

# PRECIOUS GEMS OF THE SILK ROUTES

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## ORIGIN

Linking the East of China in X'ian to the Western Regions, the 'Silk Road' as we know it today came into existence under Emperor Wu of the Han Dynasty. Hoping to establish an alliance with the Yuezhi in 139 BCE, Emperor Wu (r. 140-87BC) sent his imperial envoy Zhang Qian to the West. The famous explorer and diplomat's writings are thus the first written testimony available. During his explorations, Zhang Qian (circa 112BC) found out that Chinese items were already traded in Central Asia.

The term 'Silk Road', invented in 1877 by geographer Baron Ferdinand von Richthofen who worked in China from 1868 to 1872, is very recent. While we can distinguish three main roads, two overland and one sea route, the 'Silk Road' is in fact composed of a myriad of routes and hazardous trails linking China, as well as Japan and Korea further East, to India, Parthia and Rome. Therefore the term 'Silk Road' lacks precision and 'Silk Routes' seems to be more appropriate... although "'Silk' is even more misleading than Road, since it was only one among many of the trade goods". (Hansen, 2012)

Stretching over nearly 6,500kms, this vibrant and complex network of roads reached its apogee during the Tang dynasty and the period comprised between 200BC and 1000AD is considered the most eloquent time of the 'Silk Road'.

This period of splendor could emerge thanks to the well-established and powerful Empires of the time. In the East, China of the Han and Tang dynasties. Her neighbors the Kushan and later, at its zenith from approximately 319 to 550AD, the Gupta Empire. Further West the prosperous Roman World followed by the sumptuous Byzantine Empire.



Silk Routes – Credit: Wikimedia Commons

The present article focuses on the glorious period of the Silk Routes, from 200BC to 1000AD.

While a large amount of prestigious items such as gold, glassware, asbestos, ... and precious gems, including agate, Baltic amber, coral, diamond, emeralds, garnet, ivory, pearls, turquoise,... to name but a few were traded along the various routes, we will center our attention on a selection of gems that appear to be most notorious from an economic, as well as cultural and artistical point of view:

Lapis lazuli, jade, coral, pearl, sapphire, ruby and spinel.



Caravanserai. Lithographie Eugène Flandin, 1840.  
Voyages en Perse, avec Flandin. Ed. Gide et Baudry, 1851. Source: Wikimedia

Originated from the Persian words *kārvān* (a group of travelers) and *sara* (palace, an enclosed building), the Turkish suffix *-yi* has been added. Found across Silk Road countries from Turkey to China, *Caravanserais* were large guesthouses or hostels.

Designed to welcome travelling merchants with their caravans and offer them a place to rest after a day of travel, they were also platforms for meeting and trading, and for exchanging cultures and ideas.

## LAPIS LAZULI , PRECURSOR OF THE SILK ROAD GEMS

The “sappir spotted with gold”, as it will be referred to by Ancient Greek philosopher Theophrastus (371-287BC) in his treatise ‘On Stones’, was in fact traded by the Aryans from the mines of Badakhshan – North-East of Afghanistan - to Eastern regions, as far as Mesopotamia and Egypt as early as the second half of the fourth millennium BC.(Sarianidi, 1971) Nestled in the center of the Hindu-Kush Mountains, the historic mines of Sar-E-Sang are the oldest source of lapis lazuli in the world and have historically delivered the finest quality of lapis. They were also the only source of lapis in the ancient world.(Bancroft, 1984)

The earliest known use of the stone was as beads found at Neolithic burials in Mehrgarh (7000-3200BC) in the West of Indus Valley - present day Pakistan. Praised by the ancient civilizations for its dazzling and intense color, the use of lapis lazuli as a gem and as an object of ritual is supremely unveiled by the treasures of the royal Sumerian tombs of Ur (2500BC), located near the Euphrates River in lower Iraq, from which were excavated in abundance luxurious objects, statuettes, beads, delicate bowls, cylinders... made of lapis lazuli, all executed with great finesse.

Oriental civilizations, such as the Hebrews, the Babylonians, the Akadians and the Assyrians favored the azure gem for ornamentation in their jewelry and seals. Lapis is also mentioned several times in the Mesopotamian poem from Babylonia (17<sup>th</sup>-18<sup>th</sup> century BC), one of the oldest known work of literature, ‘The Epic of Gilgamesh’.

From Mesopotamia, lapis continued its journey to Egypt and to the Greco-Roman World.

At the turn of our era, the Periplus of the Erythraean Sea recorded the ports and markets visited by Roman merchants, as well as the goods they traded. Amongst other imported items, are listed “costus (a spice) from Kashmir, turquoise from the Hindu-Kush Valley, and lapis lazuli from Badakhshan”. There are many references to lapis lazuli in the Greco-Roman world under the word “sapphire”. However since the description had little to do with the blue corundum, historians agree that these references most likely apply to lapis lazuli. Pliny the Elder described the gem as a “fragment of the starry firmament” and the ancient Romans believed that lapis was a powerful aphrodisiac.

Used in the funeral mask of Tutankhamun for the hair, eyebrows and eyelashes of the Pharaoh, the starry blue gem was widely used by the Ancient Egyptians as an ornament and amulet, especially scarab, prized for its eye-opening qualities and associated with the wisdom of the “all-seeing” Eye of Horus. The Egyptian Book of the Dead describes a powerful magical amulet in the form of a carved eye made of ‘*sapir*’ (Hebrew).

The connection between eyes and the blue gemstone was very strong : ancient Egyptians used it into powder as an eye wash to help patients see more clearly, while Queen Cleopatra and Egyptian ladies treasured its delicate vibrant-hue powder as an eyeshadow.



Naquada I, Egypt female figure circa 3700BC. British Museum  
Bone with lapis lazuli inlay from Badakhshan. Credit: Jon Bodsworth, Wikimedia

Introduced in Europe under the name *ultramarinus*, literally “beyond the sea” - later *ultramarine* - as early as the fifth century, the use of ground lapis as a pigment developed throughout the centuries. Borrowed from the Arab *lazarward*, which originates from the Persian *lajevard*, the word *luzurium* appeared during the sixth century, and would transform into *lazul*, then *azur*. (Wyart et al., 1981)

As testify by the 6<sup>th</sup> century Sogdian and Buddhist frescoes, and the Byzantine churches of the 10<sup>th</sup> century, the precious natural ultramarine pigment was highly favored by artists in their illuminations. (Colomban, 2005) Often reserved for religious images in paintings and objects, such as icons, lapis lazuli remained the most valuable and widely-used blue pigment throughout the Middle Ages to the Renaissance, until the discovery of an artificial ultramarine substitute by French industrial chemist J.B. Guimet in 1826.



Golden funeral mask of King Tutankhamun.  
Egyptarchiv Cairo Museum. Credit: Jon Bodsworth, Wikimedia



## JADE

"Jade is precious not because it is rare, but because the quality of jade corresponds to virtue."

Confucius

Throughout the Millennia, Chinese have attributed to jade divine and imperial characteristics. A symbol of purity and moral integrity, prized for its durability and magical qualities, jade has seduced scholars, artists, and has been for centuries associated with the Son of Heaven.

Most revered since Ancient Times, the gem has been carved as early as the Neolithic period when it was used for sacrificial and ritual objects, especially in the sophisticated Hongshan and Liangzhu cultures, who lived in today Lianong province and Inner Mongolia. Starting point of the three main Silk Roads, which in fact for Chinese was - still is - the "Jade Road", the region of Xinjiang was the main historic source of jade in ancient times. As early as the mid-Shang dynasty (ca. 1600-1050BC) and under the Zhou (ca. 1046-256BC), the celestial gem will be uncovered in the rivers of the regions of Khotan and Yarkand.



Disk decorated with birds - Shandong Jade Longshan Culture (2500-2000 BCE)  
Musée Cernuschi, Paris – Photo Sandrine Martin

The character 玉 (Yu), literally meaning 'the most beautiful stone' is used by Chinese to describe jade as well as other hard materials, such as chalcedony and marble (Krzemnicki, 2012). During thousands of years, until the rather late introduction of jadeite imported to China from Burma in the 18<sup>th</sup> century, the gem known as "yu" (jade) has thus referred to other hard materials, mostly nephrite.

For millennia, the acknowledged classic source of nephrite for both the Chinese and Western Asian worlds was Khotan, near the foot of the Kunlun mountains, on the southwest side of the Tarim Basin. (Keene, 2004)

A number of objects discovered in Egypt have been reported as jade-nephrite. Incised with figures of the King and of the God Min, the double-cartouche signet ring of Tutankhamun, one of the fifteen rings found on the mummy, "is almost certainly nephrite", as indicated by British Egyptologist Alfred Lucas, adding that the fact "that at the end of the Eighteenth Dynasty a small piece of this material should have reached Egypt from Asia would not be surprising." (Keene, 2004)

The gem was often used for tributes during Han dynasty and Ancient Chinese historical literary works of the period record that Emperor Han Wu-Ti had received gifts made of jade, including interlocking rings of white jade from northwest India and a jade crystal bowl from the state of Gandhara.



Jade Huang pendants. Han dynasty 2<sup>nd</sup> century BC. Musée Guimet Paris  
Credit: Vassil, Wikimedia

Reports of jade artefacts dating back from the turn of the Common Era were excavated from ancient India site of Taxila (today Punjab, Pakistan) and from Western Asia, including actual Afghanistan, as well as from South Russia, and as far as Europe, further testify the interest for the gem in commercial trade.

The expansion of the Greek Empire was a major step in the history of the Silk Road. The conquest of India by Alexander the Great in 327-326BC followed by the establishment of the Indo-Greek rulers of Bactria in the Punjab and adjacent territories in 180BC left a deep imprint in the Indian territory which would resonate for over a century and a half. Hence, a considerable volume of trade between India and the West came into existence. During the first century BC, the Greeks established in India imported for themselves silk and other articles from China, including jade, as demonstrated by jade objects dated from the Greek period excavated from the ancient Indian site of Taxila. (Marshall, 1951)

A few centuries later, the Chinese Buddhist monk and pilgrim Xuangzang who had embarked on a spiritual quest and journey to India noted with admiration the abundance of "gold, silver, white jade, and pearls produced in this country". (Xuangzang, from 629 to 645AD)

## CORAL

Used as an adornment since prehistoric times, coral was favored by the Gauls as an ornamentation for their helmets and weapons, and continued to be highly praised during the Classical Era.

Precious red coral has been exploited from the coasts of Italy for Millenia and the Mediterranean sea is the historic source for the gem. Throughout the centuries, the organic gem assumed religious and apotropaic meanings: Ancient Romans hang branches of coral around children's necks to preserve them from danger and the substance had many medicinal virtues attributed to it. Worn as a protection from the evil eye, and by women as a cure for infertility, it is still donated to infants and brides as propitiatory ornaments.



Madonna and Child with Angels. Giovanni dal Ponte, Florence 1410's. Tempera and gold leaf on panel.  
Blanton Museum of Art. Credit: Daderot, Wikimedia

Since Antiquity, the precious *Corallium Rubrum* has been an important Mediterranean resource. At the turn of the Millennium, the most significant of the overseas trade for the Roman Empire was with South India. The three main Roman ports involved in Eastern trade were Arsinoe, Berenice and Myos Hormos. In India, the ports of Barbaricum (modern Karachi), Barygaza (today Bharuch), Muziris and Arikamedu round the tip of the peninsula had developed into thriving centers of the Indo-Roman trade.

The 1<sup>st</sup> century CE Periplus of the Erythraean Sea makes references of Greco-Roman merchants selling in Barbaricum "thin clothing, figured linens, topaz, coral, stirax, frankincense, vessels of glass, silver and gold plate, and wine". In Barygaza, they bought "wheat, rice, sesame oil, cotton and cloth", further adding: "There are imported into this market-town (Barygaza), wine, Italian preferred, also Laodicean and Arabian; copper, tin and lead; coral and topaz (...)" (Periplus, 49).

Roman naturalist and natural philosopher Pliny the Elder remarked that the red gem was as highly treasured in India as pearls were in Rome, and that the great demand for Mediterranean coral, especially by Indians, had made its uses in the region of origin quite rare. Pliny also observed that coral had for Indians "powerful apotropaic qualities as well as artistic beauty". (NH32.11.23) Moving in opposite directions, both organic materials, coral and pearl, played a leading role in the 'Indo-Sino-Mediterranean' trade of the time.

The preference of Indians, and other Asian civilizations, e.g. Tibet, China, Japan..., for coral was manifest as early as the ancient period. Aside from the delicate and fine polish of the gem for jewelry use, this great affection could come from spiritual and religious associations.

According to Vedic astrology, coral symbolizes life and blood force. It is the primary gem for planet Mars and mentions of coral are made in the Upanishad. The Mediterranean red gem is also one of the seven treasures in Buddhism. The *sapta-ratna*, a consistent list of (seven) precious substances associated with the Buddha were first codified in the early Sanskrit text, the *Mahāvastu* (The Great Event), namely: *suvaṇa* (gold), *rūpya* (silver), *vaidūrya* (lapis lazuli), *muktā* (pearl), *lohitika* (red precious stone or red coral), *musāragalva* (ammonite, agate, or coral), and *sphaṭika* (crystal or quartz). (Xinru Liu, 1988)

Further East in China, precious red coral has been an extremely valuable commodity from the beginning of the Han dynasty. Highly praised by the elite, Chinese fictions have emphasized on the extravagance, often symbolized with coral trees, of the Han court, and the red organic gem is celebrated in many Han literary pieces. Emperor Wu's Shanglin Park - the rich hunting ground created by the Emperor himself near the then capital - was said to have three thousand species of plants and valuable exotic stones, including a coral tree with 462 branches.

"From China to the Roman Empire was a long way, nearly twice as long as the overland journey, and the system of monsoon-winds meant that one often had to wait some time before making a particular leg of the voyage. Besides, several stages (such as the Red Sea, the west coast of India, and the Straits of Malacca) teemed with natural and man-made dangers to navigation. Direct sea-borne contact between Roma and China was always rare." (Sitwell, 1984)

There is no evidence of direct trade between the Roman and Chinese Empires by this time. According to the Periplus, Roman merchants could obtain a regular supply of Chinese silk and furs from Barbaricum and Barygaza. Coral and glass counted amongst the most highly valued foreign goods in China, and the main items from 'Da Qin' 大秦 - name for Rome, literally Great Qin, after the Qin dynasty - to be imported from India to China were probably coral, pearls, storax and glass.

The dynamic of the Silk Road not only facilitated the flow of migrants and goods, it also insufflated cultures, ideas and religions to spread and to interconnect. In the cultural context of the time, Buddhism was a powerful and vibrant force. Originating from Eastern India in the 5<sup>th</sup> century BC, the official introduction of Buddhism in China dates back to 67CE. Five hundred years later in 552, Buddhism was 'officially' imported to Japan, via China and Korea.

During the Nara period in the 8<sup>th</sup> century AD, it is said that the crown worn at the consecration of the Great Buddha of Todaiji Temple in Nara Prefecture by Emperor Shomu and Empress Komyo in 756, was inlaid with 10 hanging beads of red coral from the Mediterranean Sea.

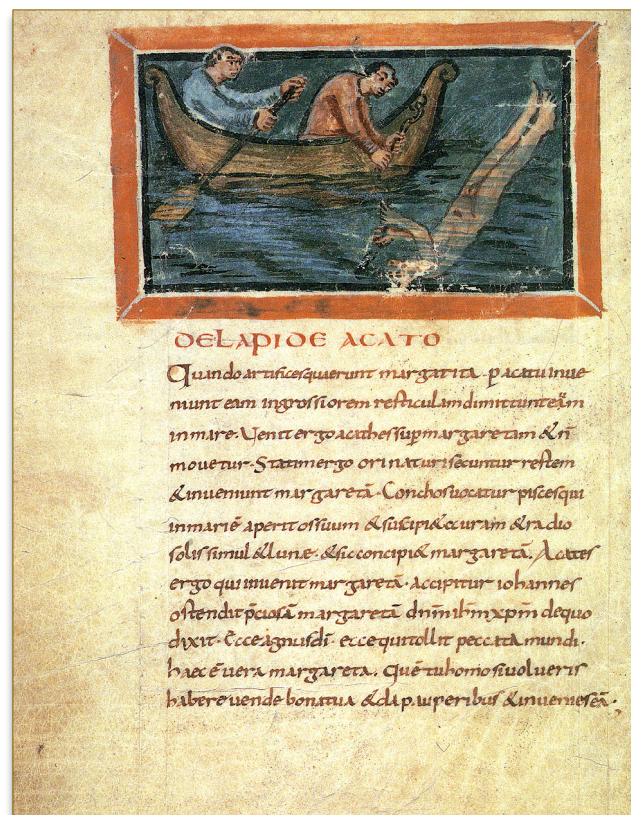


## PEARLS

Natural pearls have been used as an ornament and for ceremonial purposes since prehistory, playing a special role in funeral rites. One of the most ancient jewels on Earth, the oldest specimen of natural pearl is dated to 5500BC. It was discovered in a grave at the coastal site of Umm al-Quwain 2, in the United Arab Emirates. (Charpentier et al, 2012)

Celebrated in the Greco-Roman world since classical time, the first specific word for pearl '*margarites*' was used by Theophrastus and appeared during the time of Alexander the Great. Although the Greek word *margaritae* was also used by the Romans, *unio* was a common name in the Antique Rome, as Pliny explained that each pearl was unique and its precious appearance was not the product of any (human) intervention. In his classification on precious stones, he ranked *smaragdus* (emerald) third, after *adamas* (diamond) and after the pearls. (*Historia Naturalis* Chap. 18). Valued for their uniqueness and their brilliance, indeed far greater than that of the uncut diamonds worn by the Romans at that time, owning a pearl was a great luxury, symbolizing wealth and imparting high social status to its owner.

During the Antiquity, the main fisheries were located in the Persian Gulf, as well as on the coast of Ceylon and India. Pliny the Elder remarked: "It is the Indian Ocean that principally sends them to us. The most productive of pearls is the island of Taprobane, and that of Perimula also, a promontory of India. But those which are most highly valued are found in the vicinity of Arabia, in the Persian Gulf." The Periplus of the Erythrean Sea also commented on the town of Mannar in India, renowned for its flourishing pearl fisheries.



'The catching of pearls'. Bern Physiologus, 825-850  
9<sup>th</sup> century bestiary depicting natural pearl diving. Source: Wikimedia

Highly praised by the elite in the ancient world, natural pearls have been used in jewellery since the Antiquity. They became an extremely valuable item of export for India and one of considerable economic importance.

The mercantile activity between Rome and India was very developed at the beginning of the Common Era. The balance of this vibrant trade between Rome and India was very much in favor of India, to such a degree that Roman conservatives such as Pliny the Elder would deplore the insatiable appetite of the Roman society for oriental luxuries, including pearls, being according to him destructive of civic values and depleting the wealth of the Roman Empire.

"At the present day, even the poorer classes are affecting them, as the people are in the habit of saying that a pearl worn by a woman in public is as good as a lictor walking before her.(...) I once saw Lollia Paulina, the wife of the Emperor Caius, covered with emeralds and pearls which shone in alternate layers upon her head, in her hair, on her ears, upon her neck, in her bracelets, and on her fingers, and the value of which amounted in all to 40,000,000 sesterces; indeed she was prepared at once to prove the fact by showing the receipts and acquittances." (Pliny.NH.9.58)

Equally rewarding for India at that time was the trade with the Chinese Empire.

China has a long history of using the organic gem, and one of the most ancient classical books "The Shu King (ca. 2357-627BC) notes that pearls found in oysters in the River Hwai were given as tribute to Emperor Yu (c. 2200-2100BC), and from the province of King Kau he received "strings of pearls that were not quite round". (Kunz)

During the Han dynasty, the imperial Chinese region of Jiaozhi, that included today Liangguang and northern Vietnam, played a significant role in China's cultural exchange with foreign regions and acted as a crucial link in the maritime trading system of the Empire with the Western world.

A number of ancient Chinese texts provides fascinating glimpse of the wealth traded in Jiaozhi circuit, including the much favored pearls. The *Han Wei Congshu*, a collection of Han and Wei period writings reads that during the Han dynasty, men of the Annamese coast rode elephants into the sea to find and bring back the treasures from the deep, in particular the beautiful pearls (Han Wei Congshu, Schafer,1985). In this region (of Vietnam), an ancient tradition talks about shark-people who lived under the sea of Champa's coast; they were rich in pearls (Schafer, 1985).

On his way back from his pilgrimage to India in the early 5<sup>th</sup> century, the Chinese Buddhist monk Faxian spent two years in the kingdom of Ceylon. He wrote that pearl fishing was a very important economic activity on the island (Boulnois, 2004). "Most of them produce pearls and precious stones of various kinds; there is one which produces the pure and brilliant pearl (...) The king employs men to watch and protect it, and requires three out of every ten pearls, which the collectors find". (Faxian)

Three centuries later, pearls were highly prized in the flourishing China of the Tang. Favored by Wu Zetian (625-705), it is said that the Empress used pearl powder internally and on her skin, and she was famed for her impeccable complexion. Highly revered for their medicinal and cosmetic virtues, the glowing gem was said to cure cataracts and other eye diseases. According to the *Ben Cao Gang Mu* (Compendium of Materia Medica), the Chinese traditional medical work of reference, pearl has the power to stimulate new skin growth and has been used in healing and releasing toxins, and to remove sun damage and age spots (Schafer, 1985).

Natural pearls being so abundant in the Persian Gulf and in the shallow waters of the Gulf of Mannar, India has nourished an obvious affinity for the gem of the Sea throughout the centuries. Associated with the Moon, an old Indian belief tells us that on full moon the oysters open and rise to the surface of the sea, receiving dew drops, or tears of angels, and there by divine power the pearls are formed.

Mention of pearls are made in one of the great Antique Indian scriptures, the Veda (16<sup>th</sup>-6<sup>th</sup> century BC), and dates back to the 6<sup>th</sup> century BC in the *Purana*. As early as the 4<sup>th</sup> century BC, Indian philosopher and royal advisor Kautilya, one of the author of the ancient political treatise the *Arthashastra*, had carefully noted the characteristics of good and bad pearls, as well as the qualities and colors of rubies, beryls, sapphires, crystals, diamonds and corals. He also describes no fewer than five varieties of pearl necklaces alone. (Nath Sen, 1999)

During the Gupta period in India, metallurgy had attained a very high degree of development and so did the fine art of the jeweller. The glowing organic gem was being used for inlay work in the manufacture of ornaments, and the pearl industry was very developed.

The Gupta Empire (3CE-590CE) had maintained strong trading ties with the Chinese Empire and its nearby kingdoms, such as Burma and Sri Lanka, as well as with Persia, Arabia and with the sparkling Byzantine Empire. This connection grew continuously and during the 9<sup>th</sup> century, the commercial relations were very well established between the trading centers in the Orient and various European cities including the largest and wealthiest of all, Constantinople.



Hagia Sophia, Istanbul. Built in 537 under the reign of Empress Theodora and Emperor Justinian. One of Constantinople magnificent jewels, the orthodox cathedral is considered as the epitome of Byzantine architecture. Photo: Sandrine Martin

Building on the rich heritage transmitted by ancient Greco-Roman jewellery masters, Byzantine craftsmen perfected their art, reaching a refined degree of elegance and perfection. Delicate and elaborate polychrome jewellery was very popular in the Byzantine world, attested by the representations of the elite and patrons, and the historic pieces from the era.





Mosaic of Theodora and her entourage. Basilic of San Vitale, Ravenna, Italy. 547AD  
Credit: Peter Milosevic , Wikimedia

Masterpiece of Byzantine art and architecture, the basilic of Ravenna is especially acclaimed for its rich and colorful mosaics, and was designated UNESCO World Heritage in 1996.

This mosaic depicts Theodora in all her splendor. Adorned with elaborated jewels, her crown is decorated with rows of pearls and enhanced with a long pearl *pendilia*. The Empress' jewelled collar and earrings are also enriched with pearls.

Jewellery, and specially the use of gemstones, was of high importance in the Byzantine Empire. The topic was directly addressed by Justinian I himself in his Code of Laws that he ordered shortly after his enthronement in 527. The *Codex Iustinianus* , 'The Code of Justinian', regulates the use of emeralds, *hyacinths* (sapphires), and pearls.



Pair of gold earrings with pearls and sapphires. Byzantine, 6<sup>th</sup>-7<sup>th</sup> century.  
Bracelet (one of pair). Gold, silver, pearls, amethyst, sapphire, glass, quartz. Byzantine, made in probably Constantinople.  
Source: Metropolitan Museum of Art , New-York



## SAPPHIRES

According to earliest Sanskrit texts, Sri Lanka is the traditional source of sapphires and of rubies. One of the oldest source of gemstones, it was most probably the original source for these gems. (Hughes)

According to ancient Indian works on gemmology, gems are classified as Maharatna and Uparatna (precious and semi-precious stones). Among the nine well-known precious gems vajra (diamond), mukta (pearl), manikya (ruby), indranila (sapphire), marakata (emerald), vidruma (coral), gomeda (jacinth), pusparaga (topaz) and vaidurya (lapis lazuli), the first five are classified as Maharatna and the last four as Uparatna.

The Chitrastotra (ca. 5<sup>th</sup> century AD), an ancient Indian text that discusses The Art of Painting, notes: "A king should be drawn just as a god. The handsome looking King wears a brown striped silk garment. He is offering flowers to the Buddha on a tray painted with designs. He wears a tiara of floral motif from which hand string of pearls and sapphire."

Accounts on the blue gem of Ceylon origin were made by Pliny the Elder, and Pliny writes about blue and violet sapphires, of which the best are supposed to be the Median (Pliny the Elder, 1991). During the reign of Roman Emperor Claudius (from 41 to 54AD), Pliny wrote about ambassadors visiting Taprobane (Sri Lanka) mentioning its quantity and variety of fine precious stones. Greek astronomer Ptolemy (100-170AD) also referred to beryl, sapphire, and gold among the products of the island in the second century AD. (Hughes)

In Italy, the use of gems in jewelry goes back to Etruscan time (800-264BC), and were used by the Greeks and Romans from 480BC onwards (Ball). Associated with God of music, poetry and arts Apollo by ancient Greeks, and to the planet Venus by the Romans, sapphires were revered for centuries for their wisdom virtues and assumed 'general curative powers in eye disease'. (Kunz)

The appreciation of gems for their color and material was a constant throughout the ancient world as early as the time of Theophrastus. During the classical era, they were often carved as intaglios and used as seals. The choice of the seal was of great importance, often depicting a deity of the Pantheon or a powerful and notorious personality, e.g. Alexander the Great. Engraved gems could also serve religious purpose by figuring a deity who would then help protect the wearer. (Gagarin, 2010)



Intaglio , Ptolemaic Princess wearing a diadem. Ceylon sapphire, 2<sup>nd</sup> BC.  
Cabinet des Médailles, Paris. Credit: Marie-Lan Nguyen, Wikimedia Commons

At the beginning of the Common Era, sapphire was with natural pearl, one of the most important items exported from the Jewel Box of the Indian Ocean to the Western World.

In addition to Sri Lanka, Burma also provided sapphires, rubies and topaz to the Roman World, while India was famous for its green agates (The Periplus) and beryls (Pliny).

The wealth of Sri Lanka has been equally praised by the Chinese. Yi Jin the 7<sup>th</sup> century Tang Chinese Buddhist monk and traveler named it 'Baozhu', literally 'Jewel Isle'. (Kakakuso, 1896)

Two centuries earlier, the 5<sup>th</sup> century pilgrim Faxian had pointed out with great enthusiasm that: "The kingdom is on a large island, (...) Left and right from it there are as many as 100 small islands, (...) but all subject to the large island. Most of them produce pearls and precious stones of various kinds".



Map of Ceylon (Taprobane) Alain Mallet, 1686  
Credit: Geographicus Rare Antique Maps

## RUBIES

Although the exact discovery and first use of rubies are unknown, historical records suggest their origin being Sri Lankan, (Hughes, 2014) and the 5<sup>th</sup> century CE epic poem *Mahavamsa* mentions about a myriad of gemstones, including sapphires, pearls and rubies.

The ancient Indian text, *Haiti Smriti*, reads : "Coral in worship will subdue all the three worlds. He who worships Krishna with rubies will be reborn as a powerful emperor, if with a small ruby, he will be born a king." (Kunz, 1971)

"In Sanskrit, it was called *ratnaraj* - Queen of the precious stones and a symbol of permanent eternal fire. In Greco-Roman times, the reference to fire was common; in 400BC Theophrastus related ruby to *anthrax* (coal). Two thousand years ago Pliny called all red stones *carbunculus* (diminutive of *carbo*)". Giuliani et al. in *Geology of Gem Deposits* (Groat, 2007)  
About '*carbunculus*', Pliny says that the gem name derives "from its resemblance to fire".

Worked for more than 700 years, the Jegdalek mines in Afghanistan have delivered fine rubies. During the 1200s, wealthy Muhammadan merchants sold rubies to Kublai Khan and other famous historical figures. These merchants reportedly could tell the difference between ruby and spinel (Bowersox et al, 2000 - Bretschneider, 1887).

For the period of our interest however, available Classic and Chinese literature mostly connect the fiery gem with Ceylon. Pliny remarks: "They have (...) as well as their pearls and precious stones, highly valued; all our luxuries in fact. Those even of the most exquisite nature are there carried to the very highest pitch".

Several centuries after Pliny, Taboprane was associated to a great ruby. The 6<sup>th</sup> century Byzantine trader and monk Cosmas writes :

"In this island (Ceylon) they have many temples, and on one, which stands on an eminence, there is a ruby as large as a great pine-cone, fiery red, and when seen flashing from a distance, especially if the sun's rays are playing round it, a matchless sight. The island being, as it is, in a central position, is much frequented by ships from all parts of India and from Persia and Ethiopis, and it likewise sends out many of its own". (Cosmas)

The Chinese pilgrim Hiouen Thsian, who was a century later than Cosmas, relates that at Anarajapura, on a spire surmounting one of its temple, a ruby was elevated which with its transcendent luster illuminated the whole heaven.

"It was several hundred feet high and decorated with pearls and rare gems. A signal post is installed on the temple, with a huge ruby fixed on it that issues a refulgent light that shines brightly as a star when viewed at a distance day or night. The king bathes the tooth relic three times a day with scented water and burns powdered incense as an offering, in an extremely opulent manner". (Strong, 2004).

Discovered in October 1970 in the Southern suburbs of actual Xi'an, where was located the ancient capital Chang'an (literally translated as '*Perpetual Place*') of the glorious Tang Dynasty, the famous Hejiacun hoard attests of the use of rubies and sapphires in China during the Tang. There, was unearthed over 220 silver and gold objects in addition to silver ingots, drinking vessels and belts made from glass, rock crystal, and jade, as well as rubies, sapphires, and amber. "Rubies and sapphires originated in Burma, Sri Lanka, Thailand, and Kashmir, India". (Hansen, 2012)



Burial Crown, Song dynasty (960–1279) or later, China - Gold, rubies, pearls, cat's-eyes, iron  
Source: Metropolitan Museum of Art , New-York



## SPINELS

Afghanistan is not only the land of the precious lapis-lazuli and the fine rubies of Jegdalek, it is also home for the mythical red spinels of Kuh-i-Lal.

Located in a remote valley in the province of Badakshan, today Northern Afghanistan, it is said that the traditional historic source of spinels was discovered in the 7<sup>th</sup> century, after an earthquake had unearthed some of the precious red stones. Over the past 1000 years, the sublime red to pinkish red Afghan jewel was favored in the Islamic world and highly revered among the greatest monarchs.

"I have failed to find out how old the *balas ruby* is. The earliest I have met with are those on the Bimarān casket, which was found with coins of Azes I and is probably no earlier than c. 30 B.C. (...) For Roman times see Warmington, who tells me he has not met with the *balas ruby* in Hellenistic or Greek times. Yet it is hard to believe that the mine was first opened by the Yueh-chi." (Tarn, 1984)

For centuries however, the red gem has been 'confused' with rubies and named 'balas rubies' (or 'bales rubies,' deriving from the province of Badakhshan), and it was not until 1783 that spinel was identified as a different mineral than the red corundum by mineralogist Jean-Baptiste Louis Rome de Lisle.

Meanwhile, the fine ancient jewel has been highly praised by the rulers of Ancient Timur and later by the Mughal Emperors. Throughout history, exceptional spinels from Kuh-i-Lal have adorned Kings and Emperors around the world ; such as the Timur Ruby, today in the private collection of HM Queen Elizabeth II of England, this exceptional spinel of over 350ct was originally the possession of the Mughal Emperor Jahangir, as indicated by one of the several inscriptions (Stronge, 1996) ; the impressive spinel of over 400ct adorning the Imperial Crown of Russia and The Black Prince's Ruby (about 177ct), which is set in the front of the Imperial State Crown of Great Britain, nowadays on public display at the Tower of London (Younghusband & Davenport, 1919).



Imperial State Crown of the United Kingdom

*The Crown Jewels of England.* London Cassell & Co. - Cyril Davenport (1848-1941) – Davenport; Younghusband (1919)  
Source: Wikimedia

With its legendary caravans transporting mysterious treasures from China across the Eurasian steppe to Arabia and the Western World, the Silk Road continues to sparkle imagination.

Throughout centuries, the trading activities along the Silk Routes have facilitated the transmission of migrants and merchandise, and also of ideas, technologies, and of the arts, thus shaping civilizations in Europe, Arabia, Persia, India, and China. Precious gems have played a significant role in this transmission.

The trading of gemstones indeed did not only move merchants, but also skilled workers and artists.

While the historic classic source of jade-nephrite was for centuries Khotan in China, many elegant and finely carved jade objects, most likely of Scythian and Hellenistic origin, were discovered as far as Iran and Central Asia, attesting of the role of gems in the interconnections within cultures at the time.

Keene also remarks : "(...) whenever the subject of Islamic jades was at issue, the almost universal picture conveyed by the literature was that no jade industry existed (in Central Asia) until the Timurids began one in Samarkand; some conjectured that this happened as a result of the Timurids' importing Chinese craftsmen knowledgeable in the "mysterious" art of carving jade." (Keene, 2004)

Still sparkling in Central Asia and across Europe of the Medieval and the Renaissance periods, the numerous works of art enriched with the intense ultramarine deriving from the mythic 'sappir spotted with gold' of Badakshan vividly attest to the vast and lasting influence of gems.



Girl with a pearl earring, 1665. Considered a Masterpiece of Johannes Vermeer  
Credit: Mauritshuis Museum, Public Domain. Wikimedia

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