

Materials of Eastern Origin Discovered in the Former Territory of the Roman Empire, with India and China in Focus: Examples of Direct and Indirect Interactions from an Archaeological Perspective.

Materiais de origem oriental descobertos no antigo território do Império Romano, com foco em Índia e China: Exemplos de interação direta e indireta de uma perspectiva arqueológica.

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Recebido em 10 de julho de 2020; Aceito em 17 de novembro de 2020.

DOI: 10.12957/nearco.2020.57505

Abstract

The study on links between the Roman Empire and the East can be considered a popular yet complicated field of research posing several problems and questions. The role of archaeological data – particularly of objects from the East – is somewhat still less recognized compared to texts. Thus, the paper puts together a range of evidence of South Asian and Far Eastern origin discovered in provinces of the Roman Empire in order to illustrate the variety of materials and the different focus of interactions.

Keywords: Archaeology; Roman Empire; South Asia; China; cross-cultural interactions.

Resumo

O estudo de relações entre o Império Romano e o Oriente pode ser considerado popular, porém representa um complicado campo de estudos com diversos problemas e questões. O papel dos dados arqueológicos – especialmente os objetos do Oriente – é de certo modo ainda menos reconhecido comparado aos textos escritos. Sendo assim, este artigo reúne uma série de evidências oriundas do Sul da Ásia e do Extremo Oriente descobertas em províncias do Império Romano, objetivando ilustrar a variedade de materiais e os diferentes focos de interações.

Palavras-chave: Arqueologia ; Império Romano; Sul da Ásia; China; Interações culturais.

Introduction

Studying Eastern contacts of the Roman Empire, particularly the Indo-Roman (Mediterranean-Indian Ocean) trade is a very expansive field of research, in which the vast

textual evidence (both Western and Eastern i.e. typically Chinese) has a pivotal role.¹²³ At the same time, significance of archaeological testimony of these interactions regarding their type of material (genuine or raw), although the focus of contacts (direct or indirect) has less been articulated, and most studies were limited to the Indo-Roman data. Whereas further systematization of archaeological remains both from South Asia and beyond not only qualify the descriptions provided by written sources, but are also essential in order to build a more comprehensive database based on techno-stylistic categories, through which the different levels of interactions and cultural transfers between the various social groups of the Mediterranean, South Asia, Southeast Asia and China is able to be better understood, and also a more exhaustive sequence of cultural exchange could be set up.¹²⁴

The primary aim of the paper is to (re-)introduce the most striking archaeological objects of Eastern origin – particularly from South and East Asia – focusing on their material and the directness of interactions, and thus, do highlight some new possibilities for further research. Thus, not a list of archaeological finds nor a comprehensive review will be given, but rather a range of evidence with great research potentials yet to be fulfilled.

Direct interactions between the Roman Empire and the East: Materials from/through India

Direct links can be considered a relatively active type of contacts, in which the place of arrival had already been determined at the point of departure, or at least some knowledge on the final destination of the sent objects existed as early as the departure. Existence of direct contacts can be seen particularly during the (early) Roman imperial period between the Mediterranean world and the East, with relative certainty as far as the Western coast of India, while frequency of direct contacts with the Eastern coasts is more debatable.¹²⁵ Besides texts,

¹²³ Several great works mostly from a comprehensive historical and economic view have been published over the vast history of research. Some of the latest inter alia: McLaughlin 2016; Evers 2017; Cobb ed. 2019; Beaujard 2019; For an thorough review of Eastern commodities based on the vast textual evidence see: Parker 2002.

¹²⁴ A structure of techno-stylistic categories of Western objects discovered in South Asia, Southeast Asia and China along their possible integration into local repertoires has been built by Krisztina Hoppál, Bérénice Bellina and Laure Dussubieux. See: Hoppál et al. forthcoming

¹²⁵ E.g. E. Seland sees them quite infrequent, at the same time – as P. Beaujard has pointed out „ *If the Roman presence in the East was really as “infrequent, or even exceptional” as Seland suggests (2007: 79), why then did the Periplus of the Erythraean Sea bother to list six places on the southeast coast of India*”

intensification in interactions between the Imperium (typically the Mediterranean world) and India during the last centuries BC can also be seen through a number of archaeological evidences discovered in regions of the Mediterranean,¹²⁶ but the most glaring in the archaeological data is the period from the 2nd-1st BC followed by the 1st century AD peak.¹²⁷

During this period both genuine objects of Eastern origin (isolated objects and collective finds) and raw materials can be discovered in several provinces of the Imperium. A very illustrative and well-known example of isolated objects is the Indian ivory figurine possibly part of a handle or furniture from Pompeii:¹²⁸ Several finds of direct contacts – also known from textual evidence¹²⁹ – were discovered in Mediterranean port sites, among which Berenike¹³⁰ and Quseir al-Qadim¹³¹ in Egypt are the most notable examples. Rouletted Ware and Paddle-impressed Ware discovered at these sites are illustrating the existence of early links.¹³² The Tamil-Brahmi graffittos found in both Berenike and Quseir al-Qadim are also often cited examples of Indo-Mediterranean contacts, but the presence of any of these materials at port sites does not imply transfer of any kind.¹³³ Excavations have revealed a wide range of East arrived perishable goods from both sites, such as the notable black pepper, rice, coconut, bamboo, teak etc.¹³⁴ Among these examples, unquestionably remains of black pepper occur most often in archaeological data of the Imperium.¹³⁵ The spice was found in relative abundance

Seland 2007, 79-80; Beaujard 2019, 398. Interpretation of Arikamedu is particularly divisive. See e.g. Begley 1983; Seland 2007, 70; Dayalan 2019; Fauconnier 2012, 89-90. etc.

¹²⁶ For early exchange of plants and other goods for consumption e.g.: Fuller 2011: 352-353. However, as M. Cobb has pointed out in case of some 3rd-2nd century BC textual references, it might be questioned whether these products were genuinely Indian (as we would understand it) or, in fact, derived from places like East Africa." Cobb 2019: 21. Pre-Roman evidences of interactions are more abundant in the South Arabian regions (see below), where ports also acted as intermediaries between India and Egypt. Cobb 2019: 20-21.

¹²⁷ E.g.: Cobb 2019.

¹²⁸ See Cimino ed.1994: 119-122; Berry 2007: 200; Evers 2017: 22-46. all with further bibliography.

¹²⁹ Most recognizably from the Periplus Maris Erythraei. See: Casson 1989.

¹³⁰ Sidebotham 2011.

¹³¹ Peacock et al. eds. 2011.

¹³² Tomber 2000; Tomber 2002, 27; Sidebotham 2011, 231; Schenk 2015.

¹³³ Moreover, as F. M. Asher has pointed out, "The evidence, in other words, supports only Indian trade by sea, not Indian traders at sea." Asher 2019, 158. The silver coin of King Rudrasena III of the Kshatrapas of western India issued in 362 from in Berenike's fifth-century church is obviously a much later example. Sidebotham 2011, 240.

¹³⁴ See: Cappers 2006 and van der Veen 2011.

¹³⁵ For a detailed summary see e.g. Cobb 2018a.

in both Berenike (e.g. 7.55 kg of black peppercorns from one single jar)¹³⁶ and Quseir al-Qadim.¹³⁷ Wide range of availability and accessibility of pepper can not only be seen via textual references but also through epigraphical data, such as the wooden tablet from Vindolanda on purchasing pepper by a soldier – interestingly – not of a high rank stationed at the fort,¹³⁸ and also on a Roman lead object found in Trier used as a label for appr. 2,6 kg pepper,¹³⁹ or through a number of unintentional deposits of mostly smaller amounts of peppercorns¹⁴⁰ from Roman Germany, France, Britain and Croatia.¹⁴¹ The case of piperatoria (suggested to be pepper shaker) is more controversial, phytolith analysis might confirm its function.¹⁴²

Both spices, plants and cotton too, are examples of direct trade, the latter posing both opportunities and challenges as study of weaving patterns is necessary in order to differentiate Indian made fabrics from Mediterranean (Egypt) produced textiles.¹⁴³ More easily identifiable, although 5th century example are the resist-dye fragments from Berenike,¹⁴⁴ to which a strikingly similar specimen was discovered in Karadong, Xinjiang from 3rd century context.¹⁴⁵

Indirect interactions between the Roman Empire and the East: Materials from further East

In contrast of direct contacts, indirect contacts are nominally more passive, and a series of middlemen were involved in transferring the objects, and the final destination was most likely only determined by (one of) these mediators. These indirect links do not imply close interactions with the Mediterranean world/ Roman Empire. In the case of Eastern objects originating beyond South Asia, mostly indirect contacts can be assumed. Concomitantly, occasional¹⁴⁶ direct visits

¹³⁶ Cappers 1998, 289-330; Sidebotham 2011, 224-225.

¹³⁷ van der Veen 2011, 41.

¹³⁸ Bowman and Thomas 1994, 135-138.

¹³⁹ Schwinden 1983, 22; Cappers 2006, 114; Cobb 2018a, 538.

¹⁴⁰ An example of noticeable amounts are the 52 peppercorns discovered in the harbor area of Straubing (Germany), and another one of 70 peppercorns at Cuijk (Netherlands) from a pit of 3rd-4th century dating. See: Küster 1995, 137; Cobb 2018a, 538; Heinrich 2017, 26; Aarts et al. 2017.

¹⁴¹ For a summary: Cappers 2006, 117-119; Livarda 2011, 156-160; Robinson and Rowan 2015, 106-109.

¹⁴² See McDuff 2019, 25-26.

¹⁴³ See e.g.: J. P. Wild and F. Wild 2005.

¹⁴⁴ Sidebotham 2011, 243; J. P. Wild and F. Wild 2014, 223-224. Other resist-dyed fragments of Indian origin from the same site: J. P. Wild and F. Wild 2005, 15-16.

¹⁴⁵ Desrosiers and Debabain-Francfort and Idriss 2001; Desrosiers and Debabain-Francfort 2016.

¹⁴⁶ The *Liang shu* indicates more often visits from the West: „[...]其國人行賈，往往至扶南、日南、交趾，其南徼諸國人少有到大秦者。 *Their people* [from Daqin accepted to refer to the Roman Empire] *are traders and often visit Funan* [Cambodia, the southern part of Laos and Vietnam, and the southeastern

to (but very rarely from¹⁴⁷) these areas might have taken place, as both Chinese and Western texts suggest, such as Andun 安敦's envoy to China mentioned by Chinese standard histories,¹⁴⁸ or the Macedonian merchant, Maes Titianus' (or his agents'), travel to the East cited by Ptolemy,¹⁴⁹ although none can be seen via archaeological evidence.¹⁵⁰ Moreover, these references, despite their interest per se, do not provide information on their possible local consequences. Thus, there is no evidence that they generated transfers of any kind.

An exceptional example of isolated finds is the nephrite scabbard slide of Chinese origin from Čatalka, Stara Zagora region, Bulgaria. The object was placed into the richly furnished burial of a *cataphractarius*, a heavily armoured type of Roman cavalry, dated to the end of the 1st century AD—beginning of the 2nd century AD.¹⁵¹ The nephrite object was placed on a richly decorated iron sword interpreted as Sarmatian type and served as a belt loop at the middle of the sheath. The yellowish-greenish stone features two animals¹⁵² carved on its surface, the raw material of the motif slide coming from the Kunlun Mountain 昆仑山 and could be extracted all along the Tarim river, Xinjiang, China.¹⁵³ The nephrite scabbard slide differs both stylistically and materially from the rest of the ornaments, and it is dated to the Han Dynasty. Identification of

part of Thailand] and *Rinan* [its seat of government is located where the Quảng Trĩ and Cam Lộ rivers meet in the present Bình Trĩ Thiên Province of Vietnam] and *Jiaozhi* [its seat of government is located to the northwest of Hanoi.], but people of various countries beyond our southern border rarely reach Da Qin." Original and translation: Yu 2013, 119-120.

The *Liang shu*, another piece of the standard histories, is dated to the 7th century and refers to the period between 502 and 557 which is closer to the βασιλεία τῶν Ῥωμαίων than the Roman Empire. Although the work partly summarizes earlier sources, unlike other historiographies it does not give a separate *Daqin* chapter but integrates these passages into the section of Tianzhu 天竺 i.e. India. Among information repeated in Tang period, a number of new materials can also be detected. For reliability see: Hoppál 2019.¹⁴⁷ Florus' account on the embassy sent by the Seres i.e. Silk people to Augustus' court (Florus Epit., II,34) is most likely one of the author's typical hyperbolisms. E.g.: Coèdes 1910, XII; with other explanation: Malinowski 2012, 21. Moreover, identifying the Seres with Chinese people is very problematic, as the well-known term was rather used as a vague ethnonym than a well-defined title designating a state. See: Hoppál 2015 and 2018.

¹⁴⁸ E.g. in the *Hou Han shu* 後漢書, see e.g.: Hoppál 2011 and 2019.

¹⁴⁹ Ptolemaios Geog., I, 11,1-7. See e.g. Dan 2013; Tupikova et al. 2015 with further bibliography.

¹⁵⁰ At the same time, recent results of bioarchaeology might provide more evidence of Eastern arrivals. See below.

¹⁵¹ Bujukliev 1986; Werner 1994, 269-73.

¹⁵² Possibly dragons, however several other identifications have been used. For a summary: Gonthier et al. 2014, 8.

¹⁵³ Werner 1994, 274-278; Gonthier et al. 2014, 6. Details on its archaeological distribution and analogies are also included.

the owner is also problematic; he seems to be a high-ranking Thracian officer of the Roman army buried (partly) with Sarmatian artefacts (trophies or gifts?).¹⁵⁴ Notwithstanding the nephrite slide's importance it does not confirm contacts between China and the Imperium, but does offer an understanding on links between China and the Sarmatians, all the more so since objects of Chinese origin are not rare in Sarmatian assemblages.¹⁵⁵ At the same time, it might be worth an in depth study of the possible techno-stylistic connections between a Han Dynasty jade slide from a Chinese collection (CZ.14) and its analogies made of ivory and bone from Khisfine, Syria (S.1-2), Vimose, Fyen, Denmark (E.2), Novae, Bulgaria (E.35) and Intercisa, Hungary (previously interpreted as hair ornament)¹⁵⁶ since those are all cited as being 'nearly identical' in the monumental work by W. Trousdale.¹⁵⁷ Moreover, the Novae slide has even been referred to as an imitation of the previously mentioned Chinese piece by É. Gonthier et al.¹⁵⁸

Other, previously often cited yet very dubious materials of Far Eastern origin are bronze ritual vessels (said to be) discovered in the former territory of the Imperium. In 1885 a Chinese *hu* vessel 青铜壶 was presented to the British Museum by Henry Willett, and was claimed to be unearthed in the medieval Dane John Canterbury.¹⁵⁹ Although the object has its analogies dated to the late Spring and Autumn–early Warring States period (6th–5th century BC), L. Ashton and B. Gray in their work entitled *Chinese Art* raised the possibility of Han dating (206/202 BC–220 AD). Furthermore, Ashton and Gray theorized a wealthy Roman as the possible owner of the vessel,¹⁶⁰ although both the context and reliability of the finding is questionable as it is very unlikely that the object could be an ancient or medieval arrival.¹⁶¹ Another Chinese *hu* vessel from the Hellström Collection has a similarly doubtful background. It was said to be discovered in the gardens of Mons Esquilinus, and was dated to the Han Dynasty by B. Vessberg. Vessberg has connected it to a wealthy Roman collection¹⁶² similar to the one in Cicero's *In Verrem*.¹⁶³ A third

¹⁵⁴ Werner 1994, 272-273, 281-282; Gonthier et al. 2014, 7;

¹⁵⁵ E.g.: Werner 1994, 274; Simonenko 2001; Treister 2018.

¹⁵⁶ Sági 1954, 72, plate XX 3.

¹⁵⁷ Trousdale 1975, p. 221 for the Vimose piece; p. 229 for the Novae find; p. 236-237 for the Khisfine pieces, p. for the Chinese jade slide p. 217.

¹⁵⁸ Gonthier et al. 2014, 11.

¹⁵⁹ Jones 1990, 94-95. entry 88.

¹⁶⁰ Ashton – Gray 1953. 58. Also: Whitehouse 1972, 66.

¹⁶¹ Jones 1990, 95.

¹⁶² Vessberg 1937.

¹⁶³ Cicero, *In Verrem* II, 2, 19; IV, 23,44;59.

bronze ritual vessel, a fragmentary *gu* 角瓜, now in the Museo Nazionale d'Arte Orientale was said to be discovered among the remains of a sunken Roman cargo ship near Ostia in 1941.¹⁶⁴ The uncertain context of these objects make any attempt for further interpretation somewhat difficult, however it is possible they are all modern arrivals rather than isolated finds of Sino-Roman (indirect) connections.

Other materials of Far Eastern origin demonstrate greater potential for further research, as well as several complications.¹⁶⁵ To wit, one of the most notorious examples is silk – often being connected to China regardless its true origin. However, due to their highly perishable nature of it as a material, apparent pieces of China-produced textiles are very rare in ancient textile assemblages of the Roman Empire. Therefore, it is not cognizant that the remains of *jīn* 錦 textiles discovered in the ancient caravan city of Palmyra are highly recognized in archaeological literature.¹⁶⁶ Very illustrative examples were discovered in the merchant, Kitot's tower tomb dated to the mid-1st century AD, which contained two exceptional fragments of *jīn* fabrics with Chinese characters.¹⁶⁷

In Palmyra, locally made textiles featuring elements of Chinese silk motifs and patterns, mostly made of local raw material by local techniques but in Eastern style can also be observed. A very striking example is the indigo dyed woollen fabric of fine gauzelike quality decorated with lozenge pattern and filled with double piles (inv.no.: PAM K 7.1-3) from again Kitot's tower tomb. In this case the decoration was not executed by tapestry technique but invowen with an additional thread.¹⁶⁸ Yet again, such examples do not conclusively imply necessarily sustained or close interactions, nor real transfer, despite the fact that inspiration on weaving technique from Han damasks might be detected, because the „*technology itself traces back to western roots*”¹⁶⁹. It is also interesting to note, that an example of adaptation of Western elements into local raw material by using local techniques can be detected on a Chinese polychrome silk textile of typical

¹⁶⁴ Petech 1950; Li and Allan 1995, entry 28; Lawton 1997, 167.

¹⁶⁵ E.g.: Hildebrandt 2017 a and b.

¹⁶⁶ See Hoppál: 2015: 241–245; Żuchowska 2013: 133–154; Żuchowska 2015: 143–162. All with further bibliography.

¹⁶⁷ Schmidt-Colinet and Stauffer and Al-As'ad 2000: 142; Falkenhausen 2000: 66–70, 74; Hoppál 2015: 241–245.

¹⁶⁸ Stauffer 1996: 427; Schmidt-Colinet and Stauffer and al-As'ad 2000: Kat.54, 113-114, Abb.51, 74, TAF 68c-69a.

¹⁶⁹ Stauffer 1996, 427.

Chinese technique decorated with grape-picking human figures, these Western artistic elements, discovered – surprisingly – in Palmyra. At the same time, as M. Żuchowska has concluded, „since this scene has no parallels in the Chinese art and craft, it must have been observed on a foreign product and then copied or imitated in the jin pattern.”¹⁷⁰⁾

As it is well recorded in texts and archaeological data, silk threads were also used (and re-used) as raw materials, and both tabbies and yarns could be imported. At the same time it is crucial to take into account, that two kinds of silk were known and used in the Roman Empire: domestic/cultivated/genuine silk and wild silk.¹⁷¹ The former is generally connected to the species of *Bombyx mori*, while the latter comes from the various species of wild moth.¹⁷² These different kinds of silk show certain differences in their characteristics. Controlled cultivation of *Bombyx mori* silk is generally attributed to China, although from the 3rd century local sericulture also started in Xinjiang.¹⁷³ Wild species of silk moths were relatively widely spread in Antiquity, such as Middle and East Asia and the Mediterranean area.¹⁷⁴ In order to identify the raw material of which a fabric was made (thus differentiate *Bombyx mori* silk from other silk types) a detailed examination conducted by experts specialized in ancient textile research is needed, which is often achieved by using methods of natural science. At the same time, because of the preservation and condition of many of the silk remains discovered in the former territory of the Roman Empire, as such the analyses cannot be carried out. Palmyra is again a positive example in this regard. For instance, two examples of damask made of fine mulberry silk, which are considered as products made in Syria using imported Chinese yarn were found.¹⁷⁵ Examples of wild silks made of *Antharaea* species cocoons, which are indigenous in Southern China and South Asia were also discovered.¹⁷⁶

¹⁷⁰ In detail: Żuchowska 2015.

¹⁷¹ The question of sea-silk production in Antiquity is rather problematic. Hoppál 2015, 238–239.

¹⁷² Zhao 2017, 100.

¹⁷³ Zhao 2017: 102.

¹⁷⁴ The famous story by Procopius about how Christian monks had smuggled silk worms to the court of emperor Justinian in the 6th century meaning the start of Byzantine sericulture has still not been convincingly challenged by archaeological materials. Procopius, *De Bellis*, IV. (VIII.) 17.1–7. See also: Hildebrandt 2017a: xi.

¹⁷⁵ One is dated to the late 1st, the other is to the early 2nd century AD. Schmidt-Colinet and Stauffer and al-As’ad 2000: 53-55; Kat. 319, 159; Kat. 453, 178; Żuchowska 2016: 147.

¹⁷⁶ Żuchowska 2016:147. E.g. Kat. 313 of possibly Indian origin dated to late 1st century AD. Schmidt-Colinet and Stauffer and al-As’ad 2000:157.

Besides significant trading nodes, evidences of using raw or recycled silk of Eastern origin were uncovered in both significant and smaller sites of the Roman Empire. Such as Rome, where scanning electron microscope was applied to identify *Bombyx mori* silk fibre in case of a fabric discovered in the gallery 28 of the Catacombs beneath Sant'Agnese, Via Nomentana 351.¹⁷⁷ Because of the lack of such analysis, fibre distinctions (i.e. being Chinese or wild) in case of the textile fragments from sites in Pannonia are less certain. However, those typically 4th century provincial burials show the relative commonness of silk materials, and present their integration into the context of Roman textile repertoire without any sense of their eastern origin.¹⁷⁸ These examples of Far Eastern raw materials or recycled raw materials by local techniques and in local/regional style indicate indirect contacts and no social interactions.

Potentials for further research

Other raw materials, particularly precious and semi-precious stones provide numerous and promising possibilities of studying interactions between the Mediterranean world and South Asia (and beyond). Such as in the case of red gemstones identified mostly as garnets suggest the existence of sustained contacts between the Mediterranean world (and other parts of Europe) and southern South Asia. These gemstones were relatively widespread in Europe during the migration period (5th-6th century AD), typically connected to Germanic people, used as inlay decoration of fine metalwork, often by the application of cloisonné technique. The comparative analysis of the mineral inclusions and the concentration of the major constituents pointed out that certain types originated from alluvial deposits of South India and Sri Lanka.¹⁷⁹ Moreover, excavations of the site Diana in Alexandria dated to the late Antiquity revealed flourishing lapidary activity identified as a possible link between the production and commercial chain of such cloisonné jewellery.¹⁸⁰ The accessibility of the material is clearly illustrated by the Carpathian Basin examples, where for instance loose, i.e. unmounted pieces of garnet of

¹⁷⁷ See: Mitschke and Paetz gen Schieck 2012:122-123.

¹⁷⁸ Hoppál 2020.

¹⁷⁹ For such comparative analyses e.g.: Calligaro et al. 2002; Périn et al. 2007; Calligaro et al 2008; 2010; Gilg et al.2010.

¹⁸⁰ Rifa- Abou El Nil and Calligaro 2020.

possibly southern Indian origin were discovered as sole remains in a robbed grave of a 5th century AD cemetery in Hajdúnánás (Hajdúnánás-Fürj-Halom-dúlő site, Hungary).¹⁸¹

Other stones of Eastern origin might also provide further potentials. Such as jade coming from mineral sources of Burma, China, or Kashmir and Siberia; however only very small number of the material are known from Roman context to date. A recently published example is an unworked piece excavated in Qesir al-Qadim (L139 from Tr. 2B 2304), and another small piece is known from the ancient quarry of the Mons Claudianus (Egypt).¹⁸²

Studying beads of Eastern origin has great research potentials as well, such as the stupa beads associated with Buddhism.¹⁸³ These beads, along with other ‘Indo-Pacific beads’, have been discovered in relatively great quantity at Marsa Nakari, Egypt from 4th century AD context, not only illustrating connections with Sri Lanka, but – as J. Then-Obłuska highlighted – also raising the question of potential Sri Lankan residents at the site.¹⁸⁴ However, further comparative research would be needed to confirm this theory. Besides Roman period sites, beads of Indo-Pacific origin have been identified in a Merovingian grave at Saint-Laurent-des-Hommes (Dordogne), France, also illustrating the possibility of sustained contacts with South Asia.¹⁸⁵

Mitochondrial genomes and isotopes also provide significant research opportunities as those might reveal relationships and geographic origin of non-local individuals or groups. Such as in case of the 1st–4th century Roman cemetery at the imperial estate of Vagnari, Italy.¹⁸⁶ Preliminary DNA by T. Prowse et al. had already identified an individual (F37) of East Asian affiliation.¹⁸⁷ More recent analyses confirmed the above results and also showed that the ancestors of an adult male (F34) – who himself was most likely born at or around Vagnari – and also the 45-49 years old female (F37) originated from Eastern Eurasia (possibly Asia proper) sometime prior to the 1st century AD. These two individuals might also share the same maternal ancestor.¹⁸⁸ Both were excavated from Trench 9 in close proximity to one another. The skeletons

¹⁸¹ Horváth and Bendő 2011.

¹⁸² Peacock 2011, 122.

¹⁸³ Francis 2002, 137-138.

¹⁸⁴ Then-Obłuska 2018, 278-279, with other examples of Asian beads and further bibliography.

¹⁸⁵ Poulain et al., 2013, 78.

¹⁸⁶ Small et al. 2007; Brent and Prowse 2014.

¹⁸⁷ Prowse et al. 2010, 186-187, 189-191.

¹⁸⁸ Emery et al. 2018, 204-206.

were placed in a pit, covered by *tegulae*, which considered the most common type of graves for ordinary individuals (so-called *alla cappuccina*) during this period. The burials had West-Southwest orientation and are dated to the 3rd century AD. Although other graves mostly contained local ware, the male was buried with an African red slip dish of Hayes form 16, and the women with an African cooking pot lid of Hayes form 196B with a nail.¹⁸⁹ African imports were not rare among grave goods of the cemetery which „suggests that the community at Vagnari was living at a reasonable level of subsistence, in spite of the physically demanding lifestyle [...]”¹⁹⁰ Besides the African ware, the man also had an iron cutting tool at the head, fragments of a sandy grey casserole with a nail under the pot,¹⁹¹ and several small iron nails of a hobnail shoe at the feet.¹⁹² Exact social status of the two individuals is unknown as it is not possible to distinguish between slaves, freedmen or tenants at Vagnari based on current archaeological evidence,¹⁹³ but they were buried similarly to other individuals of the cemetery.

Skeletal morphology applied on the 2nd–4th century AD cemetery of Southwark, London¹⁹⁴ also revealed that two individuals, a 18-25 and a 26-35 years old male had possible Asian ancestry. The younger – whose grave is dated to the 2nd century AD – also had a diastema between his first maxillary incisors, and both him, both the older – whose grave is dated to the 4th century AD – shared the same diet as others from the cemetery: consuming local food.¹⁹⁵ It has also been suggested that all non-local individuals „had lived in Londinium for several years before their death, but had migrated there after the age of enamel formation.”¹⁹⁶ At the same time, the above bioarchaeological results are needed to be perceived cautiously as the applied method is a statistical modelling which was based on modern populations.¹⁹⁷

Explaining the existence of these individuals in Roman cemeteries is still problematic, it is unclear whether the move of their ancestors was forced or willingly initiated,¹⁹⁸ and those

¹⁸⁹ Small et al. 2007, 127-128, 136.

¹⁹⁰ Small et al. 2007, 138. For skeletal pathology of the two individuals: Small et al. 2007, 152, 159.

¹⁹¹ These pots associated with iron nails might have been used for magical purpose. Small et al. 2007, 142, 145.

¹⁹² Small et al. 2007, 139, 141, 144, 146-147, 163-164, 173-174.

¹⁹³ Prowse et al. 2010, 191.

¹⁹⁴ Ridgeway et al. 2013.

¹⁹⁵ Redfern et al. 2016, 15-16.

¹⁹⁶ Redfern et al. 2016, 19.

¹⁹⁷ Redfern et al. 2016, 19.

¹⁹⁸ Emery et al. 2018, 205.

people were enslaved, or involved in long-distance exchange, or were mere travellers. What can be inferred from the Vagnari graves is that the two individuals with non-local ancestors were buried according to local customs along with local grave goods, which might reflect on how they were received by the local community.

Besides studying raw materials, beads and skeletal remains of Eastern origin from Roman and post-Roman context, integration of the rich corpus of evidence from the southern parts of Arabia (particularly Oman and Yemen) and Eastern Africa would also provide new perspectives. In addition to well-known and often cited examples, such as the Indian statuette from Khor Rori area (in Oman)¹⁹⁹ or the rich epigraphical evidence from Cave Hoq on Socotra Island (today part of Yemen),²⁰⁰ significance of ceramics of Indian origin (some indicating long-existing interactions)²⁰¹ and possible forms of Indian visual solutions and artistic elements on Arabian Gulf materials²⁰² have also been articulated. Research projects aiming to integrate the rich body of material evidence of these vast regions²⁰³ have already achieved promising results.

A methodological approach focusing on style and technique could also be formulated in order to systematize Eastern material in the West – as it has already been performed in case of Western material discovered in the East.²⁰⁴ This not only allows to have a better distinction of certain materials, but also gives the opportunity to define certain degrees and qualities of interactions and to examine the possible manifestations of (real) transfers.

Moreover, building a comparative corpus including all materials both from East and West would be a significant step towards achieving a more complex understanding of these

¹⁹⁹ Goetz 1963. Another one was found by the Italian Archaeological Mission in Oman. See: Autiero 2018, 409, note 4.

²⁰⁰ Strauch 2012.

²⁰¹ Schenk and Pavan 2012; Schenk 2015; Reddy 2015; Reddy 2016.

²⁰² Autiero 2018. K. Evers mentions, 'Indianising' influence on Roman ornamental furniture and artwork" based on 2nd century AD marble heads wearing their hair in a topknot, however further research would be needed defining to what degree those portrays could be seen as potential forms of cultural 'influence', or those were rather ways of visual codes representing India? See: Evers 2017, 40; On this problem with more examples on 'Roman representations of India': Parker 2008, 121-143. On the marble heads with topknot also: Schneider 1986, 156, 177-178, 216. Cimino ed. 1994, 126-128.

²⁰³ Such as the research project of the Leiden University entitled 'Routes of Exchange, Roots of Connectivity The archaeology of Afro-Eurasian networks across land and sea (1st millennium CE)' <https://www.universiteitleiden.nl/en/research/research-projects/archaeology/early-networks-of-the-afro-eurasian-silk-roads#tab-1>

²⁰⁴ See: Hoppál et al. forthcoming

ancient intertwined networks operating between these key regions. Reception studies might also provide a new insight of research. Comparing the differences and similarities between the reception of non-local artefacts in various local communities might reveal how and why certain non-local objects had been (re)interpreted by local networks. Although several research problems narrow the possibility of interpretations, following the social life of certain non-local objects would still provide significant elements towards broadening our comprehension, such as in the case of (Chinese) silk which was differently received in certain times, which from being a symbol of abhorrent extravagance incrementally became the appropriate garment of imperial and clerical *magistraturae* in Late Antiquity.²⁰⁵ Or in case of glass vessels of Mediterranean origin, which were differently received in certain regions, i.e. being luxurious trade-connected commodity or hardly attainable genuine prestige object.²⁰⁶

Conclusion

Earliest links between the (primary) Mediterranean world and typically northern South Asia²⁰⁷ existed long before the Roman era, and were principally indirect and land route based, however archaeological testimony of these early contacts is more recognized in the East.²⁰⁸ Land as well as Indian Ocean exchange increased during the 3rd- 2nd century BC, and reached its peak during the 1st century AD up until the 2nd- 3rd century AD,²⁰⁹ resulting in an accumulation of both South (East) Asian and Far Eastern genuine objects, raw materials, and even imitations/adoptions/adaptations (e.g. the Palmyrene textiles featuring elements of Chinese silk motifs and patterns). During this period the first sustained and close links with Eastern(-ised) groups might be inferred. Information on later periods are less apparent. The 3rd century AD can

²⁰⁵ Hoppál 2020, 200.

²⁰⁶ In case of China and Thailand see: Hoppál forthcoming

²⁰⁷ The question of when and where Chinese silk was first known in Europe is rather problematic, as authenticity of earlier and often cited examples have been questioned: Bender Jørgensen 2013. For a detailed summary with further bibliography: Hildebrandt 2017a. Glass analyses might also add further insights to the early West-East connections, such as in case of glass eye beads from Tomb Marquis Yi of the Warring States period. According to the XRF and Micro-Raman Spectrometry results, most of the analysed 46 beads belonged to the typical soda-lime-silicate glasses with low contents of MgO and K₂O. The evidence from these analysed glasses found in China also suggest that these possible early contacts between China and the West might have been mainly land route based. See e.g. Zhao et al. 2014.

²⁰⁸ For some objects of western origin see e.g.: Bopearachchi 2017, 17; Kilani 2017, 93-94. For a summary: Hoppál et al. forthcoming

²⁰⁹ E.g. Cobb 2018b, 287.

be seen as a period of recession followed by a reassessment of routes and networks, by which Sri Lanka and the southern regions of the Indian Subcontinent enjoyed greater importance,²¹⁰ while between the 5th and 8th centuries land routes also reached their apex.²¹¹

Question of intermediaries has also been addressed in several studies, among which role of Nabateans etc. has already been pronounced.²¹² However, a better comprehension on mediators operating along maritime and terrestrial routes still requires further research, such as in case of Sarmatians, whose role has less been recognized.²¹³ Presence of Westernised groups (particularly artisans) might be seen in some cases in the East, particularly northern South Asia (such as Barikot and Charsada²¹⁴ or Bara,²¹⁵ Pakistan), however it still needs to be analysed whether similar trend i.e. Easternised groups operating in the Imperium could be detected. Indian presence in the desert regions has already been articulated,²¹⁶ but visualizing permanent residence of Indian groups in Mediterranean port regions (or further West) is more debatable.²¹⁷ As it was introduced above, bioarchaeological analyses might also reveal certain individuals (possibly even groups) with Eastern affiliations, but detecting their possible identity and social role would require further research.

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Acknowledgement: The author is very grateful to Dr. Strobe Driver for reviewing the paper from another academic perspective.

²¹⁰ Beaujard 2019, 456. At the same time, R. McLaughlin describes a significant recovery in Rome's Eastern commerce" by the second half of the 3rd century. McLaughlin 2010, 137-138.

²¹¹ For a summary see e.g. de la Vaissière 2014, 104.

²¹² Inter alia: McLaughlin 2010, 61-81, 95-97, 104-106, McLaughlin 2014, 50-58, Sidebotham 2011, 209-212.

²¹³ For Sarmatian's role in the northern Silk Road see e.g.: Hanus 2015.

²¹⁴ Where imported molds and possibly even presence of Hellenistic itinerant craftsmen might be hypothesized see: Callieri 1995, 300. Also: Gosh 2012.

²¹⁵ Where possibly imported glassworkers with Western background might also be hypothesized operating mostly during the 1st century AD. See: Lankton et al. 2015.

²¹⁶ E.g. Asher 2019, 158-159; Evers 2017, 124-126.

²¹⁷ For this e.g.: Asher 2019, 158; For a collection of data: Salomon 1991; A Greek dedication to Pan by Sophon, the 'Indian' found in Egypt might be a possible evidence for a resident settler in the West. On this see e.g.: Von Lieven 2018, 66-67. However, problems of such 'ethnic reading' has also been raised, so much the more as the term ἰνδός has also been interpreted as an occupation, i.e. elephant driver. See e.g. Mairs 2013, 174-182.

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