

THE SACRED ART OF THE SILK ROAD

Background notes

Jonathan Tucker - 25 April 2018



Bronze Buddha from the Swat Valley in Northern Pakistan, 6th or 7th century.

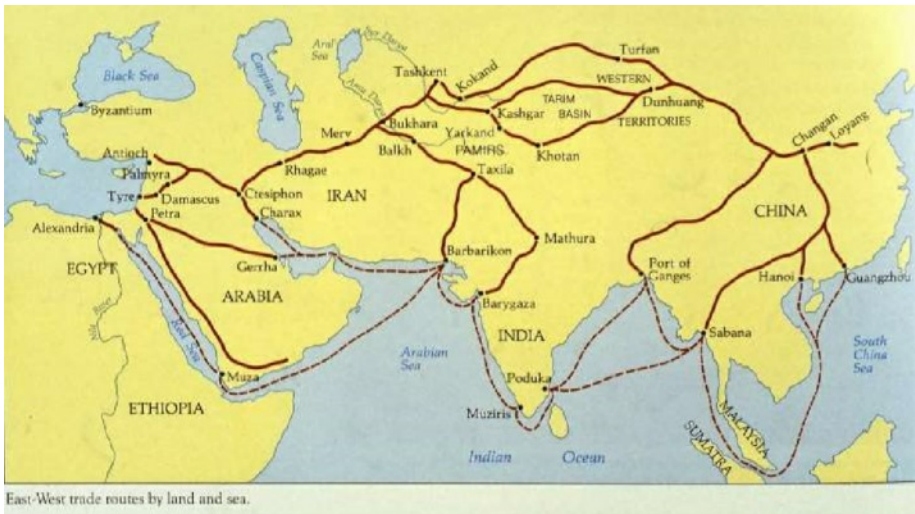
Found in the ruins of a 9th century Viking house on Helgö Island, Sweden



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THE SACRED ART OF THE SILK ROAD

MAP The Silk Road- Land and Sea routes



A SUMMARY OF TRADE GOODS FROM EAST AND WEST CARRIED BY LAND AND SEA

Commodities from the East

From India:

Household slaves, pets and arena animals, exotic furs, cashmere wool, raw and finished cotton (cotton plants have been cultivated in India for 4,000 years), spinach (probably mainly from Nepal), sandalwood and other exotic woods, palm-oil, cane-sugar and perfumes (aromatics), gems (rubies, sapphires and emeralds although diamonds, surprisingly, were not prized by the Chinese).

From China:

Silk, skins, iron, mirrors, weapons, porcelain (first manufactured around the 8th century), lacquerware, nephrite jade (from Khotan), rhubarb, tea.

Paper - traditionally thought to have been invented by the court eunuch Cai Lun in 105 AD.

Gunpowder, invented in China around the seventh century and first used by them for military purposes around the twelfth century. It reached Europe during the fourteenth century.

Medicines – Ephedra (Chinese: Mahuang – used for millennia in China to treat asthma and hay fever. Ephedrine – now synthesized – was originally made from ephedra), Epsom salts, elixirs for immortality (which often shortened, rather than extended life), ginseng (the best was from Korea), snake bile (collected in Southern China and Indochina) and seaweed (a diuretic), among many other examples.

From various parts of Asia:

Precious and semi-precious stones: including lapis lazuli (mined in Afghanistan), jadeite (from Burma), rock crystal, carnelians and other quartzes, rubies (from Sri Lanka and Southeast Asia), sapphires (from India, Southeast Asia and Sri Lanka)

Jewellery, ivory, tortoiseshell, rhinoceros horn, seashells and pearls

Ornamental woods, gum resins and aromatics (camphor from China, Japan, Borneo and Indochina was highly coveted)

Silver and gold (especially from Southern China, Tibet and Indochina but also imported from many other parts of the world)

Spices (especially pepper, ginger, cardamom, turmeric, nutmeg and cloves, and, from India, Sri Lanka and Southeast Asia- cinnamon)

Cochineal and indigo used for dyeing fabrics and cosmetics

Minerals: sulphur (for elixirs, imported from Indonesia); realgar (or arsenic sulfide, found in many parts of the world- although the best comes from Hunan province in China- and used as an elixir, to treat skin diseases and- so it was believed- to convert copper into gold)

Ceramics

Horses (Central Asian breeds were especially prized in China) and camels

Flowers, including peonies, roses, camellias and chrysanthemums and tulips (tulips from Central Asia and Turkey first arrived in Europe in the 1550s and were so coveted in 17th century Holland that a single bulb could sell for 5,000 guilders, more than the price of a house!)

Alfalfa for animal feed, millet.

Human beings: acrobats, Central Asian jugglers and musicians, Central Asian grooms, dwarves, household slaves, South Sea Island pearl divers, Southeast Asian dancers, foreign guards.

From Persia and the countries of the Middle East:

Incense (from southern Arabia), dates, pistachios, peaches, walnuts, Tyrian purple (from the Murex trunculus shellfish) and indigo for dyeing; frankincense and myrrh; storax (an aromatic resin), muslin cloth, wines, glassware, olive oil and silver vessels (especially the work of the Sasanian craftsmen of Persia).

Commodities from the West

Merchants on the land-routes and Roman ships, crewed by men from many nations, conveyed: Wool and linen textiles, carpets, Baltic amber, Mediterranean coral, asbestos, bronze vessels, lamps, glass vessels and glass beads, wine and papyrus,

huge quantities of coins and bullion, ambergris (from the sperm whale, used in the manufacture of perfume and collected along the African coast), entertainers, exotic animals and opium (opium poppies probably originated in the eastern Mediterranean and reached China in about the 7th century).

Religions (spread along the trade routes in all directions)

Buddhism (arose in India and spread in both directions as far east as Japan and as far west as modern day Turkmenistan).

Islam (founded in the seventh century, it spread in all directions and now attracts a worldwide following of more than one billion devotees).

Christianity (arose in the Eastern Mediterranean and spread throughout the Roman world. Nestorian Christianity spread eastwards after the expulsion of Nestorius, patriarch of Constantinople, during the 5th century. It reached China by 635).

Manichaeism (developed in the Middle East during the third century and reached China by the seventh or eighth century).

Zoroastrianism (the state religion of Persia until the arrival of Islam in the seventh century, it had spread eastwards to China and India by the seventh or eighth century).

Technology and innovations

Acquired by China from the lands to the west:

Harnesses, saddles and stirrups (from the steppe nomads), construction-methods for bridges and mountain roads, knowledge of medicinal plants and poisons, cultivation of cotton and seafaring techniques.

Acquired by the West from Asia:

Chinese inventions (summarized in the table below)

Medical techniques (especially from Arab scholars such as Ibn Sina)

Science and mathematics- algebra, astronomy and the Arab numerals that we use in the West today.

The use of passports (a Mongol innovation, known as the paizi or gerege)

Military techniques and strategies

Architectural styles and devices (the Persian invention of the squinch allowed the addition of a dome and led to the construction of many of the world's great buildings)

The westward flow of Chinese technology occurred throughout the existence of the Silk Road. The renowned scholar Joseph Needham, in his monumental work Science and Civilisation in China, summarized the plethora of new inventions that reached Europe between 1st and 18th centuries, often after a timelapse of several hundred years. There are many other examples, not listed below, such as the use of paper money, the abacus and the use of coal for fuel. The modern world owes a great debt to ancient China:

**CHART SUMMARIZING THE TRANSMISSION OF MECHANICAL AND OTHER TECHNIQUES
FROM CHINA TO THE WEST**

<u>Type of Device</u>	Approx. time lag in centuries
Square-pallet chain-pump	15
Edge-runner mill	13
Edge-runner mill with application of water-power	9
Metallurgical bowing engines, water-power	11
Rotary fan and rotary winnowing machine	14
Piston-bellows	Approx. 14
Draw-loom	4
Silk- handling machinery (a form of flyer for laying thread evenly on reels appears around 11 th C. and water power is applied to spinning mills in 14 th C.	3-13
Wheelbarrow	9-10
Sailing-carriage	11
Wagon-mill	12
Efficient harness for draught-animals: Breast-strap (postilion)	8
Collar	6
Crossbow (as an individual arm)	13
Kite	Approx. 12
Helicopter top (spun by cord)	14
Zoetrope (moved by ascending hot-air current)	Approx.10
Deep drilling	11
Cast iron	10-12
'Cardan suspension'	8-9
Segmental arch bridge	7
Iron-chain suspension bridge	10-13
Canal lock-gates	7-17
Nautical construction principles (including watertight compartments, aerodynamically efficient sails and fore-and-aft rigging)	Up to 10

Continued

**CHART SUMMARIZING THE TRANSMISSION OF MECHANICAL AND OTHER TECHNIQUES
FROM CHINA TO THE WEST (Continued)**

<u>Type of Device</u>	Approx. Time lag in centuries
Stern-post rudder	Approx. 4
Gunpowder	5-6
Gunpowder for military use	4
Magnetic compass (lodestone spoon)	11
Magnetic compass with needle	4
Magnetic compass used for navigation	2
Paper	10
Printing (block)	6
Printing (movable type)	4
Printing (metal movable type)	1
Porcelain	11-13

(Adapted from Joseph Needham, *Science and Civilisation in China. Vol.1, Introductory Orientations*. Cambridge: Cambridge University Press, 1954)

LIST OF ILLUSTRATIONS

Fig. 1 Prjewalski's Horse

Fig. 2 Bronze figure of a flying horse, one leg resting upon a swallow. Eastern Han dynasty, (25–220 AD). Unearthed at Wuwei, Gansu in 1969.

Fig. 3 This is the Shandan Army Horse Ranch at the foot of Mount Yanzhi [YAN-ZE], Gansu province, the largest horse-breeding centre in Asia.

Fig. 4 Mural depicting a group of foreign envoys to the Tang court. Tang dynasty, 706 AD. H. 184.5 cm, W. 252.5 cm. Discovered in 1971 at the tomb of Prince Zhanghuai (Li Xian), Qianling, near Xian, Shaanxi province.

Fig. 5 Painted leaf from a Manichaean book. Tang dynasty, 8th or 9th century. H. 12.4 cm, L. 25.5 cm. Found in the city walls of Gaochang (Khocho), near Turfan, Xinjiang province. (Museum für Indische Kunst, Berlin)

Fig. 6 Rubbing from a stele inscribed in Syriac and Chinese commemorating the introduction of Nestorianism into China, dated 781. H. 2.36 m. Discovered in 1625 in Zhouzi County, Shaanxi province. (Forest of Stelae Museum, Xian)

Fig. 7 Wall painting depicting Palm Sunday. Tang dynasty, 683–770 AD (established by radiocarbon dating). Gaochang (Khocho), Nestorian Temple, near Turfan, Xinjiang province. H. 61 cm, W. 67 cm. (Museum für Indische Kunst, Berlin)

Fig. 8 This is an Indian ivory mirror handle found in the ruins of Pompeii. It dates to around the time of Pompeii's destruction in 79 AD and has found its way along almost the entire length of the Silk Road.

Fig. 9 Pharaoh mask. Another example of this phenomenon is an Egyptian pharaoh mask of about 20 cm in height, found in a Mongol grave at Karakorum in Mongolia and now in the Ulan Baator museum. It is made of obsidian and was possibly booty from the Mongols' campaigns in Egypt in 1260.

Fig. 10 Viking Runes with the name 'Halvdan'. Inscribed by Viking mercenaries on the second floor of the Hagia Sofia, Istanbul, Circa 9th century.

Fig. 11 Bronze Buddha from the Swat Valley in Northern Pakistan 6th or 7th century. Found in the ruins of a 9th century Viking house on Helgö Island, Sweden.

Fig. 12 Mural depicting visiting ambassadors at the royal court at Afrasiab, Samarkand Sogdian, 7th century.

Fig. 13 8th-century Tang dynasty Chinese clay figurine of a Sogdian man wearing a distinctive cap and face veil, possibly a camel rider or even a Zoroastrian priest engaging in a ritual at a fire temple Museo di Arte Orientale (MAO) of Turin, Italy.

Fig. 14 Detail of an 8th-century Tang dynasty groom or merchant from Central Asia, probably a Sogdian.

Fig. 15 Petroglyph depicting a man with Central Asian features genuflecting beside a stupa Circa 8th century Chilas I site, Northern Pakistan.

Fig. 16 Child's Coat with Ducks within Pearl Medallions Central Asia (Sogdiana), 8th century. (Cleveland Museum of Art)

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Fig. 18 Rubbing from a twentieth century relief depiction of the celebrated Chinese monk Xuanzang Xingjiao Temple, Shaanxi province (Xuanzang's burial place).

Fig. 19 Rock-cut image of a seated Buddha. Northern Wei dynasty, erected ca. 460-465. H. 14 metres. Cave 20, Yungang, Shanxi.

Fig. 20 Gilded bronze standing figure of Maitreya, Buddha of the Future China, Northern Wei, dated 486 but probably slightly earlier. H. 140 cm. (Metropolitan Museum, New York)

Fig. 21 Standing grey schist Buddha. Northwest Pakistan. Probably from the Sahri Bahlol-Takht I Bahi area Gandhara, 2nd-3rd Century AD. H. 147 cms. (Private Collection)

Fig. 22 The Great Buddha. Bamiyan, Afghanistan, ca. 5th century. H. 55 metres. Destroyed by the Taliban in March 2001.

Fig. 23 Interior of Cave 6. Northern Wei dynasty, late 5th century. Yungang, Shanxi province.

Fig. 24 Bodhisattva with Crossed Ankles, probably Avalokitesvara. China, Northern Wei dynasty, ca. 470–80. H. 146.1 cm. Yungang, Shanxi province. (Metropolitan Museum, New York)

Fig. 25 Amitabha Buddha with his disciples, Ananda and Kasyapa. Northern Wei dynasty. Built between ca. 505 - ca. 523. Cave 140, Middle Binyang cave, Longmen, Henan province.

Fig. 26 Painted grey limestone frieze depicting the empress with attendants, making offerings at a shrine Northern Wei dynasty, first quarter of 6th century. H. 203 cm, W. 278 cm. From the Binyang cave, Longmen, Henan province. (Nelson-Atkins Museum of Art, Kansas City, Missouri)

Fig. 27 Vairocana Buddha with a Bodhisattva and a disciple. Tang dynasty, ca. 672-75. H. (Buddha, including pedestal) 17.14 m. Fengxian temple, Longmen, Henan province.

Fig. 28 Exterior of the Mogao Caves, Dunhuang, Gansu province

Fig. 29 Painted ceiling with a lotus within a square depicting joined rabbits and flying *apsaras* Sui dynasty, (581-618) Cave 407, Dunhuang, Gansu province.

Fig. 30 A group of painted stucco sculptures. Tang dynasty, 8th century. Cave 45, Dunhuang, Gansu province. In this typical arrangement from the High Tang period, a seated Buddha is flanked by his two most favoured disciples Ananda and Kasyapa, a pair of Bodhisattvas and two *lokapalas* ('Heavenly Kings').

Fig. 31 The world's oldest complete printed book, The Diamond Sutra (Detail from the Frontispiece, showing the Buddha preaching to his disciple Subhuti.) Tang dynasty, dated 868. H. 26.5 cm, L. 533 cm. Discovered by Sir Aurel Stein in Cave 17, Dunhuang, Gansu province. (British Library)

Fig. 32 Women at prayer, Shiraz, Iran

Fig. 33 Mural depicting a group of *Fravashis* ('protector spirits'). Sogdian 7th century. H. 1m, W. 1m. From Penjikent, Tajikistan. (State Hermitage Museum, St. Petersburg)

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Fig. 35 Woven silk on cotton textile decorated with elephants, camels and dragons. The 'St. Josse silk'. Samanid Period, Khurasan, circa 960. H.51 cm, W. 61.5 cm. Formerly in the church of St. Josse sur Mer, Pas de Calais. (Musée du Louvre)

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Fig. 37 Mausoleum of Ismail Samanid (r. 892–907). Constructed 892-943. Bukhara, Uzbekistan

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Fig. 40 The Registan Square, Samarkand 15th to 17th century

Fig. 41 The Gur-e Mir, Samarkand. Timurid, completed in 1404

Fig. 42 The sarcophagi of Timur, Ulugh Beg and Mir Sayid Barakah. The Gur-e Mir, Samarkand. Timur lies at the feet of his religious mentor Mir Sayid Barakah and at *his* feet lies Ulugh Beg.

Fig 43 A gold-plated statue of the late Turkmenistan President Saparmurat Niyazov (1940-2006). It stands atop a 120 metre tower Ashgabat, Turkmenistan

Fig. 44 Mural (no longer extant) depicting a youth in combat with a griffin above a winged angel 3rd-4th century Shrine M V, Miran, Xinjiang province

Fig. 45 Buddha with Six Disciples 3rd-4th century A.D. Shrine M III, Miran, Xinjiang province, China Dimensions: 57.2 x 100.2 cm

Fig. 46 Two murals depicting male angels with wings 3rd-4th century A.D. Shrine M III, Miran, Xinjiang province, China [National Museum, New Delhi]

Fig. 47 Camel silhouettes

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(After Stein, M. Aurel: *Serindia- Detailed Report of Explorations in
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