

AU NATUREL

The Lotus Gold™ Gemstone Report

The vast majority of gems traded today have been enhanced to improve their appearance. On rare occasions, precious stones are found which require nothing to reveal their beauty, save for ordinary cutting and polishing. These gems are entirely *au naturel*. The Lotus Gold report is in honor of, and exclusively reserved for, these exquisitely rare, completely unenhanced gems.

13.35_{ct}

Natural Ruby
Myanmar (Burma)

Report N° SAMPLE
4 January 2016



the world's only lab exclusively devoted to ruby, sapphire & spinel

LABORATORY FINDINGS

4 January 2016

01

Item

One unmounted stone

02

Weight

13.35 carats

03

Dimensions

10.34 x 8.45 x 5.97 mm

04

Transparency

Transparent

05

Color

Daylight Hue **Red**

Saturation **Vivid**

Tone **Medium-Deep**

06

Shape

Antique Cushion

07

Cutting Style

Faceted

Crown **Brilliant**

Pavilion **Step**

08

Enhancements

No indications of heating/
treatment

This report is a professional opinion based on the results of a series of scientific tests, coupled with the combined decades of experience of Lotus gemologists.

NATURAL RUBY

Report No. SAMPLE

Identity → **Natural Ruby**

Origin **Myanmar (Burma)**

Color Type **Pigeon's Blood**
The intense crimson color of this gem earns it the Lotus "Pigeon's Blood" distinction.



Verify this report by referencing Report No. SAMPLE with PIN No. SAMPLE at [LotusGemology.com](https://www.LotusGemology.com).

ORIGIN MYANMAR

Land of Pigeon's Blood Rubies



WHILE THE BURMESE refer to Myanmar as the “Golden Land,” for the rest of the world, this realm is cloaked in an entirely different color – ruby red. For when it comes to the crimson stone, Myanmar’s Mogok Stone Tract reigns supreme.

Since time immemorial, the world’s finest rubies have been clawed, scraped and sieved from the gravels, muds, rocks and caverns of Mogok’s jungled valleys and hills.

Lying approximately 650 km north of Yangon (Rangoon), Mogok is an area steeped in legend. As one writer put it more than a century ago:

Far away in a remote corner of the Earth is a town of mushroom growth, called Mogok.... It has but one industry, the recovery of rubies from mud and sand. You may be ever so hungry or thirsty, the first things offered or mentioned to you are rubies. No matter what business may have brought you to Mogok, the natives all assume you are there for rubies – rubies, nothing but rubies.... It is said that a king would be ruling at Mandalay today if it had not been for rubies...

Mogok is not Burma’s only ruby locality. Fine crimson gems have also been found at Mong Hsu and Nanyaseik.

Valley of Rubies. Kyatpyin and Pingu Taung in Burma’s Mogok Stone Tract.



ON RUBY

crimson and more...

*They brought me rubies from the mine, and held them to the sun;
I said they're drops of frozen wine, from Eden's vats that run.*

—Ralph Waldo Emerson

THROUGHOUT MOST of recorded history, ruby has been the world's most valuable gem. In Sanskrit, it is termed *ratnaraj*, the King of Gems, and is associated with the Sun. To this day, Burmese goldsmiths may refuse to mount a ruby anywhere except in the center, for all other heavenly bodies should be subservient to the Sun.

Ruby is the *carbuncle* of the ancients, a term derived from the glowing embers of a fire. Indeed, the King of Ceylon was said to possess a ruby that shone so brightly that when he brought it out at night, it would light up the entire palace.

Like the snowflake and the rainbow, ruby's red glow is a glorious accident of nature. Blessed with a red body color, ruby also takes bits of visible blue and green light and blasts them back with a laser-like red emission. Indeed, the first lasers made use of this very property.

Today rubies come from several other countries in addition to Burma. These include Thailand, Cambodia, Vietnam, Sri Lanka, Afghanistan, Tajikistan, Madagascar, Mozambique, Tanzania and Kenya.

Many of the most famous "rubies" in royal collections are actually red spinels, a gem often found in the same mines. Spinel is extremely valuable in their own right.

The Burmese term for ruby is *padamya* ('plenty of mercury'). Traditionally, the Burmese have referred to the finest reds as *ko-twe* or *pigeon's blood*. Some have compared this color to the center of a pigeon's eye, while others define it as that of the first few drops of blood from the nose of a freshly slain pigeon. However one chooses to define it, the color of the finest rubies is akin to a stoplight, a glowing red unequalled elsewhere in the world of gemstones.

The legendary pigeon's-blood red is more a color of the mind than the material world. As one Burmese trader expressed it: "Asking to see the pigeon's blood is like asking to see the face of God."

Red is fire, passion – like blood – the essence of life. Ruby represents the reddest of reds, the most passionate of precious stones, the very symbol of desire. Indeed, according to the Bible, it is only wisdom that is of greater value.



Rubies from the Mine. Rough ruby from Mogok.

ON COLOR

The sense of sight is indeed the highest bodily privilege, the purest physical pleasure, which man has derived from his creator.

– Sydney Smith

Perhaps no aspect of a precious stone's beauty is more subjective than that of color, which is why novices commonly ask: "What color is best." The correct answer is quite simple: "The best color is the one you find most attractive."

This is not what some want to hear. They yearn for a plot charting their way to heaven (à la diamond's D, E, F...), or a simple statement that "the color of this stone is better than that one" while not understanding that such a judgment is entirely arbitrary.



Painting with light. Instead of asking what color I am, why not ask if you find my palette pleasing?

At Lotus, we appreciate the science of color, and willingly use it. But the notion that a faceted gem possesses a single "color" can be disproved by simple observation.

Faceted stones present a three-dimensional mosaic made up of myriad colors, some bright, some dark, some intense and others dull. Each of these colors changes the moment the eye, gem or light moves. Thus to truly describe the appearance of a faceted gem, one would have to describe hundreds of colors, depending on the light source, viewing angle, background and even the size of the viewer's head (which blocks some light). In essence, gems are like miniature paintings with light as the brush on a canvas that formed millions of years before.

The colors of gems are better described in general terms for the simple reason that increasing specificity implies some higher knowledge of what an individual finds attractive and despite our best efforts, we are still not mind readers. Similar to the appreciation of fine art, one cannot exclude the feelings, experiences and sensibilities of the judge.

As a result, Lotus color descriptions are of a dual nature, expressing both scientific rigor (hue position, tone, saturation) and artistic flair. But we do not attempt to suggest one color is more attractive than another. That is a judgment that only the buyer can and should make.

CLARIFYING CLARITY

CLARITY REPRESENTS one of the most difficult and simultaneously simple concepts involved with the assessment of precious stones. Gemology books will tell you clarity is judged by the size, number, color, position and nature of inclusions. Obviously there are an infinite number of possibilities.

Allow us to simplify. Inclusions that weaken a gem are the least desirable. This includes cleavages, fissures, cracks – any form of break that might expand with time. Ruby and sapphire are quite tough, so a shallow break is not so bad, but one should be careful with those that penetrate deeply into a gem.

And the rest? Let's reduce them to a single word – Distraction. The more distracting an inclusion, the more it hurts a gem. Imagine a picture of a smiling man or woman. A missing tooth at the back of the mouth is no problem; a missing front lower tooth is less desirable. The worst would be a missing top front tooth.

Gems are no different. When you evaluate a prospective purchase for clarity, concentrate on the distraction level. You can live with inclusions that are difficult to see. Those that are instantly obvious will probably fail your distraction test.

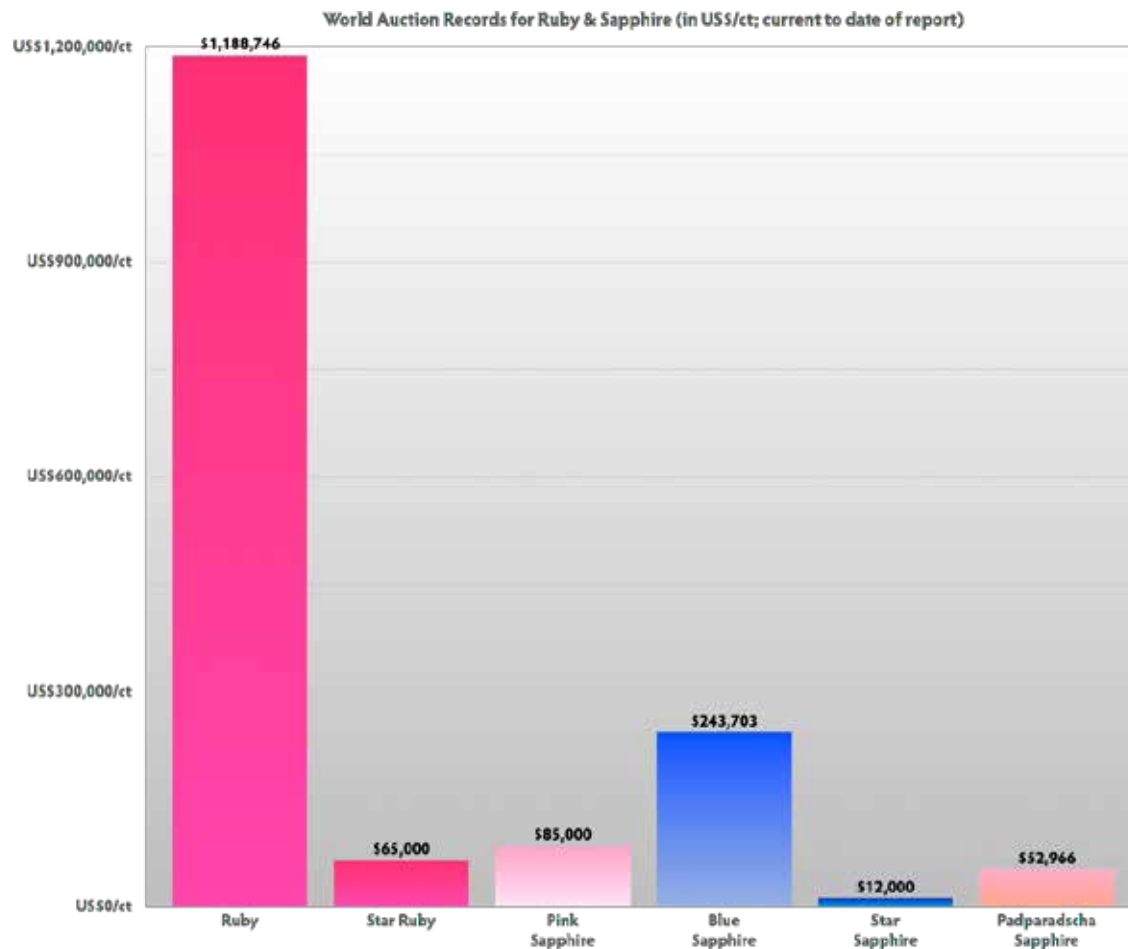
Not only did the gods bless ruby with an inborn glow to match its scarlet skin, but such was their benevolence that they also gave it silk – oriented needles of rutile – gossamer threads that banish the darkness besmirching the rest of the mortal gem world.

Silk's beneficial effects can be seen in rubies and sapphires from a number of locales. Note that this is a direct contradiction of the laws of diamond grading – here we have inclusions contributing in a major way to the beauty of a gem.

One final note on clarity. Unlike diamonds, the clarity of rubies is always judged with the naked eye.

ON PRICES

auction records



THOUSANDS OF TIMES more rare than diamond, ruby and sapphire are among the world's most expensive gems. But like all gem materials, they are found in a number of qualities and across a large range of prices.

Historically, sapphire prices are about a quarter the price of ruby, but this fluctuates from time to time. While even a five-carat ruby of quality is extraordinarily rare, fine sapphires of more than 100 carats are known.

The chart shown here shows world auction record prices for both ruby and sapphire. Note that these do not necessarily represent the highest prices paid; the finest gems often trade hands in private sales at prices above the auction market. We reference them because the auction market is an open reflection of the world gem market. Unlike real estate, gems can and do travel, and therefore have a worldwide value. While auction prices do not always accurately reflect the market (due to bidding wars, etc.), they are public, and thus useful for those wishing to better understand prices.

caring for your treasure

GEMS ARE AMONG THE MOST durable of nature's creations, but still require care to retain their beauty. Caring for your jewelry is a matter of common sense and simple precaution:

- Always remove your jewelry when engaging in activities that risk impact or exposure to chemicals or heat such as sports or housework.
- Always put jewelry on after using lotions, cosmetics, hair spray or perfumes, not before.
- Never remove your jewelry by pulling on the gems.
- The best way to store jewelry is in the compartments of a jewelry box or in pouches. Store each piece of jewelry separately and necklaces flat so that harder stones don't scratch softer ones. Almost every gem is harder than the metal in which it is set. Gems can scratch one another or the finish on your jewelry if stored carelessly.
- Carefully wipe jewelry with a soft lint-free cloth after wearing to remove oils and salts.
- Clean your jewelry on occasion with a cleaning solution or mechanical cleaner suitable for the gem; use a dish rather than the sink, for if a gem accidentally falls out of the setting, down the drain it goes. When in doubt, just use warm soapy water and a soft toothbrush.

When it comes to caring for your ruby and sapphire jewelry, a bit of warm soapy water and a soft toothbrush is usually all that is needed. After cleaning, simply wipe it dry with a lint-free cloth.

- Think twice before putting gems in an ultrasonic cleaner. Diamonds and rubies and sapphires are generally fine, but other gems may not be. When in doubt, leave it out.
- Opaque gems such as lapis lazuli, turquoise and malachite are porous and may absorb chemicals and soap, discoloring them. Thus they require special care. Never use ultrasonic cleaners, ammonia or chemical solutions. These gem materials should just be gently wiped clean with a moist cloth.
- Opals also require special care. Never use an ultrasonic, never use ammonia, and avoid heat and strong light that can dry out the water in opals.
- Due to their organic nature, gems like pearls, coral and amber are both soft and porous. Thus they should be simply wiped clean with a moist cloth. Be careful about chemicals in hairspray, cosmetics, or perfume; over time they can damage pearls in particular.
- Stones that have a Mohs hardness of 7 or less are subject to scratching; harder stones are less susceptible, but still subject to chipping and fracture.



ABOUT LOTUS

our philosophy

LOTUS GEMOLOGY BEGINS WITH a simple idea – beauty is the principle source of attraction for precious stones. Thus it should also be the major focus of gemology. In other words, the gem is the most important part of GEM•ology.

Founded by gemologists Richard Hughes and Wimon Manorotkul, Lotus operates from a base of over seventy years of collective experience in the study, purchase, sale and appreciation of precious stones. Over time, we have come to realize that gemology is not simply counting atoms. Science is a method of organizing knowledge such that it can be rationally explained and reliably tested. And yet today's science cannot accurately explain or test certain phenomena. Which rainbow is the prettiest, what painting speaks to you, which person do you find most attractive? These are personal choices that can never be reduced to a simple set of measurements, anymore than the beauty of a sunset can be expressed by formula.

Rest assured, we are not Luddites. We not only appreciate science, but also use it daily. At the same time, we recognize that many parts of the human experience extend into realms beyond the ability of science explain or test. Thus the gemology at Lotus is wide, including not just science, but weaves into the mix history, culture, art and travel. We do this in the belief that these factors play important roles in how humans perceive desirability and value.

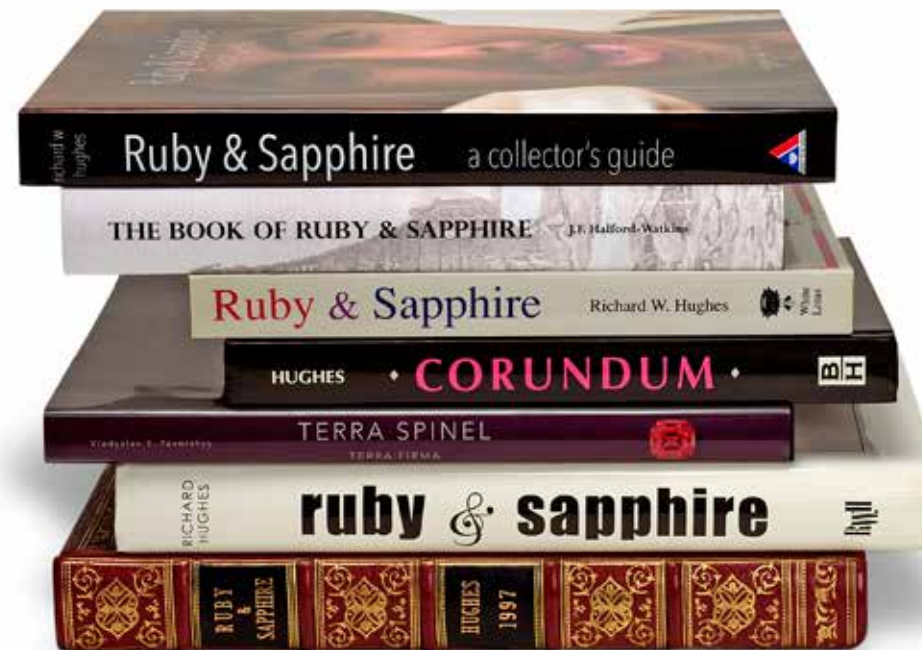
Precious stones are among the most compelling examples of Mother Nature's artistic genius. Our lives have been enriched beyond measure by our involvement with these gifts of nature and we believe if we characterize them with the appropriate reverence and care, we can open this magical world to others. This is our goal. The translation of the intangibles of rarity and aesthetic beauty is our strength.

Finally, like a small French restaurant, we believe that crafting a fine meal takes time and individual care; thus our seating is limited. But we are confident the result will be something special, just like these precious treasures we have the pleasure of working with.

SUBSTANCE

the lotus oeuvre

With over 70 years of collective experience, the Lotus team has authored over 150 papers on various aspects of gemology. We did not simply write the book on ruby, sapphire and spinel, we wrote the books, a collective body of work unsurpassed on the subject. In addition, we have designed, authored and edited other books on precious stones.



TERMS OF REFERENCE

Important Notes

limitations

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- Each report contains a description of the article tested based upon tests and techniques used by Lotus at the time of examination. Gemstones can be enhanced at any time after leaving our premises. If there are doubts about an item's current condition, please submit it for rechecking.

origins

UPON REQUEST, and where sufficient evidence permits, Lotus may issue an opinion regarding the geographic origin of the gem tested. Origin opinions are given solely at the discretion of Lotus. Clients should be aware that differences in opinion between one lab and another might arise. This is because the geologic conditions in one place sometimes overlap with similar conditions in other localities.

Even in laboratories possessing millions of dollars of equipment, the most important evidence for origin determination is collected via the simple gemological microscope. It is the experience of the gemologist with the microscope that largely determines the accuracy of origin reports.

In short, origin determination is not an exact science, and depends greatly on the experience of the individual gemologists doing the testing. The gemologists at Lotus have been involved with ruby and sapphire for many decades, including visits to almost every major deposit on the planet.

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