Graeco-Roman merchants in the Indian Ocean : Revealing a multicultural trade

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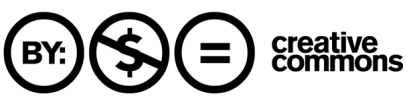

GRAECO-ROMAN MERCHANTS IN THE INDIAN OCEAN REVEALING A MULTICULTURAL TRADE

Introduction

Between 29-26 BC[1], the geographer Strabo of Amasia visited the newly created Roman province of Egypt. He was a close friend of Aelius Gallus, at the time the prefect of the province. During a certain period of his stay, Strabo accompanied the prefect on an inspection tour to the south. They sailed up the Nile from Alexandria towards the borders of Ethiopia. In these southern regions Strabo gathered some information on the ports of the Red Sea, which were separated from the Nile by the Eastern Desert. He would later use this information to write his renowned *Geographica*, a monumental work on the history and geography of the different regions of the then-known world[2]. In the second book of the *Geographica*, Strabo made a very interesting remark on the port of Myos Hormos, from which western traders[3] left for India :

> ...ὅτε γοῦν Γάλλος ἐπῆρχε τῆς Αἰγύπτου, σύνοντες αὐτῷ καὶ συναναβάντες μέχρι Συήνης καὶ τῶν Αἰθιοπικῶν ὅρων ἱστοροῦμεν, ὅτι καὶ ἑκατὸν καὶ εἴκοσι νῆες πλέοιεν ἐκ Μυὸς ὅρμου πρὸς τὴν Ἰνδικήν...
>
> …We were with Gallus when he was prefect of Egypt, and we travelled with him as far as Syene and the frontiers of Ethiopia, where we learned that as many as 120 ships were sailing from Myos Hormos to India…[4]

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1. Dueck 2000, p. 20 ; Jameson 1968, p. 80.

2. Dueck 2000, p. 20-21.

3. In this paper, I use ‘westerners’ or ‘western traders’ as synonyms for merchants from the Graeco-Roman world.

4. Strabo, 2.5.12 (Trans. H.L. Jones).

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As Strabo shows himself to be a direct witness to the Indo-Roman trade of the early principate, his remark has been cited by almost every author who wrote on this subject. At a first glance, the number Strabo provides seems huge, considering the fact that he did not mention the ships which set sail from Berenice, the other Red Sea port[5]. Furthermore, trade between India and Rome would reach its peak only decennia after Strabo's trip to southern Egypt. Although we know a relatively large amount of details about the Indo-Roman trade, this seemingly clear-cut citation thus evokes some important questions. Does the number of 120 ships each year seem probable ? If so, did the Romans dominate the trade routes of the Indian Ocean ?

Many authors tried to cope with these questions in one way or another. This has led to the so-called 'intensity debate'. This paper is a critical review of hypotheses concerning this intensity debate and aims to provide new insights chiefly based on primary sources. It concentrates on the physical *presence* of Graeco-Roman traders in India and the Indian Ocean rather than on commodities or economic statistics, with one question as a connective thread : Was the Indo-Roman trade dominated by one of the peoples participating in it ?

The paper is broadly divided in three parts. In the first part, I give a short overview of the most important authors involved in the intensity debate. The second part inquires into the ships of Indian Ocean. I will show that Graeco-Roman traders could and did travel to India using ships of the Mediterranean type, yet I will also argue that this does not imply that western merchants dominated the trade. In the third part, I shift my attention to the Indian subcontinent, adducing arguments for the existence of western trade communities in a multicultural trading context rather than western trade colonies like those of the Portuguese and the British in later times.

I. The intensity debate

In the first decennia of the 20th century, authors agreed that trade in the Indian Ocean was essentially in Roman hands. In these colonial times, western supremacy was almost accepted *a priori* ; native traders such as Arabians and Indians received only a small amount of attention. According to E.H. Warmington, who wrote a classic work on Indo-Roman trade, India was in fact part of the Roman monetary system and economically dominated through a series of trade colonies. He also argued that Indian science and culture were in many ways indebted to the Roman world[6]. Although this colonial view gradually disappeared when India

5. For more information on Berenice, see Casson 1989, p. 94-97 ; Sidebotham 1991, p. 20-21 ; 2011.

6. Warmington 1928, p. 131, 274-292, 319-320 ; Ball 2000, p. 123. See also Wheeler 1954, p. 124-125, who compared Roman presence in India with British trade factories.

became independent, authors of later times still stressed the important role of western merchants in the Indian Ocean. M. Wheeler, for example, was convinced that the Indian archaeological site of Arikamedu near Pondicherry was a Roman trade colony [7].

In the 70's and 80's, a bit more attention was given to indigenous traders, although the role of Graeco-Roman merchants was still highlighted. In his influential work, M.G. Raschke mentioned Arab and Indian activity but he believed that the trade networks were dominated by the Romans. Furthermore, he assumed that Graeco-Roman ships were more seaworthy than Arab or Indian vessels [8]. S. Sidebotham and L. Casson referred to Wheeler's thesis that Arikamedu was a western colony [9]. Casson also applied his insights in naval history to the Indo-Roman trade networks. He concluded that ships used by Graeco-Roman traders were the same type of vessels used in the Mediterranean. Like Raschke, he thought that these ships were better and more seaworthy than Arab ships, because their solid hull was able to cope with the stormy southwestern monsoon [10].

From the 90's onwards, authors began to focus on native traders who operated in the ancient and complex maritime trade networks of the Indian Ocean long before the Romans did. Indian historian H.P. Ray was one of the first researchers who stressed the important role of Indian and Arab traders. She doubted that Graeco-Roman vessels were used on the sea routes to India and emphasized the quality of Indian and Arabian ships : she especially doubted the suitability of Graeco-Roman rigging to the harsh weather conditions of the Indian Ocean. She also argued that the archaeological discoveries at Arikamedu don't necessarily prove the existence of a flowering western trade colony there. In her view, Roman commodities which were sold on India's west coast were dispersed over the rest of India through indigenous trade networks [11].

Graeco-Roman contribution to the Indian Ocean trade was most strongly minimized and even rejected by W. Ball. He highly emphasized the ancient maritime traditions of the Indian Ocean, in which there was but small space for western activity. In total contrast with Casson's thesis and further developing Ray's conclusions, Ball stated that Graeco-Roman ships were absolutely not capable of sailing the Indian Ocean. Their square sail would have been too primitive to cope with local wind patterns. In his view, Indian and Arabian ships were far more

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7. Wheeler 1954, p. 129, 145-150 ; Tomber 2008, p. 13-14.

8. Raschke 1978, p. 645.

9. Casson 1989, p. 228-229 ; Sidebotham 1991, p. 23.

10. Casson 1989, p. 284-285 ; 1991, p. 10.

11. Ray 1994 ; 1995.

seaworthy and only the Arabian *dhows*[12] were really suited to sail from the gulf of Aden to India. Furthermore, Ball denied the presence of Graeco-Roman trade colonies in India. The few western traders who wanted to trade with India would have had to make the journey on Arabian or Indian vessels[13]. Other recent authors likewise warned for the tendency to overestimate the extent of the Indo-Roman trade, but none of them carried this opinion as far as Ball did[14].

The most recent work on Indo-Roman trade was written by S.E. Sidebotham. Based on his excavations in the port of Berenice, Sidebotham portrays a picture of a very lively trade activity in the Red Sea and the Indian Ocean[15].

In the next two chapters, I will refute Ball's conclusions on Indo-Roman trade while trying to reconcile the thesis of Casson with recent research on native trade networks in the Indian Ocean.

II. Graeco-Roman Ships in the Indian Ocean

As noted before, Ray was one of the first authors who doubted a strong presence of Graeco-Roman traders in the Indian Ocean. Her major argument was the lack of usable wood in Egypt and the barren living conditions at the Red Sea ports, which would have hampered ship-building[16]. We have seen that Ball went even further, denying that western ships were capable of sailing the Indian Ocean. However, Ball didn't support his thesis with convincing examples from ancient sources, while numerous factors show us that Graeco-Roman traders indeed sailed to India with their own ships. First, I will examine the possibilities to build ships at the Red Sea coast or to get ships there in another way. In doing this, I will show there is no reason to doubt the presence of Graeco-Roman ships in the Red Sea like Ray did. Next, I will refute Ball's premise with a set of arguments, inquiring further into the use of Mediterranean ships in the Indian Ocean[17].

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12. The term 'Dhow' is actually incorrect. It was invented by Europeans as a corruption of the Swahili word 'Daw'. As the term is still broadly applied, I will make use of it as a covering word for all Arabian ships, like the *Sambuq*. See Hourani 1963, p. 89.

13. Ball 2000, p. 131-132.

14. Parker 2008, p. 185; Whittaker 2004, p. 158. G.K. Young believes that there were Graeco-Roman trade colonies in India and that Graeco-Roman ships in the Indian Ocean were of the same type as the vessels in the Mediterranean, but he consciously does not give a statement on the intensity of the trade. See Young 2001, p. 88-89.

15. Sidebotham 2011.

16. Ray 1994, p. 165-172.

17. The views of Ball and Ray are already implicitly contradicted by Sidebotham in his recent work on Berenice. Sidebotham however did not participate explicitly

How to get a ship in the Red Sea

As noted before, Ray questioned the input of the Romans in the Indian Ocean trade, thinking that it was too difficult for Graeco-Roman merchants to get ships in the Red Sea. She doubted the possibilities of building ships at the Red Sea coast mainly due to two arguments. First, she assumed that timber, the raw material of prime importance for ship-building, was but scantly available in Egypt. A second argument considers the fact that the coast of the Red Sea was barren and inhospitable, which would have made it very difficult to construct ships there [18].

In my opinion, the shortage of wood in Egypt is no reasonable argument to call ship-building in Egypt into question. It is of course true that most of the trees in this country don't yield usable wood [19]. However, in the southern regions there is a certain Palm species with a suitable wood type: the *Hyphaene thebaica*, also called the doum palm. This palm grows in the Nile valley and in the wadis and oases in the Eastern Desert, close to the Red Sea [20]. Theophrastus already remarked that the wood of the doum palm was hard and compact. He narrates that the tree was highly regarded by the Persians, who made the feet of their couches out of it [21]. According to N. Baum, the palm provided timber to be used in constructions [22]. R. Gale asserts that the doum palm was used for boat-building, which is followed by K. Vandorpe and S. Waebens [23]. Thus, ship builders at the coast of the Red Sea could have made use of the doum palms which grew nearby [24].

However suitable the doum palm may have been, the amount of timber it yielded was probably not enough to build the 120 ships which according to Strabo sailed annually to India. Therefore, wood had to be imported. In my opinion this would not have caused a lot of problems. Graeco-Roman merchants were in service

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in the debate : he limits himself to his archaeological findings. My argumentation will therefore often make use of these findings, yet it will also include many other sources in order to answer this specific question : were Graeco-Roman traders active in the Red Sea and the Indian Ocean with their own ships ?

18. Ray 1994, p. 165-172 ; 1995, p. 99.

19. Gale 2000, p. 334 ; Vandorpe, Waebens 2008, p. 180.

20. Baum 1988, p. 108.

21. Theophrastus, *Historia Plantarum*, 4.2.7.

22. Baum 1988, p. 110 : « Le bois, très solide, sert aux constructions et fournissait évidemment des poutres dans l'Égypte ancienne ».

23. Gale 2000, p. 347 ; Vandorpe, Waebens 2008, p. 187.

24. Another usable tree in Egypt was the « Blackthorn » mentioned by Pliny, which Sidebotham identifies as the acacia. See Pliny, *Naturalis Historia,* 13.19.63 ; Sidebotham 2011, p. 201.

of 'trading companies' formed by rich financiers, who imported high quantities of wood to Egypt[25]. The import of wood is confirmed by excavations in the Red Sea port of Berenice. Two types of wood were found. Teak, a hardwood from South Asia, was most abundantly excavated[26]. D. Rathbone thinks that teak formed the biggest part of the cargo from India mentioned in the Muziris-papyrus[27]. We know that the Arabs used teak for the construction of their *dhows*, so it seems very probable that this type of wood was also used in Egypt for the purpose of ship-building[28]. A second type, found in smaller amounts, is cedarwood from present-day Lebanon, which was already used in Pharaonic times[29].

Ray's second argument is more interesting. Ship-building on great scale in Myos Hormos or Berenice seems improbable, as the transportation of huge quantities of raw materials through the Eastern Desert would have posed insurmountable problems. Yet Ray left the question open. She considered the possibility of transporting ships overland in sections[30]. This assumption is supported by the Koptos Tariff, in which the transport of a ship's mast to the Red Sea coast is referred too[31]. However, these transports were probably limited, again because of the difficult conditions of the Eastern Desert and the high cost of overland transport[32]. Ray also thought that Mediterranean ships could reach the Red Sea from the moment emperor Trajan had ordered to restore the canal between the Nile and Clysma, the most northerly of the Red Sea ports[33]. The question remains then how Graeco-Roman ships could have been active in the Red Sea in the period before Trajan, when trade was already considerably developed.

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25. These « trading companies » were not firms in the modern sense of the word. They had a loose structure, formed by personal affiliation (friendship, family ties, etc.). They often only lasted a short duration and had no specific juridical statute. See Sidebotham 1986, p. 83. For an example of such a « trading firm », see Wilcken 1925, p. 86-102 (= *SB* 7169), a papyrus contract in which five individuals finance a trading mission to East Africa. See also Tomber 2008, p. 153.

26. Sidebotham 2011, p. 203-205, 239 ; Vermeeren 1999, p. 199-204 ; Whittaker 2004, p. 153.

27. Rathbone 2000, p. 47.

28. Hourani 1963, p. 89 ; Ray 1994, p. 173.

29. Sidebotham 2011, p. 205 ; Ward, Zazzaro 2007, p. 135-150.

30. Ray 1994, p. 169. Writing some years earlier, J. Rougé especially favored the possibility of overland transportation. See Rougé 1988, p. 70.

31. Bernand 1984, n. 67 ; Sidebotham 2011, p. 201.

32. Sidebotham 2011, p. 201.

33. Ray 1994, p. 170. For Trajan's canal, see Sijpesteijn 1963, p. 70-83 ; Sidebotham 1991, p. 16.

The solution for this problem is to be found in the following indications. Evidence shows that ships *were* indeed being built at the Red Sea coast. Strabo mentions that Aelius Gallus had ordered a fleet to be built at Clysma, from where he undertook his expedition against Arabia[34]. Furthermore, remains from ancient ships have been found in the port of Myos Hormos, which date from the end of the first century BC to the middle of the third century AD. These remains once belonged to Graeco-Roman ships of the Mediterranean type, yet the materials from which they were constructed show that the ships were built at the Red Sea coast. For example, sails were made from Indian cotton and the wood had an Indian or East African origin[35]. This last finding likewise shows that a shortage of usable wood in Egypt is no valid argument. Finally, Flavius Philostratus refers in his *Vita Apollonii* to the building of ships in Egypt :

> ὑποκείσθω δὲ ναῦς, οἵαν Αἰγύπτιοι ξυντιθέντες ἐς τὴν θάλατταν τὴν ἡμεδαπὴν ἀφιᾶσιν ἀγωγίμων Ἰνδικῶν ἀντιδιδόντες Αἰγύπτια
>
> …Let us imagine a ship such as the Egyptians construct and launch in our sea, giving Egyptian exports in exchange for Indian ones… [36]

Thus we can see that ships were indeed built at the Red Sea. Nevertheless, in Myos Hormos or Berenice boat-building activities must have been very limited. The teak found in Berenice would more likely have been used to repair damaged ships[37]. A better candidate is Clysma[38], which lay closer to the Nile and which could hence be more easily supplied[39].

The arguments listed above make clear that it is not necessary to have doubts about the possibilities to get ships in the Red Sea. They could either be constructed at the shores of the Red Sea, with Clysma as the most likely building spot, or the trading firms could bring in ships from the Mediterranean through the Nile canal from the moment Trajan had restored it. In my opinion, most of the ships used for the trade with India were built on the shores of the Red Sea. The canal between

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34. Strabo, 16.4.23.

35. Whitewright 2007b. The nautical findings in the port of Myos Hormos are of prime importance for this paper and will be further discussed below.

36. Philostratus, 3.35. (Trans. C.P. Jones)

37. Sidebotham 2011, p. 201.

38. Although Clysma lay closer to the Nile, it was rarely used to trade with India. As the northern part of the Red Sea was known for its difficult sailing conditions, merchants considered it too risky to ship their costly merchandise to Clysma. Possibly, the port was used for the import and export of bulk goods. See Sidebotham 1991, p. 16 ; Whitewright 2007a, p. 78, 83.

39. Sidebotham also thinks that ship assembly mainly took place in Clysma. See Sidebotham 2011, p. 201.

the Mediterranean and Clysma required intensive maintenance ; it was probably not always navigable [40].

As most base materials had to be transported to Clysma, we can guess that the costs to build ships there must have been huge. However, it is my opinion that this was by far the most practicable choice the trading firms could opt for. Nevertheless, more research has to be done in order to understand how ship-builders managed to cope with the logistical problems which ship-construction at the Red Sea undoubtedly posed.

Graeco-Roman ships in the Red Sea and the Indian Ocean

Now we have seen that it was possible to get ships in the Red Sea, let us consider to what extent these Graeco-Roman ships were really active there. But then the question remains: were Graeco-Roman ships, if operating in the Red Sea, involved in the trade networks of the Indian Ocean ?

In our sources several references are made to Graeco-Roman ships in the Red Sea. First of all, the Muziris-papyrus explicitly names a ship which came back from India : the *Hermapollon* [41]. This name is obviously Greek. It is of course possible that this ship was of Arabian origin and re-baptized under a Greek name, but this assumption seems rather far-fetched. Next, some epigraphical sources mention *naukleroi*, people who owned ships in the Red Sea [42]. There is no proof that these ships were of Graeco-Roman origin, but it seems improbable that trading firms bought and equipped Arabian ships on great scale while it was possible to build ships themselves. Archaeological remains also seem to indicate that western ships plied the Red Sea. This thesis is first of all supported by the aforementioned ship remains from Myos Hormos :

> …The general form of the deadeye, sheaves, brail rings and sailcloth is consistent with finds from classical contexts within the Mediterranean basin and comprises most of the components required to rig a sailing vessel within the classical Mediterranean tradition…Brails and brail-rings are a component unique to the Mediterranean sailing rig. Their use is inconsistent with any of the other sailing rigs known to have been used at this time in the Mediterranean or Indian Ocean. As a result of this, is seems reasonable to assume that Roman sailing vessels engaged

40. Tomber 2008, p. 66.

41. *P.Vindob*. G 40822, verso, column 2, line 28.

42. See for example *SEG* VIII, 703. This is an inscription mentioning two women, Aelia Isidora and Aelia Olympias, who were commercially involved in the Red Sea trade. See also Sidebotham 1986, p. 86-87 ; Young 2001, p. 58-59.

> in trade in the Indian Ocean were outwardly similar in appearance, operation, and capability to their Mediterranean contemporaries… [43]

Other remains point in the same direction. According to Sidebotham, Roman-era lead sheating with nail holes found in Myos Hormos demonstrates that Mediterranean ship-building practices were used in the Red Sea. He also mentions a recent finding of ship timbers in the harbour of Berenice, which were joined in the mortise-and-tenon fashion typically found in the Mediterranean [44].

These recent findings prove Ball and Ray, who stated that Graeco-Roman ships were not capable of sailing the Indian Ocean, wrong. It was apparently possible to cross the Indian Ocean with ships using a so-called 'primitive' square sail. Recent research showed that Mediterranean rigging was in fact very sophisticated and well developed [45]. Furthermore, coins of the Indian Sātavāhana empire dating from the second and third century AD depict ships whose rigging imply the use of a square sail [46]. Sailing the Indian Ocean was then not only restricted to ships using lateen sails like the Arabian *dhows* [47].

Still, one could argue that Graeco-Roman ships were only active in the Red Sea, going no further than Arabia. Merchandise could then be transferred from *dhows* to western ships. However, our sources contradict this assumption. The *Periplus Maris Erythraei* [48] explicitly states that this was the case in former times, when western ships did not dare to go further than Arabia Felix :

> Εὐδαίμων Ἀραβία εὐδαίμων δ' ἐπεκλήθη, πρότερον οὖσα πόλις, ὁτε μήπω ἀπὸ τῆς Ἰνδικῆς εἰς τὴν Αἴγυπτον ἐρχομένων μηδὲ ἀπὸ τῆς Αἰγύπτου τολμώντων εἰς τοὺς ἔσω τόπους διαίρειν, ἀλλ' ἄχρι ταύτης παραγινομένων ...

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43. WHITEWRIGHT 2007b, p. 287. Later in the text, Whitewright states that it is still possible that these remains came from Indian ships which were rigged in Mediterranean style. This seems improbable to me because the Indians had a long and successful tradition of ship-building of their own. If this assumption is true, it still proves that Graeco-Roman ships were present in the Indian Ocean as the Indians used them as model for their own ships.

44. SIDEBOTHAM 2011, p. 197-198.

45. WHITEWRIGHT 2007a, p. 83. According to J. Rougé, Mediterranean ships could transform their square sail to a triangular one. See ROUGÉ 1988, p. 74.

46. DELOCHE 1996, p. 201-205.

47. According to R. Weismann, even the Arabs made no exclusive use of lateen sails. See WEISMANN 2007, p. 95.

48. One of our most important sources. It is a handbook on the trade in the Indian Ocean written by a anonymous captain or merchant in the years 40 – 70 AD. See CASSON 1989.

> …Eudaimôn Arabia ["prosperous Arabia"], a full-fledged city in earlier days, was called Eudaimôn when, since vessels from India did not go on to Egypt and those from Egypt did not dare to sail to the places further on but came only this far, it used to receive the cargoes of both.[49]

Let us now examine some sources referring to a direct Graeco-Roman participation in the Indian Ocean trade. The first and most important source is the *Periplus*, which, however, raises also several questions. Especially the sailing schedule, described in the following passage, leads to various interpretations:

> <Ἀν>άγονται δὲ καὶ αὐτοὶ οἱ πλέοντες μετὰ τῶν Ἰνδικῶν περὶ τὸν Ἰούλιον μῆνα, ὅς ἐστιν Ἐπῖφι· δυσεπίβολος μὲν, ἐπιφορώτερος δὲ ἐκείνων καὶ συντομώτερος ὁ πλοῦς
>
> Those who sail with the Indian [sc.winds] leave around July, that is, Epeiph. The crossing with these is hard going but absolutely favourable…[50]

According to Casson's interpretation of this excerpt, Graeco-Roman ships crossed the Indian Ocean in the summer months, when the southwestern monsoon reached the peak of its power. In his view, western ships were strong enough to cope with the blustery blasts of the monsoon, in contrast to the Arabian *dhows*. Since these *dhows* consisted of planks sewn together, Casson argued that they were less sturdy than their Graeco-Roman counterparts[51]. Although this last viewpoint has been convincingly refuted[52], Casson correctly described the Arab sailing schedule : medieval sources mention that they departed in September, when the southwestern monsoon had lost a good deal of its power[53]. Arab *dhows* were well adapted to this specific sailing schedule: their speed made up to the late departure and their rigging permitted them to sail against the early stages of the upcoming northeastern monsoon[54].

Ray, however, was critical of the sailing schedule of western ships described in the *Periplus*. She showed that trade was not possible in the summer months, as all the ports between cape Gardafui and the western coast of India were closed

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49. *Periplus Maris Erythraei*, 26. (Trans. L. Casson).

50. *Periplus Maris Erythraei*, 39. (Trans. L. Casson).

51. Casson 1989, p. 284-291 ; 1991, p. 10. Also Raschke 1978, p. 645. This view already existed in antiquity. According to Strabo, Onesicritus described local vessels as being poorly constructed. See Strabo, 15.1.15; Ray 2003, p. 59.

52. See p. 88.

53. See for example Ibn Majid, an Arab sailor from the 15th century who wrote a work on navigation in the Indian Ocean. See Tibbets 1971, p. 7-37.

54. Casson 1989, p. 290-291 ; Tibbets 1971, p. 365-368.

because of the ferocious storms of the southwestern monsoon [55]. Ray certainly had a point there. During the summer months, winds blowing on the Indian Ocean reach force 7 to 9, creating huge waves of 4 to 7 metres. These conditions are too harsh for even the most sturdy sailing ship of that time [56]. Yet Ray drew a wrong conclusion when she called on these grounds the reliability of the *Periplus* and the whole Graeco-Roman trade in the Indian Ocean into question. In my opinion, both she and Casson interpreted the above-mentioned passage too literally. The *Periplus* does not explicitly state that the ships made crossing of the Indian Ocean during the summer months. When July is mentioned as the moment of departure, this should be interpreted as the departure *from the Red Sea ports* [57]. It took roughly one month to sail down the Red Sea to reach the ports of Southern Arabia [58], but the author of the *Periplus* never mentions that the Graeco-Roman ships immediately went on to India in the month of August. In my opinion, the interpretation of J. Rougé is by far the most preferable : he thinks that western ships waited for some weeks in the Arabian ports until the summer storms abated and the ports and trade routes were opened once more [59]. There is thus no need to contrast a(n) (improbable) western sailing schedule in the summer months with a (more probable) native sailing schedule in September and October. It is not unreasonable to guess that both western and native merchants sailed and traded at the same moment.

Another of Ray's arguments against Graeco-Roman participation in the Indian Ocean trade was based on the assumption that Graeco-Roman ships were not once mentioned by the author of the *Periplus*, in contrast to local ships such as the *madarate*, the *trapaga* and the *kolandiophonta* [60]. However, she overlooked that the *Periplus* actually does make mention of western ships a few times, for example in the chapter dealing with the Indian port of Barygaza :

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55. Ray 1994, p. 85-86.

56. Rougé 1988, p. 73.

57. Pliny the elder explicitly states that the ships left the Red Sea ports around midsummer. See Pliny, *Naturalis Historia*, 6.26.104 ; Rougé 1988, p. 73. This date is probably confirmed by a recently found papyrus. The papyrus mentions a ship coming back from the east. However, it experienced some problems: as it returned a bit too late from India, unfavorable winds made it difficult to get good anchorage. Furthermore, because of this late return, new cargo had to be acquired quickly to set sail again in July. July was the perfect moment of departure, since the winds in the Red Sea blow at that moment from the north, making an easy voyage to the south possible. See Peppard 2009.

58. Pliny, *Naturalis Historia,* 6.26.104.

59. Rougé 1988, p. 73.

60. Ray 1994, p. 172 ; *Ead*. 2003, p. 62.

καὶ γὰρ τὰ ἐκ τύχης εἰς τούτους τοὺς τόπους εἰσβάλλοντα πλοῖα Ἑλληνικὰ μετὰ φυλακῆς εἰς Βαρύγαζα εἰσάγεται...

…For Greek ships that by chance come into these places are brought under guard to Barygaza… [61]

And a bit later, while describing the trading center of Muziris:

ἡ δὲ Μουζιρὶς βασιλείας μὲν τῆς αὐτῆς, ἀκμάζουσα δὲ τοῖς ἀπὸ τῆς Ἀριακῆς εἰς αὐτὴν ἐρχομένοις πλοίοις καὶ τοῖς Ἑλληνικοῖς

…Muziris, in the same kingdom, owes its prosperity to the shipping from Ariakê that comes there as well as to Greek shipping… [62]

In my opinion, Graeco-Roman ships were not frequently mentioned because of the obviousness of this fact. Local ships were on the other hand a point of interest for the inquisitive author. Ball however discarded some of the rich information of the *Periplus* :

…The *Periplus*, important though it undoubtedly may be, is after all just an isolated document hardly longer than the modern reviews of its latest edition… [63]

It is true that the *Periplus* is a work of a rather modest size and that its various descriptions require a lot of explanation, but this does not nullify its usefulness. Even if not a single similar work survived, the *unus testis nullus testis* reasoning cannot be applied to the study of antiquity. We must cherish unique documents like the *Periplus* and use its information whenever this is possible.

The next indication for the use of Graeco-Roman ships in the Indian Ocean comes from a rather unexpected source: Procopius of Caesarea, a Byzantine author of the sixth century. In the nineteenth chapter of his work on the wars against Sassanian Persia, Procopius describes the native ships of the Indian Ocean, which were constructed from planks sewn together. There was a certain myth explaining the origin of these sewn ships : the bottom of the sea was littered by magnetic rocks, which would drag iron-fastened ships and their crews to the depths of the ocean [64]. However Procopius does not believe a single word of this theory :

τεκμήριον δέ· ταῖς γὰρ Ῥωμαίων ναυσὶν ἐξ Αἰλᾶ πλεούσαις ἐς θάλασσαν τήνδε, καίπερ σιδήρῳ πολλῷ ἡρμοσμέναις, οὔποτε τοιοῦτον ξυνηνέχθη παθεῖν...

61. *Periplus Maris Erythraei*, 52. (Trans L. Casson).

62. *Periplus Maris Erythraei*, 54. (Trans L. Casson).

63. Ball 2000, p. 131.

64. According to Hourani, this myth was widespread during Antiquity. He mentions an ancient Sanskrit writer, Bhoja, who was the first to write down this theory. See Hourani 1963, p. 95.

> …For witness the fact that when Roman vessels sail from Aelas[65] into this sea, although they are fitted with much iron, no such thing has ever happened to them…[66]

So according to this passage, the Byzantines sailed the Indian Ocean with their own ships. It seems very improbable the Romans would not have done this at a time when Indo-Roman trade happened on a much greater scale than in the times of Procopius[67].

Not only western sources may provide clues. Tamil literature from South India has yielded a few passages which probably refer to western merchants[68]. One of these comes from the *Purananuru*, 'the four hundred songs of war and wisdom' :

> …While every day you take your pleasure as women wearing their shining bangles bring you the cool and fragrant wine carried here by the *Yavanas* in their excellent ships…[69]

If the *Yavanas* in this text can be identified as Graeco-Roman merchants, which seems very probable to me (see below), this passage makes clear that the quality of their ships was almost proverbial in southern India. Furthermore, there is another Tamil-poem in which « the beautiful ships, the masterpieces of the *Yavanas* » are praised[70]. This corresponds with the other information listed above: Tamils had a reason to admire the ships of the Romans, as there would have been a contrast between Mediterranean ships and native vessels. People in the Indian Ocean were familiar with the latter for centuries, while western ships were still a novelty. In my opinion, this text does not prove the superiority of the Graeco-Roman vessels over others: it just refers to its massive construction, which contrasted with the flexible hull of Arab and Indian ships.

The last piece of evidence is perhaps the most enigmatic one. In 1997, a potsherd was found in Alagankulam, a town on the south-eastern coast of India. A graffito on this potsherd partially depicts a ship, which Casson and Tchernia identified as Roman. The graffito however still poses a great deal of iconographical

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65. Present Aqaba, in Jordan.

66. Procopius, *De Bellis*, 1.19.24. (Trans. H.B. Dewing)

67. In the sixth century, trade in the Indian Ocean was essentially dominated by the Sassanians. See Ball 2000, p. 133 ; Daryaee 2003 ; Whitehouse 1991.

68. Meile 1945, p. 85-123 ; Zvelebil 1975, p. 5, 31 ; Parker 2008, p. 173.

69. *Purananuru*, 56.17-20. (Trans. based on Hart's and Heifetz's. While they translated *Yavanas* as « Greeks », I chose not to translate this word for reasons made clear below.)

70. Meile 1945, p. 90.

problems: it is unclear which type of ship is actually depicted. Furthermore, it is not sure whether the graffito portrays a ship which was present in Alagankulam itself. Yet according to Tchernia, the graffito still shows that Ray's critical stance on western ships in India has to be reconsidered[71].

Based on the available evidence, we can see that Graeco-Roman ships were active in the trade networks of the Red Sea and the Indian Ocean, in spite of the doubts and denials expressed by Ray and Ball. Nonetheless, we should not go as far as Raschke or Casson : western vessels were not superior to those of Indians or Arabs. Native sailing in the Indian Ocean was discredited all too often in the past. Because their hull was sewn rather than nailed up, native ships were wrongfully considered to be too fragile to cope with strong winds. It is the merit of scholars like Ray to have restored them as ships well adapted to the specific conditions of the Indian Ocean. The sewn hull offered flexibility instead of fragility[72].

We can conclude that it is wrong to perceive the trade networks of the Indian Ocean in terms of dominance, be it by western or by native traders. In my opinion, the different peoples involved in the Indian Ocean trade coexisted, intermingled and learned from each other's ways rather than competed for dominance based on ethnic grounds. The next chapter will come to similar conclusions.

III. Graeco-Roman Presence in India

After having examined the activity of Graeco-Roman ships in the trade routes of the Indian Ocean, I shift my attention to the presence of western merchants in India itself. Unfortunately, the related sources are very few and never unequivocal. A cautionary approach is necessary, therefore we will have to limit ourselves to limited findings and hypotheses.

In colonial times, authors like H.G. Rawlinson and E.H. Warmington stated that western traders were highly represented among the trade communities of India and that they even built trade colonies of their own[73]. Numerous western artefacts found in India, such as ceramics, works of art and coins, were all too often said to prove a strong Roman presence there. Ball rightly cautioned about using these sources as a standard. A far greater number of Roman coins were found in Germany or Poland, where no Roman colonies existed. Ball furthermore made a comparison with Maria-Theresa dollars in 20th century Yemen : obviously

71. Tchernia 1998, p. 455-457. See also Sidebotham 2011, p. 202-203.

72. Ray 1994, p. 172-175 ; 1995, p. 100-101. See also McGrail 1996 and other essays in Ray, Salles 1996.

73. Rawlinson 1916, p. 121, 138 ; Warmington 1928, p. 131.

these dollars do not imply the presence of Austrian colonies there [74]. Considering these observations, I do not inquire deeply into the archaeological relics found on the subcontinent. Instead, more notice is spent on direct clues. In this way, I will try to answer the question if western merchants were really present in India, be it in trade communities or real colonies.

First, I examine if there was a Roman trade colony at the archaeological site of Arikamedu, as Wheeler suggested. Next, I take a closer look at the enigmatic depiction of a temple of Augustus in the Indian trading port of Muziris. Finally I inquire into possible Indian witnesses to Graeco-Roman activity in India : *Yavanas* mentioned in Tamil-poems and cave inscriptions of the western Deccan.

Arikamedu, a western colony on Indian soil ?

In the 40's, M. Wheeler excavated an old trading port which would quickly become the best-known archaeological site of India : Arikamedu, near present Pondicherry. Wheeler identified this place as the trading port of Poduke mentioned by the author of the *Periplus*. Potsherds from Italian ceramics formed a large part of the findings. According to Wheeler, this undeniably proved the existence of a Roman colony there [75]. Until the 80's, this vision was accepted by for instance Casson and Sidebotham (see above). In his review of Casson's edition of the *Periplus*, D. Whitehouse was one of the first to doubt this thesis:

> ...The question is, of course, do 150 fragments of Mediterranean amphorae, 50 fragments of Arretine ware, a handful of Roman glass, two pieces of Roman lamps, one engraved gem, and what may be a Roman stylus, deposited over a period of more than 200 years, really add up "a colony of westerners"? The answer, I suspect, is no… Until we find distinctive "colonial" architecture or a Greek or Latin inscription, I think we would do well to regard the possibility of a Roman community at Arikamedu as a hypothesis that cannot at present be tested… [76]

Ray and Ball also warned not to jump to premature conclusions on the basis of the available data [77]. In my opinion it is indeed unlikely that Arikamedu was a real western colony. The greatest part of the findings at Arikamedu date from the first part of the first century AD, not a long time after the beginning of the direct trade contacts between Roman Egypt and India [78]. The existence of a blossoming

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74. Ball 2000, p. 132.

75. Ball 2000, p. 128-129 ; Wheeler 1954, p. 129, 145-150.

76. Whitehouse 1990, p. 490.

77. Ball 2000, p. 129 ; Ray 1994, p. 70-71.

78. Casson 1989, p. 228 ; Raschke 1978, p. 978 (note 1330) ; Tomber 2008, p. 136-137; Wheeler 1946 ; 1954, p. 129, 145-150.

western trade colony on the east coast of India just a few decennia after the opening of the trade routes seems very improbable. For the *Periplus* states that Graeco-Roman merchants from the first century AD mainly traded with India's west coast ; the ports of the east coast were rarely called in at. Moreover, the author of the *Periplus* shortly mentions Poduke, stating that this place served as a home port for *local* boats. He did not mention the presence of a western trade settlement there[79]. The Graeco-Roman artifacts found at the site may be brought there by sporadic western traders visiting Poduke or by Indian merchants coming from India's west coast.

As the east coast is now proven to be an unlikely place for harbouring Roman settlements, are there maybe other places where Roman trading communities or even colonies could be found ? India's west coast, a more popular destination for Graeco-Roman merchants, is a possible candidate.

A temple for Augustus

The *Tabula Peutingeriana*, a huge road-map giving an overview of the whole Roman Empire, is an invaluable source for the study of ancient topography. According to R. Talbert, who wrote the most recent work on the *Tabula*, the original version was made around 300 AD. However, the map was at least partially based on much older sources going back to the first century AD[80]. The *Tabula* is not confined to the Roman Empire alone : the eastern regions of the then-known world, including India, are also depicted. On segment XI the city of Muziris is shown and next to it a temple of Augustus[81].

Muziris, mentioned by for instance Pliny, the *Periplus*, the Muziris-papyrus and Tamil poems, was for Westerners the best-known Indian port[82]. For a long time, the city was thought to have disappeared from the face of the earth : no single trace of it could be found. Yet from 2004 on, excavations are being carried out at the coastal site of Pattanam, Kerala. Great quantities of Roman pottery were found here, similar to the pottery excavated in Myos Hormos and Berenice. According K.P. Shajan *et al.*, there are strong arguments for equating Pattanam with Muziris[83]. Yet as in the case of Arikamedu, Graeco-Roman presence cannot

79. *Periplus Maris Erythraei*, 51 ; Casson 1989, p. 24-25, 230.

80. Talbert 2010, p. 133-136.

81. *Tabula Peutingeriana*, seg. XI.

82. Pliny, *Naturalis Historia*, 6.26.104 ; *Periplus Maris Erythraei*, 54-56 ; Ptolemy, *Geographia*, 7.1.8, 8.26.4 ; *P.Vindob*. G 40822, recto, column 2, line 12 ; Meile 1945, p. 90-92.

83. Shajan 2004, p. 312-319 ; 2008 ; Sidebotham 2011, p. 190-191 ; Tomber 2008, p. 141-144.

be deduced from the archaeological record alone. Can the depiction of a temple for Augustus on the *Tabula Peutingeriana* provide this proof ?

Much has already been written about this riddling illustration. William Logan, a nineteenth-century colonial official, wrote in his *Malabar Manual* that the *Tabula* showed two Roman cohorts next to the temple [84]. So according to him there were Roman colonies in India with military forces – a view undoubtedly reflecting the colonial situation of his time. V.K. Pillai, an Indian historian writing in the beginning of the 20th century, likewise mentioned these cohorts [85]. Until the 40's authors would endorse this viewpoint [86]. Nonetheless, military units can nowhere be seen on the *Tabula Peutingeriana* [87].

Considering the temple for Augustus, many authors believe that western merchants really erected a building of the kind in Muziris [88]. Only a few researchers had doubts about this. According to A. Basham, the temple for Augustus was in fact a temple for the Indian sage Agastya [89]. In Ball's view, the temple was consecrated to a local god, approximated with the cult of Augustus [90]. In my opinion, this last thesis seems improbable. Gods from other cultures were certainly equated with Graeco-Roman gods – e.g. Scythian gods which Herodotus identified with Apollo, Aphrodite, Heracles and Ares [91]. However, foreign gods were never approximated with the emperor cult.

Perhaps a closer view on the *Tabula Peutingeriana* and its maker can make clear whether the depiction represents a temple which really existed. According to A. Levi and M. Levi, the symbols on the *Tabula* indicate the level of services and accommodation available to travellers [92]. In this view, the existence of the temple seems probable. R. Talbert on the other hand argues convincingly that the mapmakers purpose was artistic and celebratory rather than practical or

84. Logan 1887, p. 199.

85. Pillai 1904, p. 38.

86. Meile 1945, p. 112.

87. This strange record probably stems from a mistake made by Logan or one of his sources. Although the map was edited and published several times in the seventeenth and eighteenth century, a reliable edition was probably not available to the author who made this mistake. For the editions of the *Tabula*, see Talbert 2010, p. 30-62.

88. Casson 1989, p. 24 ; Charlesworth 1951, p. 142 ; Rawlinson 1916, p. 121 ; Sidebotham 1986, p. 92 ; Young 2001, p. 30.

89. Basham 1969, p. 232.

90. Ball 2000, p. 131.

91. Herodotus, *Historiae*, 4.59.

92. Levi & Levi 1967, p. 169-176.

geographic. The Tabula is « a representation of the known world from the Atlantic to as far as India, where the city of Rome dominates at the center » and celebrates the sweep of Roman power and civilization[93]. Consequently, the image of the temple of Augustus may be a symbolic claim of the Roman emperor for world domination[94]. G. Parker came to a similar conclusion :

> *…The Indian roads, complete with distances, and the temple of Augustus close to Muziris are means of naturalising the subcontinent as part of the extended Mediterranean world, and thus by implication subject to Roman power...*[95]

Since the image on the *Tabula* cannot be taken at face value (although it is still possible that the mapmaker derived the image of the temple from an older and maybe more reliable source), it is perhaps more interesting to examine the context in which a temple of Augustus could or could not have existed. In the following paragraphs, I will argue that the circumstances in Muziris really allowed a western temple to exist there.

First, the temple in Muziris would not have been the only temple for the emperor cult beyond the imperial frontiers: an inscription from Palmyra states that a rich merchant had built a temple for the *Augusti* in the Parthian city of Vologesias[96]. Second, there are some sources which refer to Graeco-Roman traders residing in Muziris who could have erected the temple. When the author of the *Periplus* listed the imports of Muziris, he mentioned the following :

> σῖτος δὲ ὅσος ἀρκέσει τοῖς περὶ τὸ ναυκλήριον διὰ τὸ μὴ τοὺς ἐμπόρους αὐτῷ χρῆσθαι.

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93. Talbert 2010, p. 7, 122, 142-157. Talbert thinks the map was portrayed behind the throne of one of the Tetrarchs, to celebrate the restoration of peace and order by Roman rule and to propagate the ideology of Diocletian's Tetrarchy.

94. Claims that Rome dominated the inhabited world at least go back to Polybius in the 2nd century BC and were further exploited by Augustus. Talbert puts it as follows: «… it is no surprise, therefore, that the Peutinger map should project Roman world rule, nor that this sway should be projected as far east as India and Sri Lanka...». See Talbert 2010, p. 149. See also Whittaker 1998, p. 1-5.

95. Parker 2008, p. 246. Parker distinguishes two criteria to define what 'empire' meant for the Romans. The first is the political and military reality of governance; the second is the 'mental map' portrayed through imperial ideology and propaganda. The Peutinger map could thus be compared to the Piazza Armerina mosaic, on which a personification represents India as a Roman-ruled province. Although India never formed a part of the Roman empire, it played an important role in imperial self-presentation, in which the memory of Alexander's conquests was never far away. See Parker 2008, p. 140, 203-227, 246-250.

96. *SEG* VII 135 ; Charlesworth, 1951, p. 142 ; Sidebotham 1986, p. 92 (n. 69).

> …grain in sufficient amount for those involved with shipping, because the merchants do not use it… [97]

Apparently, grain was imported at Muziris for resident western dealers, who probably acted as middlemen : they bought Indian merchandise which they resold to merchants coming from Egypt. It is also possible that those traders were representatives of the rich trading firms. The 'merchants' (ἔμποροι) from the second part of the sentence undoubtedly denote native Indian traders, who did not eat imported grain but locally cultivated rice [98]. Other indications are to be found in the papyri. A papyrus from Arsinoë contains a census list of the year 72/73 AD, in which a man is mentioned who was exempted from paying taxes : it concerns a certain Gaius, alias Diodorus, who was in India [99]. The Muziris-papyrus could also point in this direction, if Casson rightly states that the contract was written in Muziris [100].

These elements all seem to indicate that there was a community of western merchants in Muziris [101]. However, it is wrong to use the word 'colony' in this context : this denotes an effective capture of land. It seems impossible that the most important trading city of the Tamil Chera Kingdom would have been controlled by Romans from distant Egypt. Especially the idea of Roman cohorts encamped at Muziris looks absurd [102]. Muziris should rather be considered a big and cosmopolitan city containing numerous trading diasporas. Since trading communities are always characterised by intercultural exchanges and intermingling, it is perhaps more correct to speak of 'westernized merchants' rather than 'western merchants' [103]. It

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97. *Periplus Maris Erythraei*, 56. (Trans. L. Casson).

98. Casson 1989, p. 24 ; Young 2001, p. 30. Still, it is possible that οἱ περὶ τὸ ναυκλήριον denotes the crew of the trading ships, who would need grain to eat while waiting for the return voyage to Egypt. On the other hand, Casson thinks the crew's provisions would not be mentioned among the items merchants can expect to sell at Muziris. He concludes that these men were western merchants residing in Muziris. See Casson 1989, p. 264.

99. *P. Lond*. II. 260, column 3, line 42 ; Casson 1986, p. 79.

100. Casson 1990, p. 195, 202-206. Thür and Rathbone on the other side, Thür 1987, p. 230.

101. For a similar conclusion, see Tomber 2008, p. 148.

102. The *Periplus* makes clear that Indian kings supervised their trading ports very well. See for example the chapter on the port of Barygaza, in which the author mentions that western vessels were guided to the port by local ships sent by the king. A bit further, he tells us that ships arriving at smaller ports to the south were brought under guard to Barygaza. See *Periplus Maris Erythraei*, 44, 52.

103. Muziris could thus be compared to its counterpart in the Roman Empire, Berenice. Archaeological surveys prove the multicultural composition of this city's

is quite possible that these westernized merchants had their own trading quarter, where they maybe erected a temple for Augustus which is now so elusively depicted on the *Tabula Peutingeriana*.

Yavanas

After having investigated western indications for Graeco-Roman presence in India, I will now turn my attention to Indian sources. Some Indian texts refer to *Yavanas*, a specific group of foreigners who may be identified as 'Romans'. Two important source categories are examined: on the one hand the aforementioned Tamil poetry and on the other hand the cave inscriptions of Karli, Nasik and Junnar. I also deal with the identity of these *Yavanas* and try to answer the question if the references are really about Graeco-Roman traders.

The term *Yavana* is derived from the prakrit word *Yona*, which in turn is derived from Persian *Yauna*, designating the Ionic Greeks[104]. The word *Yauna* first occurs in the Behistun inscription made by Darius I[105]. When the Greeks came into contact with India after the conquests of Alexander and the formation of the Indo-Greek kingdoms, the term was adapted by the Indian people and came to designate anyone from the eastern Mediterranean. One of the earliest Indian references to *Yavanas* are found in the rock-edicts of the Maurya emperor Ashoka, mentioning Greek kingdoms at the northwestern border of the empire[106]. Also in the *Mahabharata*, the great Indian epic, Yavanas are found who are specified to be inhabitants of the western Greek kingdoms, inhabitants of Indian kingdoms, or foreign traders[107]. However, it is unclear which period these references reflect, as *Mahabharata* was written over a great span of time[108].

The *Yavanas* in sources from the second and the first century BC are chiefly inhabitants of Indo-Greek kingdoms[109]. They mostly appear in inscriptions from northwestern India, as Indo-Greek influence was strong there. One of the most famous examples of the like is the inscription of Heliodorus, an ambassador from

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demography. See SIDEBOTHAM 2011, p. 74ff ; TOMBER 2008, p. 72-76.

104. RAY 1988, p. 312.

105. Behistun-inscription, kolom 1, r. 15.

106. Ashoka, 2.1; 13.16 ; RAY 1988, p. 312.

107. PUSKAS 1987, p. 147.

108. The *Mahabharata* was revised until the Gupta period. See DONIGER 2011.

109. For an extensive treatise on the Greeks in Bactria and India, see TARN 1951.

the Greek king Antialcidas of Taxila. This inscription was found on a pillar in the present city of Vidisha in Madhya Pradesh [110].

It is clear that the term *Yavana* in the Tamil *Sangam*-literature does not denote Indo-Greeks anymore, but foreign traders. Ancient Tamil poems are yet difficult to date. The oldest corpus probably came into being between 200 BC and 200 AD, but some authors prefer a date between the first and the third century AD [111]. Now the big question is whether these *Yavanas* can be equated with Graeco-Roman traders. Although the term was originally used to denote the Greeks, it is possible that it was more broadly applied in the age when the Tamil poems were written. *Yavana* could just have meant 'someone from the West', including for example Persians or Arabs. The term could thus be compared with the Arab word *Firangi* ('Franks'), used for every European [112]. This shifting reached its peak in the Middle Ages, when the word *Yavana* was applied to every foreigner [113]. In what follows a few fragments from Tamil poems are presented. Each time I try to answer the question if the fragment really refers to Graeco-Roman traders. The discussed fragments are divided in three parts : 1) fragments which mention arriving *Yavanas* at the Tamil shores ; 2) fragments which tell something about residing *Yavanas* ; 3) fragments concerning the occupation of the *Yavanas* in India.

> …Muciri [= Muziris], the city where the beautiful vessels, the masterpieces of the Yavanas, stir white foam on the Periyar, river of Kerala, arriving with gold and departing with pepper… [114]

> …While every day you take your pleasure as women wearing their shining bangles bring you the cool and fragrant wine carried here by the Yavanas in their excellent ships… [115]

These fragments, which probably date from the first century AD [116], mention *Yavanas* arriving at the south-western shore of India. The *Yavanas* were interested in pepper, for which they gave gold and wine in exchange. This information is in remarkable concordance with the other sources. We know that a lot of wine

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110. Marshall 1909, p. 153-156 ; Ray 1988, p. 312 ; Stein 1934/1935, p. 343-344 ; Tarn 1951, p. 380-381, 388.

111. Ray 1988, p. 313 ; Zvelebil 1975, p. 5, 31. For a summary of the problems concerning the date of early Tamil poems, see Zvelebil 1973, p. 23-45.

112. Ball 2000, p. 131 ; Parker 2008, p. 173.

113. Ray 1988, p. 312.

114. Casson 1989, p. 296 ; Meile 1945, p. 90-92.

115. *Purananuru*, 56.17-20. (Trans. based on Hart's and Heifetz's.)

116. Cimino 1994, p. 65.

was exported to the Indian kingdoms [117], that Rome was nearly addicted to Indian pepper [118] and that western traders exported great quantities of gold to India [119]. Furthermore, we already saw that western merchants often called in at the port of Muziris, where some of them probably settled in a trade community. It is thus reasonable to assume that the *Yavanas* operating in these fragments were really Roman traders [120].

> ...In various quarters of the city [=Puhar, on the India's east coast] houses of wealthy *Yavanas* could be seen… [121]

This fragment comes from the *Shilappadikaram*, a Tamil epic from a later date than the *Sangam* corpus. It was written between 200 and 600 AD, but the story is probably older [122]. When considering the date, it becomes possible the author was describing residents from the Roman Empire, although prudence is required here. In my opinion, it is possible that between ca. 100 and 250 AD Roman merchants had settled in Indian trading ports on the east coast. For the second century AD marked an increase in the Indo-Roman trade, allowing western traders to explore the east coast [123]. The city of Puhar is furthermore mentioned

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117. *Periplus Maris Erythraei*, 39, 49, 56 ; Will 1991.

118. For example, see *De re coquinaria* by the Roman cook Apicius, who lavishly flavoured his dishes with pepper. For a survey of Indian products used in Roman cuisine, see Ricotti 1994, p. 101-107. See also Pliny, *Naturalis Historia*, 12-13, in which the author inquires into the geographic origins of eastern spices. The import of pepper in the Roman empire is also attested by archaeological finds in the port of Berenice. See Cappers 1999, p. 185-197. For a broad research on the spice trade of the Roman Empire, see Miller 1969.

119. This is especially made clear by the numerous coin finds from India. For the most recent catalogue, see Turner 1989. See also Sewell 1904 ; Sidebotham 1986, p. 27-31 ; Raschke 1978, p. 665-669 ; Wheeler 1954, p. 138-143 ; Ball 2000, p. 127 ; Tomber 2008, p. 30-37, 143. The *Periplus* also mention gold and coins as import products of the Indian kingdoms. See *Periplus Maris Erythraei*, 39, 49, 56.

120. The Indian historian R. Thapar also followed this thesis. See Thapar 1997, p. 17.

121. *Shilappadikaram*, 5.10.

122. Zvelebil 1975, p. 110-115.

123. There has already been much debate about a possible growth of the trade in the second century. Authors like Dar, Sewell and Turner think the trade declined after the reign of Nero, based on the great amount of coins from the Iulo-Claudian period. According to Raschke and Sidebotham, on the other hand, trade increased in the second century. See Dar 1977, p. 67 ; Raschke 1978, p. 669 ; Sewell 1904, p. 599-602 ; Sidebotham 1986, p. 141-162 ; Turner 1989, p. 27. In my opinion, there was a real trade growth in the second century, as indicated by various sources. The Muziris-papyrus, dating from the reign of Hadrian, shows us that shipments of

by the geographer Ptolemy (ca. 90-170 AD) as an *emporium*, a trade port known to Roman merchants [124]. It is thus possible that some of those merchants chose to settle there permanently, just as was probably the case in Muziris (see above). Yet in all respects the hypothesis that the *Shilapaddikaram* was referring to western residents remains impossible to confirm.

> …In a tent with double walls of canvas firmly held by iron chains, guarded by powerful *Yavanas* whose stern looks strike terror into every beholder… [125]

> … Unnoticed by the *Yavana* mercenaries, armed with swords, who kept watch at the gate, he passed the bastion… [126]

> … A female statue of excellent workmanship, made by the *Yavanas*… [127]

The first two fragments indicate that *Yavanas* were hired as body-guards by certain Tamil kings. The third shows us that *Yavanas* were also known as craftsmen or artists. Other Tamil poems likewise describe handiworks of *Yavanas* [128]. When we assume the existence of a western trading diaspora in cities like Muziris, it is probable that some members of this diaspora were integrated in due course in Indian society. Yet caution is on its place here : there is a huge social gap between merchant communities and body-guards or mercenaries. It is therefore not very likely that these body-guards were descended from Graeco-Roman traders. On the other hand, it is probable that the trade diaspora also attracted other people than traders to India's shores. De Romanis suggested that the *Yavana*-guards mentioned here arrived in India as archers, protecting western ships from pirates [129].

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huge value arrived in Egypt. Another indication is the increased knowledge of the geography and culture of the east in the second century. For example, Ptolemy was able to situate a lot of cities on the east and west coast of India. Most of these cities were located on trade routes. See Ptolemy, *Geographia*, 7.1. ; VOGEL 1952, p. 226-234. The Christian writer Clement of Alexandria is also worth mentioning, as he was the first westerner who described the Buddha. See Clemens Alexandrinus, *Stromata*, 1.15.71. Recent interpretations of coin finds likewise show that the Indo-Roman trade activities on India's east coast intensified during the second century AD. See TOMBER 2008, p. 36.

124. Ptolemy, *Geographia*, 7.1.13.

125. PILLAI, 1904, p. 37-38.

126. *Shilappadikaram*, 14.11.

127. MEILE 1945, p. 114.

128. MEILE 1945, p. 114-117.

129. DE ROMANIS 1997, p. 104 ; TOMBER 2008, p. 27. Archers protecting merchant ships in the Indian Ocean are mentioned by Pliny. See Pliny, *Naturalis Historia*, 6.26.101.

We can conclude that the Tamil poems provide a unique view of western traders from Indian perspective. Yet is it necessary to use these sources with caution. In most of the cases it is impossible to come to definitive conclusions, as the term *Yavana* was more broadly applied in the course of time. Ball's critical attitude is to be preferred above the interpretation of older historians, who considered each *Yavana* as a Roman [130]. Yet when taking the context into account, it is still possible to identify some of the *Yavanas*. For a very long time, the word *Yavana* just meant 'Greek', so it is not unreasonable to assume that some *Yavanas* operating in recognizable situations were actually merchants from the Roman Empire.

A last category of sources mentioning *Yavanas* are inscriptions found in Central-India, namely in the caves of Karli, Nasik, and Junnar. This kind of evidence is even more problematic than the Tamil poems. The inscriptions are only fragmentarily preserved and raise insurmountable interpretative problems.

Karli, Nasik and Junnar lie in the Western Deccan, along important trade routes connecting India's coast with the interior. The economic significance of these cities is proven by the numerous wars fought to control them, especially by the Saka and Sātavāhana dynasties [131]. At the end of the nineteenth century, archaeologists discovered some caves which served as Buddhist shrines, termed *Caityas* [132]. Within these caves numerous votive inscriptions were found, some of which were made by *Yavanas*. The context and the nature of the inscriptions show that these *Yavanas* were completely indianized.

In Karli *Yavanas* are found with names like Sihadhayana, Dhamadhaya, Yasavadhana and Cita. Most of them came from a city called *Dhenukakata* [133], but Cita was an inhabitant of *Gatas*. Also in Junnar an inscription was found mentioning *Yavanas* from *Gatas*, namely Cita and Irila, the first of which is probably the same person as the one from Karli [134]. Cita and Irila are somewhat strange names for Indians. In the early 20th century, S. Konow proposed the unlikely thesis that *Gatas* actually meant 'Goths' [135]. O. Stein refrained from any identification [136].

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130. Ball 2000, p. 131. For the traditional interpretation, see Pillai 1909, p. 37-38 ; Wheeler 1954, p. 132-133.

131. Casson 1983, p. 168 ; Cimino 1994, p. 71. For more information on the Sakas, see Bivar 1983, p. 195-197 ; Casson 1989, p. 186 ; Lebedynski 2003, p. 80 ; Tarn 1951, p. 232-233. For the Sātavāhanas, see Smith 1962, p. 217-227.

132. For a thorough description of these caves, see Fergusson, Burgess 1880, p. 232-242, 248-279.

133. Cities of which the identification is uncertain are shown in italics.

134. Ray 1988, p. 315 ; Stein 1934/1935, p. 348.

135. Konow 1912.

136. Stein 1934/1935 p. 348-350.

According to Ray, *Gatas* is derived from Sanskrit *Garta*, *i.e.* a part of Trigarta or Kangra, areas mentioned in the *Mahabharata*[137]. R. Thapar defended a daring proposition, namely that *Gatas* was a corrupted word, corresponding to Coptus (Coptos > Gapta > Gata), an emporium on the Nile which played an important role in the Indo-Roman trade[138]. If this seemingly far-fetched view was right all the same, the inscriptions would be a unique testimony of an indianized western merchants from Coptus.

Another important inscription was found in cave XVIII in Nasik, made by the *Yavana* Indragnidatta, the son of Dhammadeva from *Dattamitri*[139]. W.W. Tarn identified *Dattamitri* as Demetrias, an Indo-Greek city at the estuary of the Indus[140]. In Nasik cave XXIV archaeologists discovered a relief of an owl, which was interpreted as a western iconographical motif[141].

The dating of the cave inscriptions is of prime importance for this discussion. Stein dated the Karli *caitya* to the first century BC and the inscription in Nasik cave XVIII to the end of the first century AD[142]. Tarn thought all inscriptions were made in the first century BC[143]. According to Ray, the Karli *caitya* dated from the first century AD and the inscription from Nasik cave XVIII from after 110 AD[144]. However, none of these authors supported their given dates with consistent arguments. We only know for sure that the caves were in use from roughly the second century BC until the second century AD, so the inscriptions could have been made during this whole time span[145].

Assuming that the inscriptions date from the first century BC, it is not possible to consider the *Yavanas* as indianized Roman traders[146]. In that case, Tarn's thesis

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137. Ray 1988, p. 315.

138. Thapar 1992, p. 22.

139. Stein 1934/1935, p. 351.

140. Tarn 1951, p. 257. According to E. Seldeslachts, Dattamitri should however be identified as Demetrias on the Oxus, in far-away Bactria. See Seldeslachts 2004, p. 278-279.

141. Cimino 1994, p. 71 ; Deo 1991, p. 43.

142. Stein 1934/1935, p. 344, 351.

143. Tarn 1951, p. 254.

144. Ray 1988, p. 314-315.

145. Fergusson, Burgess 1880, p. 232-233.

146. The trade between Rome and India began with the conquest of Egypt in 30 BC, so it would be impossible that indianized Graeco-Roman merchants were already residing in India at that time.

must be endorsed, namely that these *Yavanas* were not Graeco-Roman traders, but inhabitants of Indo-Greek poleis in northern India who came to the Western Deccan to trade[147]. When accepting a later date, this thesis does not hold true anymore as the Indo-Greek cities disappeared at the latest around the beginning of the first century AD[148]. Two possibilities remain : 1) The name *Yavana* is not ethnical, but refers to a certain social status ; 2) The *Yavanas* in these inscriptions are indianized foreign traders.

If the latter proposition holds true, it is possible that these *Yavanas*, or their parentage, originated from the Roman Empire. That is why *Dhenukakata*, the home of many *Yavanas*, has drawn the attention of some historians. Could there have been a western community ? In one of the inscriptions, the city is described as being a *vaniya-gama*, a community of traders[149]. Further identification remains difficult. According to E.H. Johnston, *Dhenukakata* was the same city as *Dounga* in Ptolemy's *Geographia*, lying on India's west coast[150]. H.S. Thosar endorsed this hypothesis, but he thought Ptolemy gave the wrong coordinates. He identified *Dhenukakata*/*Dounga* as the city of Junnar in the interior. He also thought Ptolemy's *Omenogara* was the same city, saying that Omenogara could be translated as Minnagara, the capital of the Sakas. Thosar made his confusing equating of cities clear in the following way. *Dhenukakata* would have been the name of Junnar when it was in the hands of the Sātavāhana empire. When the Sakas wrested control over the city from the Sātavāhana, they would have renamed the city as Minnagara, making it their capital[151]. Thus, *Dhenukakata*/*Dounga*/*Minnagara* would have been the biggest and most important city of the Deccan. However, Thosar's far-reaching hypothesis raises some questions. How does he incorporate the fact that Ptolemy mentions the existence of a city called Minnagara (Μινάγαρα), clearly another city than *Omenogara* ? This city was situated between Ujjain and Barygaza – a lot more northerly than Junnar – and is without doubt the real capital of the Saka kingdom[152]. Furthermore, Thosar does not give real arguments for identifying Ptolemy's *Dounga* as *Omenogara*.

On the other hand, the identification of *Dhenukakata* as Junnar may be correct. This city was an important trading center in the western Deccan, making

147. Tarn 1951, p. 254-258.

148. Tarn 1951, p. 350, 353.

149. Thapar 1997, p. 34.

150. Johnston 1941, p. 208-213.

151. Thosar 1991.

152. The author of the *Periplus* also calls Minnagara the capital of the Sakas. He said the city lay inland from Barygaza, which is in concordance with Ptolemy's information. See *Periplus Maris Erythraei*, 41.

the existence of a western community possible. Findings of works of art with a western-looking appearance may also point in that direction. In a *caitya* hall in Junnar triskelion motifs have been found, which according to S. Vasant originated from the West. Similar triskelions were found in cave XVIII of Nasik, maybe not coincidentally the cave of Indragnidatta the *Yavana*[153]. Another western element found in Junnar is an alabaster bowl depicting the birth of Eros[154]. Still, we must avoid jumping to premature conclusions and we must not ignore the possibility of Indo-Greek influence instead of Roman legacy.

When accepting the presence of Graeco-Roman traders in Junnar, we must remember that this cannot yet have been the case in the time of the *Periplus*. The author of the *Periplus* knew that important trade routes were running through the western Deccan, but he gives no indication of Graeco-Roman traders having penetrated this far inland[155]. This probably changed in the second century, when the activity of Roman traders expanded towards the interior of India[156]. In this respect Thapar's identification of *Gatas* as Coptus seems very attractive, but this hypothesis will always remain speculative.

Conclusion

This paper examined the presence of Graeco-Roman traders in the Indian Ocean by focusing on two important aspects. An analysis of various sources shows that we must refrain from far-reaching interpretative frameworks when inquiring into Indo-Roman trade. A general denial of Graeco-Roman presence in the Indian Ocean and India itself is no tenable stance, as many sources prove the opposite is true. However, it is equally wrong to take Graeco-Roman dominance in the trade networks for granted. It is clear that native traders already played a fundamental role for centuries before westerners even appeared in the Indian Ocean. It is now possible to reconcile these two extremes. Graeco-Roman traders could and did sail to India using their own ships, alongside Indian and Arab traders and their traditions. However, we do not have an exact idea about the intensity of Roman presence in the Indian Ocean. In this view, it is important to leave the question about Strabo's 120 ships unanswered : it is impossible to refute or confirm this number, unless referring to a broader hypothetical framework. Based on the

153. This symbol appeared on Lycian coins in the fifth century BC and is also to be found on coins of Agathocles, the tyrant of Syracuse. The Greeks connected this symbol with the cult of Apollo. See VASANT 1986, p. 106.

154. DEO 1991, p. 43 ; VASANT 1986, p. 107 (n. 16).

155. *Periplus Maris Erythraei*, 51.

156. As indicated by Ptolemy's greatly enhanced knowledge of India's inland regions. See n.111.

sources, we can only state that Graeco-Roman traders *were present* in the Indian Ocean, having acquired a certain role within the old maritime networks.

Our information is even less clear about permanent settlements of Western merchants in India. In any case, it looks like Graeco-Roman trade communities existed in certain emporia like Muziris. Tamil poems possibly seem to indicate a gradual diversification in activities practiced by the trade diaspora, thus implying an integration in the Indian society. It is possible that western traders in the Western Deccan were indianized to an extensive degree. Here, *Yavanas* appear as Buddhists, using Indian languages and having Indian names. These witnesses show us another specific characteristic of the Indo-Roman trade : it was essentially a dynamic, multicultural trade in which people exchanged ideas and to a certain extent intermingled. After two centuries, the participating cultures were perhaps not always strictly distinguishable anymore. In this view, it is wrong to assume that the trade routes were dominated by one of them, be it by Romans, Indians or Arabs.

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