



Beyond frontiers: Ancient Rome and the Eurasian trade networks



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ABSTRACT

During the second half of the 19th century, the Roman Empire was already considered one of the key players inside the Eurasian networks. This research focuses on four relevant points. From a historiographical perspective, the reconstruction of the trading routes represented a central theme in the history of the relationship between the Roman Empire and the Far East. Imagining a plurality of itineraries and combinations of overland and sea routes, it is possible to reconstruct a complex reality in which the Eurasian networks during the Early Roman Empire developed. As far as economics is concerned, new documentation demonstrates the wide range and the extraordinary impact of the Eastern products on Roman markets. A final focus on the process of Chinese silk unravelling and reweaving provides an important clue on how complex and absolutely not mono-directional were the interactions and the exchanges in the Eurasian networks during the first centuries of the Roman Empire.

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1. Introduction

At the very beginning of the scientific debate over the 'Silk Roads', during the second half of the 19th century, the Roman Empire was already considered one of the key players inside the Eurasian networks.¹ Over the 20th century, as new evidence has come to light, and new approaches have been applied, the various interpretations and evaluations of the 'Roman Empire factor' have changed considerably. It is not possible to provide a full picture of this incredibly multi-faceted history of studies;² however, I will try to offer an overview by focusing on four points which seem to be par-

ticularly relevant to explain the Eurasian inter-connectivity with the Rome during the first three centuries of the Empire.

2. A historiographical premise.
3. Imperial Rome and the trans-Eurasian trade networks
4. The impact of Far East trade on Roman economics: new evidence
5. From China to Rome – from Rome to China: a short focus on Silk and Silk Roads

2. A historiographical premise

From a historiographical perspective, it must be stressed that 'the invention of the Silk Roads' was from the very beginning deeply associated with the History of the Roman Empire. In colonial discourse of the last three decades of the 19th century, the Roman Empire represented for the European nations the first experience of imperialistic

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¹ On historiography of the Silk Roads: Waugh (2010); Chin (2013). On universal empires: Bang and Kolodziejczyk (2012).

² On Roman Empire and Eurasia: Christian (2000); Parker (2002); Fitzpatrick (2011); Galli (2011); Seland (2013, 2014).

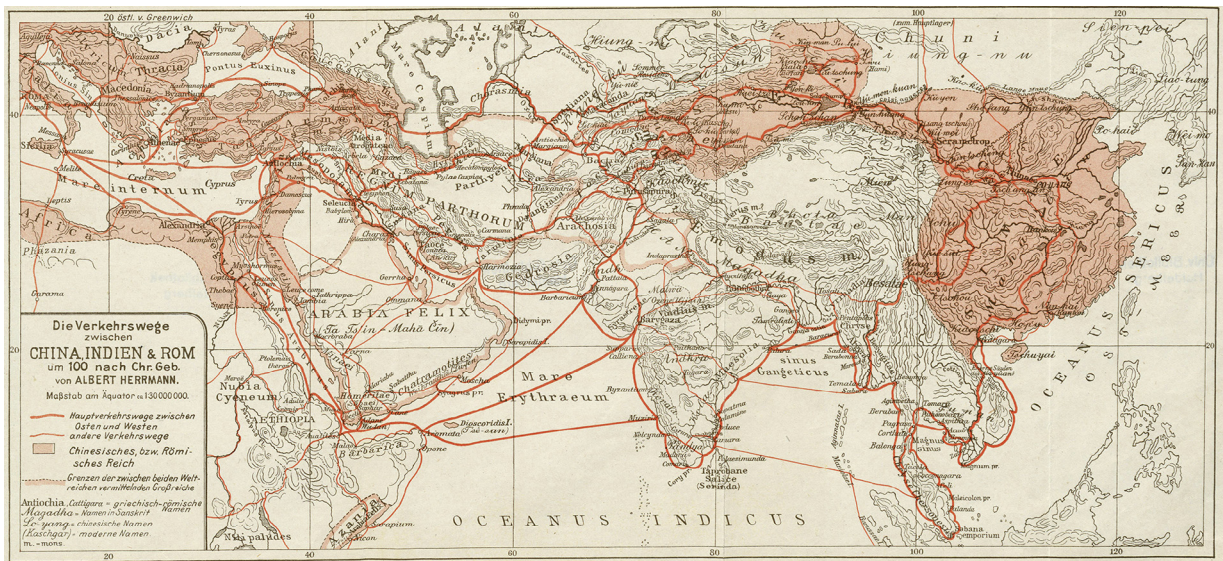


Fig. 1. Map of the Silk Roads (Herrmann, 1922).

hegemony in world history.³ This was due to its extension, its duration and, last but not least, its supposed civilising impetus. For this reason, in the pioneering studies on the ‘Silk Roads’ by German geographer and geologist Ferdinand P.W. von Richthofen (1833–1905) and, later on, in the works of Albert Herrman (1886–1945), we can find in-depth analysis of the relationships between the Central Asia/Far East and the West on the backdrop of the Roman domination over the Mediterranean.

Both in the famous 1877 article *About the Central Asia Silk Roads till the 2nd century AD* and in the dedicated chapter in the first volume *China. Results of his own travels* Richthofen approached the interactions between the Far East and the Roman Empire with a detailed analysis of the most important ancient sources (von Richthofen, 1877a: chapter 10, esp. 446–501). His philological approach is clearly expressed in the 1877 article: “While we shine a light there (scil. Central Asia) over the extended territories, it is crucial to simultaneously look back at the classical sources that already described the same places and the same communication routes, where the trade was taking place at that time” (von Richthofen, 1877b: 97; English transl. M. Galli).

Richthofen’s analysis is not simply focused on retracing the geographical and/or commercial aspects of the Silk Roads. The contacts and exchanges between the Roman Provinces and the political entities of Central and Eastern Asia are the unequivocal proof of the extraordinary activity of the trans-Eurasian networks (Hirth, 1885; Raschke, 1978; Seland, 2014). Moreover, these contacts prove the exceptional mobility and the great success in terms of economic profitability throughout the history of the Silk Roads.

The focus here is on the two opposite poles of this geographical and political system: the ancient Rome of the early centuries of the Empire (1st to 3rd century CE) and the Han dynasty in China (Scheidel, 2009). From the 2nd century CE, thanks to the expansion of the Han dynasty kingdom in

Central Asia, it is the start of a flourishing period: “Where the greatest World Empires (Weltreiche) – the Chinese and the Roman one, for a short period almost brushed against each other” (von Richthofen, 1877b: 107; English transl. M. Galli).

According to the German scholar’s conclusions, from 114 BCE to 120 CE (with a 56-year break in between) the Chinese sent their precious silk goods with caravans to the West in order to reach the city of Samarcanda. From here some would split and head towards Indian ports, passing through the Oxus territories; others would take the overland route through Parthia to get to the final destination, i.e. the Roman markets. Richthofen is conclusive: “Especially the markets of the Roman Empire became a great territory where to make great profits and gains” (von Richthofen, 1877b).

The study of the connections between Rome and Eurasia was further developed in a consistent way by the archaeologist and historical geographer Herrmann, who was one of Richthofen’s students.⁴ Herrmann’s cartographic reproduction (Fig. 1) fulfilled the need to visualise in a clear and detailed way the very complex networks where the overland routes and the maritime routes would intertwine in the most intricate combinations. This geographical and geological frame was significantly integrated with the latest archaeological discoveries of those years. All these new extraordinary finds introduced the wider archaeological perspective of the ‘material culture’ of the Silk Roads.

Almost a century after this pioneering phase of great scientific turmoil, the theme of ‘Roman Empire and the Eurasian networks’ is still of great relevance today. Adopting

³ On Colonialism and Classics: Goff (2005). On creation of ‘Silk Roads’: Chin (2013).

⁴ The titles of his works are quite self-explanatory: *The Ancient Roads between China and Syria* published in 1910; *The Silk Roads from Ancient China to the Roman Empire* in 1915; *The Trade Roads between China, India and Rome about 100 AD*: Herrmann (1922).

a post-colonial perspective, new approaches to the study of Roman society must be considered such as the discourse on globalisation and the approach of new economic theories (such as the New Institutional Economics) applied to the Roman Empire system.⁵ Furthermore, we also need to consider the discovery of new documents and archaeological findings in recent years and assess how they contribute to the study of Rome and its Eurasian connections (Mairs, 2013; Tomber, 2008).

3. Imperial Rome and the trans-Eurasian trade networks

The reconstruction of the trading routes represented a central theme in the history of the relationship between the Roman Empire and the Far East, but identifying the exact routes and trade itineraries was not an easy task.

A fundamental element for the historical reconstruction of the trans-Eurasian 'Silk Roads' has been the archaeological documentation coupled with the comparative analysis of the written sources, that is to say, those of the Roman and the Chinese authors. With regard to the neat distinction between overland and sea routes, we should imagine a plurality of itineraries and combinations of such routes. Chinese historians were fully aware of existing commercial sea routes linking Ta-Ch'in (the Roman Empire), Anhsi (Parthia) and T'ien-chu (India) (Leslie & Gardiner, 1996).

The most famous case of a trans-Eurasian expedition carried out on an overland route from the Mediterranean via the Tarim Basin to Chinese North-West Province is that of the well-known mission of Maes Titianos, according to the detailed account of geographer Marinus of Tyre (Bernard, 2005; P'iankov, 2015). This journey took two years and covered an itinerary of more than 10,000 km.⁶

Maes Titianos was most probably a Roman merchant, but of Greek descent born in Asia Minor, who moved to the city of Hierapolis in Roman Syria. Around 100 CE, Maes Titianos sent a number of agents in a mission towards the East that passed through Central Asia. The final destination of the expedition was the city of Sera Metropolis, most probably to be identified with the ancient city of Wu-Wei. It was assumed that Maes Titianos's main objective was to streamline the traffic in Chinese Silk, so the mission's main motive was economic.

These types of documented initiatives from the Western side have their corresponding counterparts in the Eastern: from Chinese sources (almost contemporaries of Maes) we learned of a similar expedition that took place in 97 CE during the rule of Emperor Ho (89–104 CE). Several Chinese texts concur on the existence of a trade envoy guided by Kan Ying that was sent to the West lands. The main objective of this mission was to reach Ta-Ch'in (the Roman Empire) (see Appendix text 1). The Chinese mission of 97 CE travelled mostly overland from Gandhara to Parthia, but did not reach its destination. The expedition stopped at the

Western frontier of Persia, in front of the Persian Gulf, where Kan Ying renounced crossing the Indian Ocean.

Regarding both the Eastern and Western historical documentation, it is safe to say that regardless of the difficulty and the length of the journey, there are important episodes that clearly prove that there were attempts to establish contacts between the opposite poles of the Silk Roads, during the 1st and 2nd century CE.

Today, thanks to the extended archaeological research of the last decades, we can grasp in fine detail what were the real infrastructures of the commercial contexts and of the commercial itineraries. With regard to the reconstruction of the sea routes, the best known system of trading and exchange routes is that of Egypt. We cannot but highlight the excavations in the important commercial ports of Berenike and Myos Hormos, on the Egyptian coast over the Red Sea (Poduké: Tomber, 2008; Berenike: Sidebotham, 1986, 2011). Astonishing findings also happened on the Western and Eastern coasts of India: it is important to mention the new archaeological discoveries at Pattanam (probably the famous ancient port of Muziris) and at Arikamedu, probably the ancient site of Poduké.⁷

To sum up, on the basis of the new archaeological data as well as the comparative interpretation of the historical documentation, we can reconstruct a much more tangible background of the historical as well as reliable archaeological and geographical landscape in which the Eurasian networks during the Early Roman Empire developed.

4. The impact of Far East trade on Roman economics: new evidence

Even if at the end of the 2nd century BCE the Ptolemaic dynasty gave a strong impulse to the commercial relationship with the East by intensifying the maritime trade through the Indian Ocean; however, there is no doubt that the largest expansion (in terms of contacts) happened at the beginning of the Roman Empire (Thorley, 1969).

As a matter of fact, during Augustan principate many political and military decisions are strategically aimed at promoting and protecting trade itineraries between Rome and the East (Fitzpatrick, 2011; Wilson, 2015). Diplomatic relationships were established especially with peoples like Parthians, Nabateans, some African and Arabian kingdoms that could act as intermediaries for exchanges between the West and the East; there are clear evidence of direct contacts with India and the Island of Taprobane (ancient Sri Lanka) (Young, 2001). Apart from Greek-Egyptians, Syrians and Microasiatic merchants, the trans-continental trade networks involved also rich businessmen from Campania and central Italy, as well as slaves or freedmen connected with the Imperial family.

The reception and consumption of Eastern goods as expression of luxuries in Roman society is widely reflected in the Latin Early Imperial literature. It is quite significant that the poets of the Augustan court mentioned many times India and the 'Silk people', that is, the Chinese.

⁵ On post-colonial discourse and studies of the Roman Empire: Mattingly (2013); on Roman Empire and globalisation: Hingley (2005); on new approaches to Roman economics: Lo Cascio (2006).

⁶ See The reconstructed route of Maes Titianos' caravan journey about 100 CE (Bernard, 2005).

⁷ Tomber, 2008; on archaeological investigations of the supposed ancient Muziris: Cherian (2014).

In order to exemplify the wide range and the extraordinary impact of the Eastern products on Roman markets around mid-1st century CE, it is illuminating that 140 products are mentioned in the famous nautical handbook called *Periplus Maris Erythraei* (dated ca. 70 CE) (Belfiore, 2004; Casson, 1989). These products can be arranged in four main categories: spices; high quantities of textiles and garments of different types (above all, Chinese silk, Indian cotton, and linen from Egypt); objects and precious materials (gold, silver, precious stones, etc.); food, cosmetics, colouring, etc.

With regard to the economic perspectives there are still some problems to be solved. Firstly, it seems that the selling and buying of these goods may have happened through barter or exchange with products from the West. Secondly, from a financial point of view, it is quite complex to assess the use of money in the East: the Roman currency was not apparently in use as such but more like in hoards. Proof of this could be the findings of great quantities of Roman coins near important commercial sites or routes.

When attempting an overall evaluation of the Rome's trade with the East, the historians have always tried to diminish its quantitative dimension. For example, the considerations of Roman authors like Pliny the Elder have been frequently underestimated (Raschke, 1978). Pliny described a considerable financial deficit because of Rome's trade with the East. The Empire had been running a trade deficit of 100 million sesterces per year for the import of luxury goods (half of that astonishing figure was destined to India alone!) (see Appendix text 2).

Recent studies draw attention on the depth and intensity of Rome's trade with the East and the extent of its Eurasian networks (De Romanis & Maiuro, 2015; Fitzpatrick, 2011). The approaches of the New Institutional economics applied to the Roman society help to focus on market mechanisms within the Roman Empire and to detect key elements of the financial system like loans, banks and investors (Bang, 2008; Lo Cascio, 2006; Temin, 2001).

New discoveries naturally bring us to revising or modifying the existing theories. As is the case with the famous so-called Muziris Papyrus, published in 1985 and kept in the Austrian National Library in Vienna. This document, which dates about the mid-2nd century CE, became one of the most significant pieces of evidence related to the Indo-Roman trade (De Romanis & Maiuro, 2015).

The content is concerning a big-sized ship named *Hermapollon*, used for trade between an Egyptian port and the aforementioned famous port of Muziris on the South-western coast of India. The text on one side of the papyrus was identified as a contract for a maritime loan between a rich ship-owner and a merchant; the other side contains weights and the monetary evaluation of the Indian cargo loaded at the port of Muziris.

The loan for the *Hermapollon* mentioned in the Muziris papyrus was calculated for a shipment worth 6,911,852 sesterces (before tax HS 9,215,803)⁸ and it was intended for the acquisition of precious goods. For a more general quan-

titative evaluation, we must not forget what Strabo wrote about the famous port of Myos Hormos on the Red Sea, from there 120 ships – every year – used to sail heading towards the Indian coasts (Strabo 2.5.12: Parker, 2002: 75; Wilson, 2015).

In conclusion, the Muziris papyrus revealed the existence of cargoes of such an extraordinary value and the extension of credit on such a level that Pliny's statement about the incredible trade deficit does not seem to be erroneous: against the backdrop of the estimate of Roman GDP of 10 billion sesterces (Temin, 2006), the Pliny's deficit amount of 100 million HS represents only one percent of GDP: it was therefore a sustainable trade deficit (Fitzpatrick, 2011: 31).

5. From China to Rome – from Rome to China: a short focus on Silk and Silk Roads

We cannot conceive describing the trade relationship between Rome and the Far East without considering silk, one of the most legendary goods of the Eurasian networks (Hildebrand, 2016: *non vidi*). If it is true that the Romans tended to identify goods with their supposed places of origin (for example pepper is associated with India, etc.), this identification is particularly evident in the case of China: the Latin word *Seres* used to designate the Chinese people. The same word was used as an adjective to identify the silk: *sericum* 'silk', *serica* meant 'silk garments' or also 'from the land of the *Seres*'. Finally the word *sericum* in the plural form *serici* was also a noun for 'merchants of silk'.

It is only at the beginning of the Roman Empire that this material becomes a widespread luxury good (Thorley, 1971). Hardly a coincidence then to find silk mentioned in the poems of Martial –the poet of the Roman 'daily life'– who, at the end of the 1st century CE, speaks of silk products in Rome, as such pillows or clothes, to convey an image of wealth and sophisticated lifestyle.

As far as the economic evaluation is concerned, it is worthwhile to mention the famous tax on the imported luxury goods from Alexandria (dated to the beginning of the 3rd century CE, see Appendix text 3) that concerned the precious textiles from the land of the *Seres* as an important source of revenue. On the list of the "articles subject to duty" it is possible to find the words "raw silk", "garments made completely or partly from silk", "silk yarn", together with other luxury goods coming from the Eurasian trade networks (Parker, 2002).

The Silk roads to the Mediterranean combined maritime and overland itineraries. From the production centres in the territories of North-Western China, the caravans moved westward through the overland roads of the Tarim basin. From the Pamir Mountains, silk passed through Bactria, avoiding Parthia, and then down the Hindu Valley to the Northern India ports. The *Periplus* testifies the existence of silk and silk products in the Indian ports of the Western and Eastern coasts of India. From Muziris different routes could be taken: the most direct was crossing the Indian Ocean to reach the Egyptian ports on the Red Sea, then across the desert up to Alexandria. Another possible route was leading carriers to the port of Charax Spasinou on the Persian Gulf, and then across the desert to Palmyra.

⁸ De Romanis and Maiuro (2015): 23, "the valuation was made after deduction of the 25 per cent customs dues, implying a valuation before tax of HS 9,215,803, and customs dues equivalent to HS 2,303,951 on this one cargo alone".

From this important city (a key hub for the caravan trade), the silk was then taken to the Syrian cities of Tyre, Sidon, Antiochia, famous centres for textile manufacturing.

With regard to the archaeological documentation of this precious textile, the most important site is certainly Palmyra. Extraordinary findings of ancient silk fragments have been made in the funerary contexts which include ancient silk fragments; thanks to the detailed analyses carried out by the German archaeologists it was possible to identify not only the remains of Chinese silk but also pieces of wild silk.

Another reason why the Palmyra silk fragments are incredibly important is the fact that, thanks to archeometric analysis, it is possible to reconstruct the different ways of processing silk material when arrived in the West. The textile products made of Chinese silk reached the West as finished goods with typical original decorations and embroidered Chinese letters.⁹ But we know from ancient Classical sources and from the Chinese ones that once arrived in the Western cities, the Chinese silk finished products were completely unravelled and rewoven (Schmidt-Colinet & Stauffer, 2000).

The new textile was extremely thin, shiny and transparent: this new creation was something that much more suited the Roman taste. It is highly significant that the beauty of these new 'Chinese' textiles, (re)manufactured in the Roman cities (Appendix text 4 a), could generate great interest and attraction in the very places from which that silk was originally being made, i.e. China. According to the brilliant suggestion of Thorley: "It was this that the Romans knew as silk, not the brocade with which we usually associate Chinese silk. This is what the Chinese were buying, totally unaware that they were simply buying back their own silk" (Thorley, 1971: 77–78; Leslie & Gardiner, 1996: 227).¹⁰

According to Chinese sources, the general idea was that the Romans knew and used not only wild silkworms (i.e. different species of Mediterranean silkworms), but also 'silk-worm mulberry tree' (i.e. the Himalayan-Chinese domesticated silkworm). Even if this last information is not true (this happened first only from the 6th century CE), the authors are aware of the unravelling and reweaving of Chinese Silk by the Romans (Appendix text 4 b). This last example gives us an important clue on how complex and evolving, absolutely not mono-directional were the interactions and the exchanges in the Eurasian networks during the first centuries of the Roman Empire.

In conclusion, we may ask questions about the city of Rome, the final destination of this incredible journey. It is very rare to find archaeological evidence of these precious but, at the same time, easily-perishable materials in the city. Nonetheless, recent discoveries made in recent years provide new information about imported luxury goods from Far East.

This is the case of the remains of a silk funerary veil found together with Sri Lanka sapphires. Approximately 26 km south-

east far from modern Rome, at the town of Colonna, a monumental grave of the middle 3rd century CE was accurately excavated in 2005: the sarcophagus was found with remains of a rich Roman lady, dressed with a silk veil decorated with a gold-strip and wearing a beautiful gold necklace or diadem decorated with sapphires and probably originally in combination with pearls.¹¹ The style of the jewel and the presence of the very rare Ceylon sapphires (and probably of Indian pearls) recall examples attested in Palmyra and the Syrian jewellery of the 2nd–3rd century CE (Altamura, Angle, Cerino, De Angelis, & Tomei, 2013). We can consider this finding as one of the rare pieces of evidence of the trade and cultural Eurasian connections beyond the frontiers of Rome.

Conflict of interest

The author confirms that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

Appendix: Classical and Chinese sources quoted in the text

1. Hou-Han-Shu 88 (Lieh-Chuan 78). English transl. Leslie and Gardiner (1996): 43. 45–46.
 - b. In the 9th century (97 C.E.), Pan Ch'ao despatched his adjutant Kan Ying all the way to the coast of the Western Sea and back. Former generations had never reached any of these places, nor has *Shan-(hai)-ching* given any details (of them). He made a report on the customs and topography of all these states, and transmitted an account of their precious objects and marvels. (...)
 - c. (...) He arrived at T'iao-chih (Characene), overlooking the Great Sea. When about to take his passage across the sea, the sailors of the western frontier of Parthia told Ying: "The sea is vast. With favourable winds, it is still only possible for travellers to cross in three months. But if one meets with unfavourable winds, it may even take two years. It was when he heard this that Ying gave up."
2. Pliny the Elder, Natural Histories (about 70 CE). English transl. Parker (2002): 73.

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But the title 'happy' belongs still more to the Arabian Sea, for from it come the pearls which that country sends us. And by the lowest reckoning India, China and the Arabian peninsula take from our empire 100 million sesterces every year – that is the sum which our luxuries and our women cost us; for what fraction of these imports, I ask you, now goes to the gods or to the powers of the lower world?

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And it will not be amiss to set out the entire route from Egypt, now that reliable information of it is available for the first time. It is a topic of importance, given that in no year

⁹ Chinese Silk textile found in Palmyra of the Later Han Dynasty (Schmidt-Colinet & Stauffer, 2000).

¹⁰ Hirth (1885, 251–260) pointed out that all the precious goods mentioned in the Chinese sources were not manufactured in China, but came from territories beyond the sea, either by sea or by land, among them are first Ta-Chin products to be mentioned, which were manufactured in Syrian and Microasiatic as well as Egyptian textile cities, probably "that Syrian (Antiochian, Tyrian, Alexandrian) merchants were in the habit of exporting it to China)".

¹¹ Necklace of gold with sapphires and probably with pearls from a monumental Roman grave of a rich woman (middle 3rd century CE, ancient necropolis of Colonna – Rome) (Altamura et al., 2013).

does India absorb less than fifty million sesterces of our empire's wealth, sending back merchandise to be sold among us at a hundred times its original cost.

3. Tax on luxuries–goods of Alexandria (beginning of the 3rd century CE = Digestus 39.4.16.7). English transl. Parker (2002): 41.

Cinnamon, long pepper, white pepper folium pentasphaerum (unidentified spice), barbary leaf, putchuk (costum and costamomum) spikenard, Tyrian cassia, cassia bark, myrrh amomum, ginger, cinnamon leaf, aroma Indicum (unspecified Indian spice), galbanum, asafoetida, aloe-wood, barberry, astragalus, Arabian onyx, cardamom, cinnamon bark, fine linen, Babylonian furs, Parthian furs, ivory, Indian iron, raw cotton, lapis universus (unspecified precious stone), pearls, sardonix. Bloodstones, hyacinthus (precious stone, perhaps aquamarine), emeralds, diamonds, lapis lazuli, turquoise, beryls, tortoise-stone, Indian or Assyrian drugs, raw silk, garments made completely or partly from silk, painted hangings, fine linen fabrics, silk yarn, Indian eunuchs, lions and lionesses, leopards, panthers, purple cloth, cloth woven from sheep's wool, orchil (rouge), Indian hair.

4. Sources on the unravelling and reweaving process of Chinese silk by the Romans.

A. Lucan, Pharsalia 10. 141–143. English transl. Leslie and Gardiner (1996): 228.

(Cleopatra's) white breasts were revealed by the fabric of Sidon, which, close-woven by the shuttle of the Seres, the Egyptian needle-worker pulls out, and loosens the thread by stretching the stuff.

B. Wei-Lüeh. Chapter 330. Paragraphs 1.26.28. English transl. Hirth (1885): 80; commentary Hirth (1885). 251–260; Leslie and Gardiner (1996): 226–227.

(1) Ta-ts'in, also called Li-kan, has been first communicated with during the later Han dynasty. ... (26) with regard to the his-pu (fine cloth) manufactured on their looms they say they use the wool of water-sheep in making it; ... (28) They always made profit by obtaining the thick plain silk stuffs of China, which they split in order to make foreign *ling kan wen* (foreign damask-ling-and purple dyed-kan-mustered goods-wen-?) and they entertained a lively trade with the foreign states of An-hsi (Parthia) by sea.

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