraded to the grade, and support of the Subichu Elledimma."

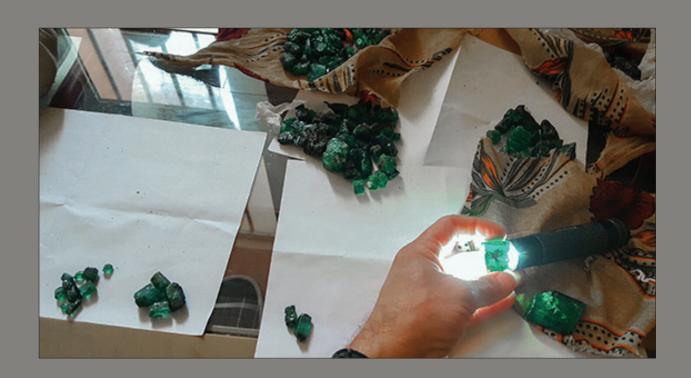
- Gemological Institute of America

SORTING & GRADING ETHIOPIAN EMERALDS



"After the rough has been sorted, it makes its way first through Shakiso before being sold to dealers in the capital city of Addis Ababa, about a 1-hour drive from the mining area. According to Tewoldebran Abay, the mineral marketing director of the Ministry of Mines, Petroleum and Natural Gas, more than 100 kilograms of emerald rough have been produced to date."

- Gemological Institute of America



ETHIOPIAN EMERALD ROUGH TO FACET



The Green Princess from Ethiopia (Photo courtesy of Primagem)





This is an example of a rough Ethiopian emerald that has been faceted and polished.

ETHIOPIAN FACETED EMERALDS



The newly discovered Ethiopian emerald mine is home to some of the world's most spectacular treasures. This location has produced some of the brightest, electric-green emeralds on the planet. Ethiopian emeralds contain high levels of chromium, creating a color and overall quality comparable to the finest Colombian emeralds found over the past 500 years. This II.30ct Ethiopian emerald is one of the most exceptional gems ever discovered. It has been identified by two of the most reputable gem laboratories as completely natural.





ETHIOPIAN CARVED EMERALDS



"Persian artisans in the Seventeenth Century developed the art of carving gemstones in order to elevate even more of the gems they considered exalted and auspicious."

-Ronald Ringsrud



FROM THE
HALO-SHAKISO
MINE OF
ETHIOPIA

TO A CREATED TREASURE

A Beautiful Green 7.10ct Shield Emerald Pendant



This Ethiopian emerald is a unique and rare combination of shape, color, clarity, and brilliance.

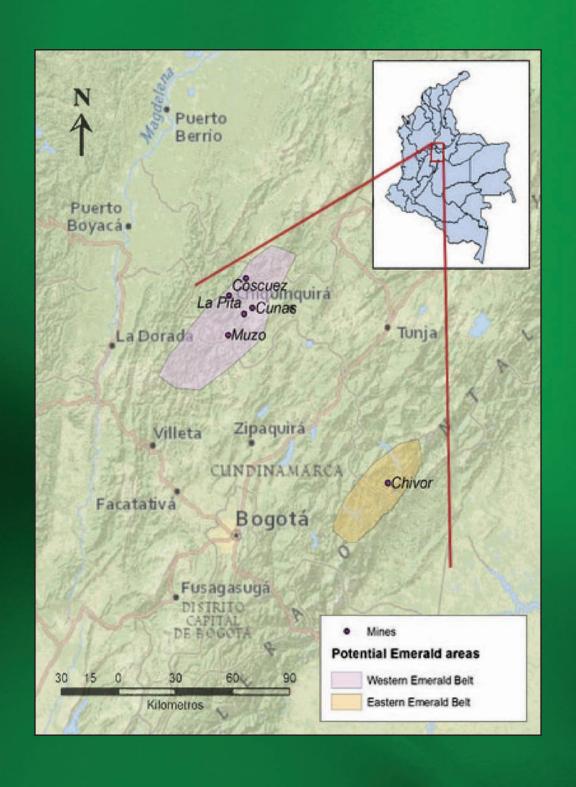




COLOMBIAN EMERALDS

The amount of chromium and vanadium in Colombian emeralds determines the intensity of its green color. The perfect emerald green color in stones coming from the Muzo mining area has given rise to the term "Muzo Green." This describes the color of any Colombian emerald with slightly bluish-green hues. The GemResearch SwissLab uses the term "Muzo Green" in the same context. The exotic emerald mines of the Western mining belt in Colombia - Cunas, Coscuez, La Pita, and Muzo - all deliver a world-class beautiful green color that is the standard by which emeralds from all sources are compared.

In the Eastern Emerald Belt, two hundred kilometers away, is the exotic mine of Chivor. Emeralds from this area are generally cut from longer, more slightly bluish-green crystals and have a remarkable brillance and purity. The unique geology of Colombia gives rise to the most exceptional emeralds in the world.



EMERALD FORMATION IN CALCITE VEINS



Robert pointing at the calcite in the Colombian Muzo mine.

"For the most part, the emerald crystals are found with the calcite along these fractures in the shale and limestone. The shale and limestone are often discolored, with a yellowish-gray appearance, in the area of the mineralized calcite veins. The emerald crystals usually occur attached to the wall of the fracture and are surrounded by calcite, or they may be embedded within the calcite itself. Field observations indicate that the best-quality emeralds seem to be found in the narrower veins."

- Gemological Institute of America

COLOMBIAN EMERALDS FROM THE MINES OF CHIVOR



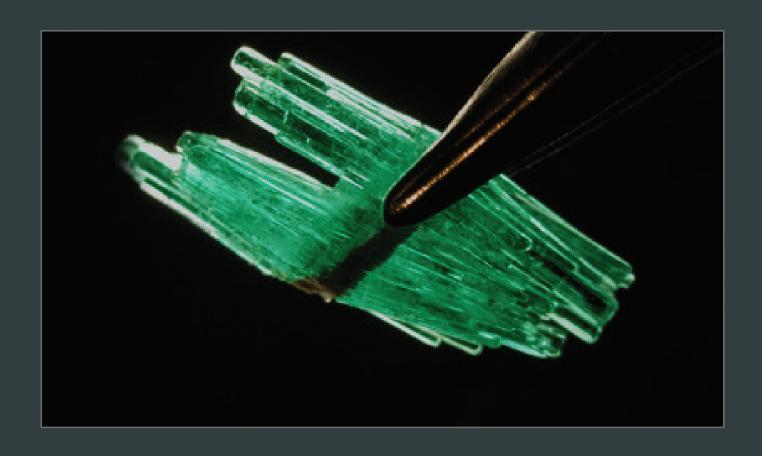
"Miners in Colombia have unearthed the world's most sought after and valuable of the green gemstones. The characteristic rich greens unique to a Colombian emerald are historically appreciated more than any other locality on Earth."

- Gemological Institute of America



Chivor emeralds are famous for their bluish undertones, high clarity, and lighter saturation.

CHIVOR ROUGH EMERALDS



"The Chivor district, located about 5 km northeast of Bogotá in the Almeida township of Boyaca, is part of the exceedingly rugged country where the Rio Rucio and Rio Sinai join to form the Rio Guavio. Chivor was the first operating emerald mine discovered by the Spaniards in their conquest of the New World. Gonzalo imenez de uesada saw the first sign of emeralds in Colombia at Turmeque, Boyaca, in 153. The sedimentary rock units at Chivor are somewhat different from those described for Muzo. At Chivor, such units are almost entirely shales and argillites, with minor limestone and sandstone."

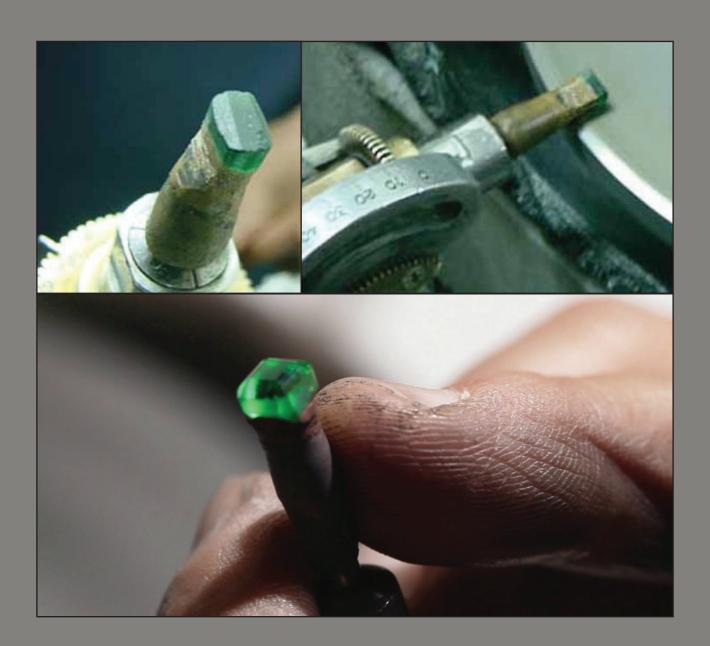
- Gemological Institute of America

CHIVOR FACETED EMERALDS



"When grading an emerald, the overall cutting of the gem is summed up by estimating the areas of brilliance, windowing, and extinction. The three percentages added together should equal one hundred percent."

- Ronald Ringsrud



FROM THE CHIVOR MINE OF COLOMBIA

TO A CREATED TREASURE





GEMSTONE REPORT

EDELSTEINBERICHT RAPPORT DE PIERRE PRÉCIEUSE

GRS2019-010361 4th January 2019

One faceted gemstone Object Identification Natural Emerald

Date

Weight



12.96 ct

16.52 x 11.09 x 9.26 (mm) Dimensions

Cut step (4) Shape octagonal Color pastel green CE(O): None

Dieser Eddantisbericht wird nur unter der Vertessestrang abgegiben, dass die wichtigen Informationen auf de Rückele als Vertragebetrachtel mit der GRS-Gerneceunk Feristelt AG akurptiert werden sind. Spezielle Beauktung ist der Handlabung nur der Dektantism von Behandlungen on schreiden.

Origin

Genmological testing revealed characteristics corresponding to those of a natural emerald from:

Colombia



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Code Use See Help INTERNE

|(√|GemLab

ORIGIN REPORT

Report Details

No. 24011901129002 Date 24th January 2019 Item

One faceted gernstone 12.96 ct

Weight Dimensions 16.50 x 11.04 x 9.25 (mm)

Cut Step/Step Shape Octagonal Color Green

Identification

Species Natural Beryl

Variety Emerald

Comment No indications of clarity enhancement

Advanced Instruments

UV/VIS/NIR Raman

☑ Microscope ☑ FTIR ☑ EDXRF LA-ICP-MS



Following gemological testing, the characteristics of this gemstone wer found to be consistent with those of natural emeralds from

Colombia



D5thurs DR. DIETMAR SCHWARZ







COLOMBIAN EMERALDS FROM THE MINES OF MUZO



Muzo emeralds have a distinguishable intense green color, with a yellow undertone. They are known for their deep saturation of color.



"Muzo emeralds meet indisputable quality criteria such as color, purity, and weight. In their rough, they can weigh up to ,500 carats or more. Most importantly though, the Muzo emerald has a soul, a unique dimension, and a secret alchemy that sparkles with life. The emerald awakens the senses, arouses passion, and sets hearts racing."

-MUZO Company

MUZO FACETED EMERALDS



A Unique 6.90ct Muzo Emerald

"A Muzo emerald is characterized by the nearly perfect hexagonal geometry of the rough stone, its dimensions, color, a powerful and intense green, illuminated by a ray of yellow. Thanks to its cut, the multitude of facets sculpted by a gem cutter, the gemstone reveals a dazzling radiance that captivates the gaze, shimmering and flickering from within a never-ending dance of light."

-MUZO Company



JA GUBELIN GEMMOTOGICAL REPORT Report Samskye 1805 - 170 Des Constants Apriles No. a Jose Agents Leaves Bring The Contract Sur-Weight and the Constraint disable with the energy of a charged left. Named and the growing of a recommendation and Stripe Stripe or 1°41 91 - 111 Measurements To 20 miles On a Tempor Transparings One-group Santo Carlo (#) State of the Con-

FROM THE MUZO MINE OF COLOMBIA TO A CREATED TREASURE

A Magnificent 24.25ct Muzo Emerald Pendant



"The Colombian gem-cutters in the Bogotá workshops have an eye for assessing rough emeralds. They observe the crystals in minute detail to map all its characteristics and plot exactly where the stone will be carved, noting the distribution of color and the presence of inclusions."

-MUZO Company



A 15.54ct Cushion Vivid Green Muzo Emerald Ring "Each Muzo emerald is crafted by the gem cutters to highlight its unique personality. It's facets are skillfully sculpted by the Muzo master gem cutters to accentuate depth of color and purity of the emeralds."

-MUZO Company



COLOMBIAN EMERALDS FROM THE MINES OF CUNAS



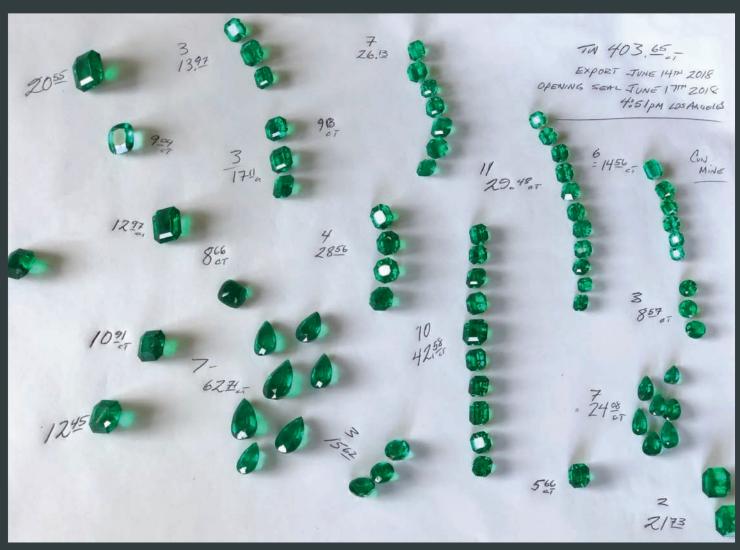
"In the western mountains of Boyaca, Colombia, through a process that has taken millions of years, nature has created a masterpiece in the mines of Cunas. There, the 'Magnificent Green' emeralds, the most beautiful stones of the country are born.

The name 'Magnificent Green,' given to the exact tone of the Cunas emeralds, is inspired by the Magnificus bird. This type of bird from paradise, originally Papua New Guinea, exhibits this iridescent green in its chest when courting the female with a unique dance."

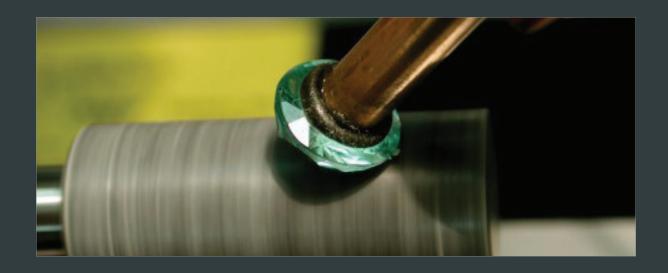
- GemResearch Swisslab

The local miners describe Cunas emeralds as being a brilliant open crystal with an amazing illumination.

CUNAS PRODUCTION & SORTING



RP Studio - 2019 Production



When cutting the Cunas emerald, it transforms into a vibrant green fire.

Once the emerald is completed by a master cutter, the play of light on the facets is luminescent.

CUNAS FACETED EMERALDS





"The cutter must consider the rough's depth of color, durability, and inclusions when making cutting decisions. Mistakes cause weight loss, which greatly reduces the value of a potentially valuable gem."

-Gemological Institute of America

FROM THE CUNAS MINE OF COLOMBIA TO A CREATED TREASURE



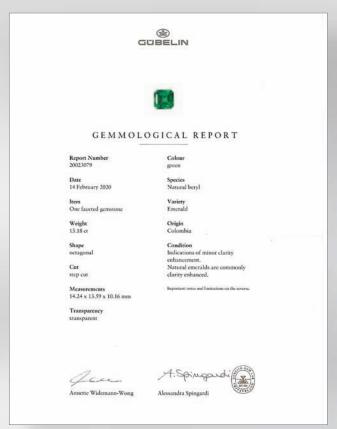


"Rough emeralds are transported by a special service to the Cunas Office in the Emerald Trade Center. The material is selected and classified in the raw and then sent to be cut."

-Cunas Emeralds Company



An Exceptional 13.18ct Gem Cunas Emerald This stunning Cunas emerald illuminates its famous vibrant fire-green.





A Perfectly Matched 17.39ct tw Cunas Earrings





GEMSTONE REPORT

EDELSTEINBERICHT RAPPORT DE PIERRE PRÉCIEUSE

GRS2011-093243

Date 12th September 2011 Object One faceted gemstone

Identification Natural Emerald

No.

Origin

Gemmological testing revealed characteristics corresponding to those of a natural emerald from:

Colombia





Weight 8.52 ct

Dimensions 12.90 x 12.29 x 8.99 (mm)

Cut brilliant/faceted Shape cushion Color green

Comment CE(O): Insignificant Peretti FGG FGA

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GEMSTONE REPORT

EDELSTEINBERICHT RAPPORT DE PIERRE PRÉCIEUSE

GRS2012-052856 No. Date 25th May 2012 Object One faceted gemstone

Identification Natural Emerald

Origin

Genmological testing revealed characteristics corresponding to those of a natural emerald from:

Colombia



8.87 ct

Dimensions 12.98 x 12.13 x 9.76 (mm)

Cut brilliant/faceted Shape cushion Color green

Weight

Comment CE(O): Minor



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INTERNET

COLOMBIAN EMERALDS FROM THE MINES OF LA PITA

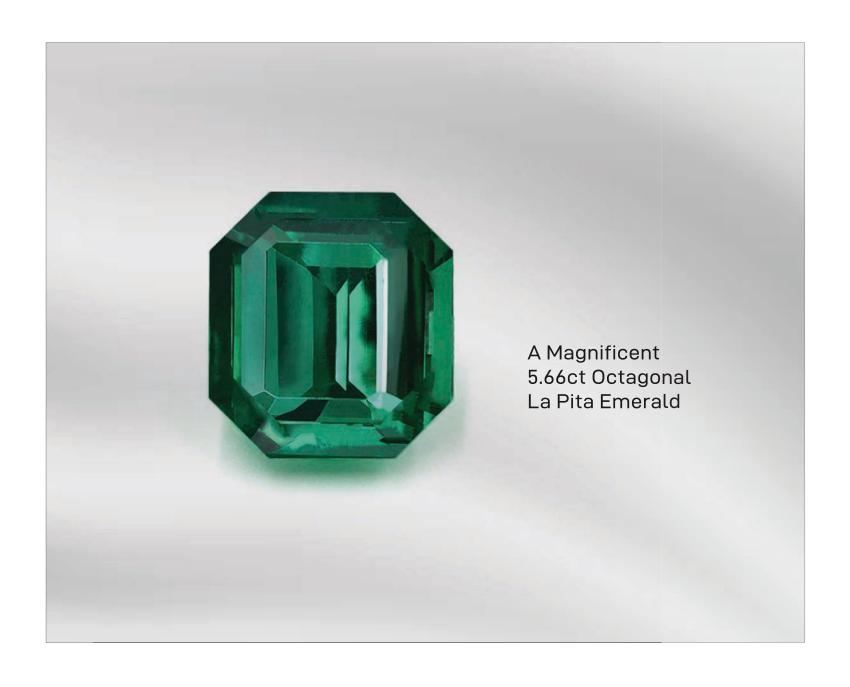


"La Pita, another well-known emerald mining locality, is home to Itoco, a mythical mountain peak named for the son of queen Fura and her husband Tena. Legend says that tears shed in the tragic love story of Fura and Tena turned into beautiful green stones that lay buried underground."

-Gemological Institute of America

La Pita has a similar color to the "Muzo Green" with fine crystal-like properties and a yellow undertone.

LA PITA FACETED EMERALDS





Robert in Bogotá learning from the master cutter, Adolfo Argotty, considered the best emerald cutter in the world.



FROM THE LA PITA MINE OF COLOMBIA

TO A CREATED TREASURE

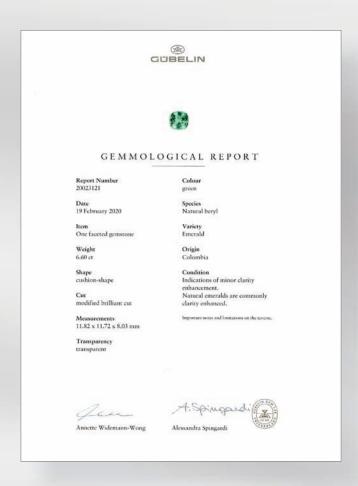




C. Dunaigre Consulting certifies this emerald as vivid green and imperial green.



A Gem 6.61ct La Pita Emerald Displaying Muzo Green This amazing, open crystal emerald from the La Pita Mine represents the Muzo Green color.



COLOMBIAN EMERALDS FROM THE MINES OF COSCUEZ



"The world's richest emerald-bearing region straddles the easternmost prong, known as the Cordillera Oriental. The Muzo district lies due north of Bogotá, the capital of Colombia, in the northern part of this emerald-bearing zone. The Muzo and Coscuez mines lie within 10 km of each other in the state of Boyaca."

-Gemological Institute of America

The Coscuez mine is the second largest producer of emeralds in Colombia. Its color and saturation may vary, but it is similar to the Muzo Green, which has a yellow undertone and deep saturation.

COSCUEZ FACETED EMERALDS



Smarag Emeral

RAPPORT DE PIERRE PRÉCIEUSE - EDELSTEINBERICHT GEMSTONE REPORT

CDC 1209093 29 September 2012 One faceted gemstone

Object description On

Date

 Weight
 6.71 ct

 Dimensions
 17.74 x 9.26 x 8.27 mm

Colour Vivid green
Shape/style Pear-shape/mod. brilliant cut
Transparency Transparent

Transparency Transparent

Quality Grade Very good

Identification EMERALD (Natural Beryl)

consistent with those of emeralds from: Colombia

ments Indications of minor clarity enhancement. *

* Natural emeralds are commonly clarity enhanced







C. Dunaigre Consulting GmbH Christian Dunaigre AG, DUG

IDENTIFICATION - IDENTIFIKATION - IDENTIFICATION

This Gernature identification Report is a professional and independent apinion based on the gen properties of the generative at the fine of the examination. The reverse side is in integral part of the

C. Dunage Consisting GebH Friederschause 41Ch1-2004 luzers/Swizzeland cdconsiling@cdvasge.com



7/3/2019	
IGI Report Number	GT13423002
Species	NATURAL BERY
Variety	NATURAL EMERALD
Shape and Cutting	PEAR MODIFIED BRILLIAN
Weight	6.70 CARAT
Measurements	17.77 x 9.29 x 8.29 MM
Color and Transparency	GREEN, TRANSPAREN
REFRACTOMETER - POLAR	ISCOPE:
Refractive Index	1.57-1.5
Birefrinence	
Optic Character	UNIAXIA
Optic Sign	NEGATIV
Characteristic Imperfection	

Comments: Country of origin based on current gemological information. Indications of moderate clarity enhancement with resin.

COLORED STONE

GT13423002



SCIENTIFIC LABORATORY FOR THE IDENTIFICATION AND GRADING OF DIAMONDS AND COLORED STONES



PHOTO APPROX.





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"In the 1990's, tunneling became the only means of emerald mining. Open pit emerald mining with bulldozers was outlawed out of respect for the environment. Now in the new millennium all Colombian emerald mines follow sustainable guidelines. Corporate responsibility has also given rise to greater respect for every worker. They have been given a salary and benefits that have had a very positive effect on the entire region."

-Ronald Ringsrud



A 6.47ct Step-Cut Coscuez Emerald





Gemstone Report



 No.
 12040051

 Date
 17 April 2012

 Item
 One faceted gemstone

Weight 6.47 ct
Shape octagonal
Cut step cut

Measurements 11.42 x 10.83 x 7.91 mm
Transparency transparent

Cofour green
Species Natural beryl
Variety Emerald

Origin Germological testing revealed characteristics consistent with those of

emeralds originating from:

Colombia

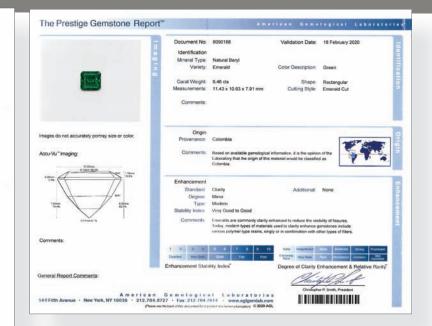
Condition Indications of minor clarity enhancement.

Natural emeralds are commonly clarity enhanced. Important notes and limitations on the reverse.

A. Spingardi

Alessandra Spingardi

Sonia Cherchi



FROM THE COSCUEZ MINE OF COLOMBIA TO A CREATED TREASURE





"Emerald's color is unlike that of any other green object or gem: it is a unique mixture of wavelengths. The perfect geological genesis of a Colombian emerald creates a red fluorescence that changes the green to a 'vibrant emerald green.' Occasionally, an array of microscopic inclusions creates an alluring and softening effect in the color of a Colombian emerald. Located in the center of the visible spectrum, green is cherished in many cultures of the world as a harmonizing and balancing color; the color of the heart."

We are grateful for the opportunity to be a part of the treasure hunt for the finest emeralds in the world. It is our mission to be of service to the many in need. In the United States, we build shelters for battered women and their children. Our emerald treasures not only serve our charities, but they also serve the needs of many in Colombia. Resources are given back to the Bogatá Orphanage and to the recently built Muzo School. In addition, we are honored to be part of Colombia's ethical gem trading and the enforcement of safe mining conditions for workers.



Robert with the children of the Bogotá Orphanage.



The newly built school in Muzo, Colombia.