Peoples living around the Mediterranean Sea in the time before Islam were drawn by a sort of centripetal force, which meant that they tended to focus more on the internal maritime horizon of their sea than on horizons beyond it. Yet the ancient Mediterranean was not a hortus conclusus; it had at least three gateways to the outer world. The first, largely underexploited in antiquity, linked the Mediterranean to the Atlantic world; the second, vital for the Greek world of the archaic and classical ages, connected with the Black Sea regions; and the third led to the Red Sea and the Indian Ocean. Unlike the two first gateways, the third did not possess a natural waterway joining the Mediterranean and the Indian Ocean. It comes as no surprise therefore that throughout antiquity, from the 7th century BCE to the 7th century CE, whenever the Nile valley was perceived as an integral part of a Mediterranean world, the problem emerged of how to connect the two shores of Egypt.

Different logistical solutions have been adopted at different times, or practiced at the same time, in a continuous effort to adapt to shifting requirements and conditions. Each solution had to grapple with three major environmental challenges—the sea, desert, and river—in order to link the Mediterranean and the Red Sea. The first challenge was navigating the Red Sea north of 20° north latitude line. Apart from treacherous coral reefs and unfriendly desertic shores, the northern part of the Red Sea was beset all year by winds that blew constantly from the north. As a consequence, the further north one had to sail, the more time-consuming, difficult and dangerous the navigation was.\(^1\) The second challenge was transferring the cargoes between the Red Sea and the Nile River. For this, the further south one docked, the more laborious and expensive the crossing was. The third challenge was sailing up the Nile. During the summer the etesian winds helped, but only up to a certain point, since they weaken considerably south of Asyut.\(^2\)

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2. J. P. Cooper, No easy option: the Nile versus the Red Sea in ancient and medieval north-south navigation, in Maritime Technology in the Ancient Economy: Ship Design and Navigation, ed. W.V. Harris, K. Iara (Supplement of the Journal of Roman Archaeology, 84), Portsmouth, Rhode
medieval caravan roads bound for Myos Hormos, Berenice or ‘Aydhāb usually started no further south than Coptos or Qus (Edfu during the Early Ptolemaic period was just a short-lived exception).

Different combinations of solutions for the sea navigation, desert crossing and river sailing components resulted in a variety of ways for connecting the Nile and the Red Sea. Since each combination had its positive and negative features, none was markedly better than any other. Nonetheless, each one could be deemed more suitable to a particular kind of trade. Very generally, we may say that bigger businesses required larger ships, which would not easily manage the northern part of the Red Sea. Conversely, smaller vessels, less fit for bulky cargoes, could more easily brave the navigation up to Myos Hormos and even up to Clysma, unloading their shipments nearer to the Nile.

A waterway directly connecting the Nile and the Red Sea—repeatedly excavated in antiquity—minimized the desert crossing and river journey, although it required the greatest amount of sea travel and the constant maintenance of a canal linking the river to the Gulf of Suez. Such a solution, which had been ideal for the triremes of the Persian navy during part of the 6th and 5th centuries BCE, proved inadequate in the 3rd century BCE for the Ptolemaic elephant carriers (elephantegoi). Erected after May/June 264 BCE (l. 27), the Pithom stele triumphantly chronicles the excavation in 270/269 BCE of a canal between the Nile and Red Sea (l. 16), and then the foundation of Ptolemais epi theron, on the Sudanese coast, and the capture and shipment by sea and canal of elephants from Ptolemais epi theron (ll. 24-25). This enthusiastic account by the Atum priests ignored the extreme difficulty of sending the elephant carriers up to the Suez. Both papyrological and epigraphical evidence show that, not even ten years later, elephants had to come ashore much further south (hence the establishment of a new port at Berenice, 24° lat. N) and get to Edfu on the Nile via a new caravan road.

This itinerary of sea navigation, desert caravan route, and Nile river travel—necessary for the elephant transfer—was less suitable to frankincense and aromatics merchants. Their seagoing ships, smaller than the elephant carriers, could easily sail up to Myos Hormos, from where the most direct Nilotic destination was Coptos. In the course of the second half of the second century

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2.  Failing to distinguish between ships of different sizes affects, in my view, Cooper’s argument (*No easy option*).

BCE, the Coptos-Myos Hormos nodes replaced Edfu-Berenice as the main hubs of the commercial transfer between Nile and Red Sea, and it was on that infrastructural base that the Ptolemaic and early Augustan trade in the *Erythra kai Indike thalassa* blossomed—until the discovery of the South Indian emporia, with their huge amounts of black pepper, brought back the use of very large seagoing vessels. The revival of large carriers meant in turn the resurrection of Berenice, the old destination for the Ptolemaic elephant carriers. A new caravan route emerged, connecting the first leg of the Coptos-Myos Hormos road to the last leg of the Edfu-Berenice road. Consequently, the same Nilotic emporium of Coptos served both Myos Hormos, from where smaller ships set sail to South Arabia, East Africa and Northwest India, and Berenice, which served the very large pepper carriers bound for South India.

Under Trajan, a new canal was dug between Nile and Red Sea.5 Unlike the more or less ephemeral canals of Necho, Darius and Ptolemy Philadelphus, Trajan’s canal had a very long life, becoming a permanent presence on the Red Sea in late antiquity. Such longevity is all the more remarkable insofar as it required a periodical maintenance of the canal bed and embankments was achieved by imposing annual corvées in order to ensure.6

Ample evidence exists to show that Clysma was much more important in late antiquity than in the early imperial period.7 Still, it is controversial how much of this development is attributable to the canal that connected the Red Sea port and the Nile. Although the commercial relevance of late antiquity Clysma is generally established, opinions differ about the utility to Clysma’s traders of a canal that was not navigable all year round. It is debated, in other words, whether the canal’s seasonal navigability was suited to the Indian Ocean trade schedule. It has been often claimed that the canal’s navigability was, as a rule, restricted to the time when the river was at its maximum.8 It has been consequently inferred that

5 A tax for the excavation of the new canal is attested by SB 9545, 32 (September 2nd 112 CE); OMarbpriv (September 15th 112 CE); and probably by OCair GPW 99 (August 25th 112 CE); OEleph DA1K 18 (August 8th 114 CE); OEleph DA1K 19 (August 19th 114 CE); OWilck 89 (August 20th 114 CE); OWilck 90 (August 23rd 114 CE); OWilck 91 (July 25th; August 23rd 114 CE); O. Wilcken 92 (August 29th-113 CE-August 28th 114 CE); OBodl 871 (September 29th 114 CE). On all this, cf. A. Joerdens (with P. Heilporn’s and R. Duttenhöfer’s Anhängen), *Neues zum Trajanskanal*, in *Proceedings of the 24th International Congress of Papyrology. Helsinki, 1-7 August, 2004*, ed. J. Frösén, T. Purola, E. Salmenkivi (Commentationes Humanarum Litterarum, 122:1), Helsinki, 2007, pp. 469-485.

6 Maintenance works are attested by POxy 4070 (208 CE?); PCairIsid 81 (April 9th 297 CE); POxy 3814 (3rd.-4th. cent. CE); POxy 1426 (332 CE); PSI 87 (June 29th 423 CE); PSI 689a (423 CE); PSI 689b (423 CE?); PSI 689d (August 29th 420 CE-August 28th 421 CE); PWashUniv 7 (5th.-6th. cent. CE).


the canal would have been of little use for a commercial enterprise that would have required too early departures and allowed too late returns. It is therefore not a coincidence, as has been pointed out, that the Muziris papyrus loan contract—arguably signed after Trajan’s canal was completed—expects the seagoing vessel returning to the Red Sea from Indian lands to connect to Coptos, further south than Clysma. Admittedly, Trajan’s canal did not divert all the India trade to Clysma. In particular, it did not divert the South India trade documented by the Muziris papyrus, which was conducted with vessels too large to make the voyage up to Clysma. However, this does not preclude the hypothesis that a large number of the ships active in the Erythrà thalassa trade were attracted by the navigability of Trajan’s to the northernmost reaches of the Red Sea. In the present paper, it will be argued that Erythrà thalassa traders could take advantage of the intermittent navigability of Trajan’s canal and, consequently, that Clysma’s trade was favored—to some extent—by the addition of a direct water connection to the Nile. In fact, scanty but inequivocal evidence shows that commodities between Alexandria and Clysma could be transferred on water both in the summer, before seagoing vessels set out from Clysma, and in the winter, when the same ships returned to the same harbor.

It is self-evident that Trajan’s canal must have been navigable when the water level of the Nile was at its peak and inaccessible when the river was at its lowest. It is sometimes claimed, though, that navigability began only after plenitude, which would leave very little time for a departure by the end of September. Such a notion is based on the assumption that in antiquity (when the canal was intermittently navigable) as well as in medieval times (when the canal was never navigable) water was released into the canal only after the river had reached its height.\(^6\) In the middle ages earthen dams, annually constructed, prevented the Nile from inflowing into the canal before plenitude was attained.\(^7\) However, there is no proof that the medieval practices of water management, aimed at irrigating villages of the lower delta, extended back to the Roman period, when there is no evidence for such a procedure, and when the imperial administration had opposite concerns.\(^8\) At any rate, an indication that Trajan’s canal did allow vessels to reach Clyisma on time is given by a well-known passage of Lucian’s *Alexander or the False Prophet*:

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ἀναπλέυσας ὁ νεανίσκος εἰς Αἴγυπτον ἁχρὶ τοῦ Κλύσματος, πλοίου ἄναγομένου ἐπείσθη καὶ αὐτὸς εἰς ᾿Ινδίαν πλέοσαι, καπειδήπερ ἐβράδυνεν, οἱ δυστυχεῖς ἑκεῖνοι οἰκέται αὐτοῦ, οἰηθέντες ἄν ἐν τῷ Νείλῳ πλέοντα διεφθάρθοι τὸν νεανίσκον ἡ καὶ ὑπὸ λῃστῶν—πολλοὶ δὲ ἦσαν τότε—ἀνηρήσθαι, ἐπανῆλθον ἀπαγγέλλοντες αὐτοῦ τὸν ἄφανισμόν.\(^9\)
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\(^{11}\) Trombley, ‘Amr b. al-‘Ās’s *Refurbishment of Trajan’s Canal*, p. 102: “The canal was usable only in the months immediately following the rise of the Nile […] Al-Muqaddasi mentions the dams that blocked the canal until its annual opening at the time of the Christian festival of the Exaltation of the Cross (conventionally dated 14 September in the medieval Coptic calendar of festivals)”; Cooper, *Egypt’s Nile-Red Sea Canals*, p. 204: “Little is known of the navigational functioning of Persian and Ptolemaic canals that rose near Bubastis. However, their Roman and Arab successor, even enjoying an apparently superior offtake some 65 km further upstream, was almost certainly only navigable on a seasonal basis. The ceremonies marking its annual opening—with the breaking of a dam at its mouth in Cairo—are recorded by Islamic-era authors, who in turn attribute pre-Islamic origins to them. In the early centuries of Islam, these ceremonies took place at ‘Ayn Shams (Heliopolis) on the Christian festival of the Veneration of the Cross, the Coptic version of which occurs on the seventeenth day of the month of Tūt in the Coptic calendar, corresponding to 14\(^{th}\) September of the Julian calendar”.


\(^{13}\) K. Blouin, *Triangular Landscapes. Environment, Society, and the State in the Nile Delta under Roman Rule*, (Oxford Studies on the Roman Economy), Oxford, 2014, p. 34: “[…]In the second century AD, a series of local, regional and, perhaps too, deltaic transverse waterways facilitated the movements of goods and people within Lower Egypt […] The digging […] of such large-scale waterways implies the diversion of important quantities of water into their course and, consequently, a drop of the water draft in the deltaic network and the silting of the more sluggish branches”.

\(^{14}\) Luc., *Alex.* 44.
It does not seem appropriate to minimize the value of this passage. Even if it did not refer to a real event and was only “a fictional narrative” made up by a Greek satirist, **it should be acknowledged that Lucian makes the effort to explain in realistic terms (πολλοὶ δὲ ἴσαν τότε) the development of the story. Besides, one should not rule out the possibility that Alexander or the False Prophet was written during or after Lucian’s stay in Alexandria, when he could very well have known how local merchants reached Clysma.** Although it can be wondered for where exactly the ship was bound, we have no reason not to believe that the text proves that **it was possible to sail from Alexandria to Clysma early enough to get on board ships bound for, allegedly, India.**

On the other hand, there is also evidence to show that when Clysma’s ships landed back at their home harbor, Trajan’s canal could be still navigated. The first piece of evidence is in a passage of Epiphanius’ of Salamis Panarion. His overview of the Roman ports in the Red Sea carries the authority of the author’s origin from Palaestina and lengthy residence in Egypt.

Epiphanius mentions only three ports: Aila and Clysma, which are **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, δὲ ἢς θαλάσσης διάφοροι, ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, οὐχὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, ἢς θαλάσσης διάφοροι, **and Berenice that lays **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, δὲ ἢς θαλάσσης διάφοροι, ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, δὲ ἢς θαλάσσης διάφοροι,** otherwise the **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, **and **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** or **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** as a consequence of the distant locations of the two groups of ports, the Indian commodities are poured **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι, δὲ ἢς θαλάσσης διάφοροι, ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** and Berenice that lays **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** and **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** or **ἐπὶ τὰ στόμια τῆς Ῥωμανίας διακεκριμένοι,** as a consequence of the distant locations of the two groups of ports, the Indian commodities are poured. **As a consequence of the distant locations of the two groups of ports, the Indian commodities are poured.**

Epiphanius does not mention any port that may be identified with the 4th century CE military installation (converted into a church in the next century) at Abū Sha‘ār, whose epigraphic evidence suggests, though, some commercial role: Sidebotham, Berenike and the Ancient Maritime Spice Route, pp. 182-184.

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15 Lucian held office in Egypt (Luc., Apol. 12), while he was writing his Apologia ἐν γῆρα — ὡστόσο (4). Alexander or the False Prophet was written after Marcus Aurelius’ death (Luc., Alex. 48).
16 Sos., ἥν. 6.32.3: Ἐπιφάνιος δὲ ἄμφι Ἕβρανδονκαν κόμπω τὸν ἴδιον ἢν, νομεῖ έλευθεροπόλεως, ἐκ νέου δὲ ὑπὸ μονοχοίς ἁρίστοις παῖδευθεὶς καὶ τοῦτον χάριν ἐν Ἀἰγύπτῳ πλείστον διατίρας χρόνον ἐπισημότατον ἐπὶ μοναστικῇ φιλοσοφίᾳ γέγονεν παρὰ τοῖς Αἰγύπτιοι καὶ Παλαιστίνοις κτλ.
17 Epiphanius, panarion III 16-17.
18 Epiphanius does not mention any port that may be identified with the 4th century CE military installation (converted into a church in the next century) at Abū Sha‘ār, whose epigraphic evidence suggests, though, some commercial role: Sidebotham, Berenike and the Ancient Maritime Spice Route, pp. 182-184.
and Pelusium on the other, are alternative destinations for the Indian commodities depending on which Red sea port they used to enter Egypt. The ships that landed at Berenice sent their cargoes across the caravan roads of the Eastern desert to the Thebaid; those that reached Clyisma were sent to the other Egyptian destinations “through the Chrysorrhoas River that is the Nile”. There is no doubt that here a navigation through the Traianos potamos is suggested. It is therefore apparent that around 375 CE ships loaded with Indian goods arrived at Clyisma and proceeded through the Traianos potamos up to Alexandria, the rest of Egypt and Pelusium.

Almost two centuries after Epiphanius’ Panarion, evidence for the movement of Indian commodities through Trajan’s canal is provided by a pertinent passage in Olympiodorus’ of Alexandria commentary to Aristoteles’ Meteorology.

There is no need to emphasize that Olympiodorus was in a position to know very well how Indian commodities were transferred from the Red Sea to the city in which he lived. In order to demonstrate that fresh water is less dense (“has not as much geodes”) than sea water, Olympiodorus refers to the frequent accidents by Indian Ocean seafarers (ινδικοπλεύσται), who loaded their ships to the maximum limit allowed by the sea waters. When they came to sail in canals or other water bodies (ἐν ποταμοῖς ἢ λίμναις), they sank because of the fresh water’s inferior buoyancy. The uninterrupted navigation of Indian Ocean seafarers, first by sea and then by canal and other water bodies, shows that Olympiodorus alludes to a shipment entirely by water from the Red Sea to Alexandria.²⁰

As stated, it is certain that Trajan’s canal was not navigable all year round. Certainly it was not navigable when the Nile was at its shallowest (see fig. 1) and maintenance work took place. In 297 CE, they lasted at least two months after

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¹⁹ Olymp., in mete. 81.
²⁰ For the term λίμνη denoting water bodies of the Nile delta, cfr. Blouin, Triangular Landscapes, p. 135.
April 9th. In 424 CE, they lasted three months, possibly starting from Pharmouthi 1st (March 26th) or slightly later.

In 424 CE, they lasted three months, possibly starting from Pharmouthi 1st (March 26th) or slightly later.

Fig. 1. From W. Willcocks – J.I. Craig, *Egyptian irrigation*, London, 1913, p. 182

By contrast, it is open to question how many of the remaining two hundred and seventy-five days Trajan’s canal was navigable. In this respect, the clearest indication is provided by a papyrus dating back to 710 CE, therefore referring to the canal after it was reopened by ‘Amr b. al-Ās.

These lines come from a letter in which Qurra b. Sharik, governor of Egypt, urges Basilios, dioiketes of Aphrodito, to convey as soon as possible, before the waters of Trajan’s canal recede, what had been already requested in terms of provisions for the ships in Klysma: should Basilios fail to deliver what is due while the canal was

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21 SB 7676.
22 PSI 689a, l. 5: χρῆσιν τῆς τριμήνου; l. 10: ἐργάσσασθαι ἐπὶ χρόνον μήνας τρις. It is unclear if in June 29th 423 CE (PSI 87) the three-month service was over.
23 PLond 1346, ll. 16-20.
still navigable, Qurra warns, Basilios will pay the expensive land transport up to Clyisma.24

The letter is dated January 3rd (Gregorian 7th) 710 CE and was received on February 9th (Gregorian 13th). Therefore, the sentence ἐὰν—γένηται ἀπόβασις τῶν ὑδάτων cannot refer to the beginning of the drop in water level, but must denote the moment when the water level had become so low as to hinder all sailing.25 This was not the first letter sent by Qurra to Basilios on that matter in that year,26 nor probably, was it the last.27 The pressing overtones urging for a prompt action suggest that Qurra was aware that his letter might not be delivered as soon as it was desirable.28 The thirty-seven days that elapsed between the writing and delivery of PLond 1346 are definitely more than the ten days between the writing and delivery of PLond 1351 and PRossGeorg 4, 16, but they are less than the forty-three days of PLond 1341, and much less than the fifty-nine days of PLond 1379. Nothing suggests that Qurra’s demand was preposterous or that the flood was exceptionally late that year and since we have no reason not to assume that PLond 1346 reflects the normal operational pattern of the connections between Clyisma and the Nile, we must conclude that Trajan’s canal remained navigable well beyond January 3rd. This may not have been sufficient for the South India traders, who had to leave for Egypt in December at the earliest.29 It is not unlikely, however, that other “Indian Ocean seafarers” could take advantage of the canal’s navigability in late winter. Information about the logistics of the India trade in late Antiquity can be inferred from a well-known passage of the Martyrium Arethae.

24 A road from Babylon to Clyisma is attested by the Itinerarium Antonini 169, 2 and partially confirmed by CIL III 6633 = ILS 657.

25 For a difference between the beginning of the dry season and the end of the navigability period, cfr. SB 10459 l. 11-12: ἔστι γὰρ ἥξιον ἀπόβασιν τῆς ὑδάτων τόῦ Τραϊανοῦ, ἧπερ εἰ ἧπερ τὸ ὕδωρ ῥήματα ε. [. .].

26 Cfr. PLond 1346, ll. 4-11: ἡμεν/ διαστηλαντες δια της διοικησις σοι/ δια διαφορα εξηλησιω

27 Fragments of other letters by Qurra on the same subject are SB 10459, PLond 1465 and, in Arabic, B.M. Or. 6232 (2), PLond 1465 l. 4: τὸ τέταρτον ἔτη ἐπεξεργασθεῖσα της διοικησις του σου suggests that they may all belong to the same eight indicio (709/710). It seems that Basilios did not succeed, cfr. PLond 1465 l. 1-2: ἐγένετο ἀπόβασις τῶν ὑδάτων τοῦ Τραϊανοῦ τοῦ βασταζαι αὕτη διὰ γῆς ἐως τοῦ αὐτοῦ Κλύσματος.

28 PLond 1346, ll. 12-16: δεχόμενος σον τὰ παρόντα γράψατα εὐθέως καὶ κατ’ αὐτὴν τῇ ὑγραν περὶ φον ἐν εἴ ἐστι διὰ της διοικησις σοφυ| ἐν αὐτῶν μὴ ὀστερόν τι τὸ σύνολον μήτε μὴν δεχόμενον ἐπιερόν ἡμῖν γραμμάτων περὶ τοῦτο| ἐν μέντοι συνεις καὶ ἐχεις φρένας.

29 Plin., n.d. 6.106: ex India renavigant mense Aegyptio Tybi incipiente, nostro Decembri, aut utique Mechiris Aegyptii intra diem sextum, quod fit intra idus Ianuarias nostras.
We may assume that the traditional route timings to Adulis were beneficial to the divine providence in assembling all those ships from so many different places. We may also assume that (as far as the trade between Egypt and India is concerned) the role of Adulis in late Antiquity was similar to that of Aden in medieval times: it was the place where the Indian commodities passed from the Arabian Sea ships to those bound for the other Red Sea ports. Of the sixty ships that anchored in the port of Adulis in 524 CE, those from Clysma were as many as twenty, those from Aila fifteen, those from Iotabis seven, those from Farasan Islands also seven, those from Berenice two and those from India nine. The text says nothing about the size of the ships, but it seems likely that the nine ships from India were of much larger size than the thirty-five from Clysma and Aila that had to sail the Red Sea all the way up to its northernmost shores. It seems likely, in other words, that the difference in size between the ships from Clysma and Aila on one side and those from India on the other was comparable to the difference, in pre-Portuguese times, between the ships that exported spices from Calicut to Aden on one side and those that re-exported part of the same spices from Aden to Toro on the other.\[\text{[31]}\]

The winter anchorage in Adulis of ships from Clysma, Aila and India\[\text{[32]}\] suggests that the ships from India had arrived from north-west India in early winter, sailing during what the rasulid almanacs call the \textit{dimâni} season. In fact, timetable of the sea routes between Adulis and India could hardly radically depart from the sailing seasons between India and Aden as described in the rasulid almanac.

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\[\text{[31]}\] Duarte Barbosa, \textit{Livro em que dá relação do que viu e ouvi no Oriente}, Lisboa, 1946, pp. 160-161: "Estes no tempo que prosperaram nos seus tratos e navegação, faziam nesta cidade naus de quilha de mil e mil duzentos bahares de carga [...] partiam desta cidade cada monção dez e quinze naus destas para o mar Roxo, Adem e Meca, onde vendiam muito bem suas mercadorias. Algumas ha hos mercadores de Juda, que dahy has leuauam em pequenos nauios ha ho Toro, e do Toro hiaoam ha ho Cairo". Apparently, the Toro ships were smaller (‘em pequenos nauios’), than the Calicut ships, whose tonnage—within 200 tons—was also rather modest.

written in 1271 CE by the Yemeni sultan al-Malik al-Ashraf ʿUmar ibn Yūsuf, where a distinction is made between a \textit{dimānī} season (early winter monsoon) and a \textit{tīrmāḥ} season (late winter monsoon). The ships that sailed according to the \textit{dimānī} season were supposed to leave India—actually North-West India—on October 16\textsuperscript{th}, to arrive at Aden between November 6\textsuperscript{th} and December 21\textsuperscript{st}, and to start they return voyage between March 26\textsuperscript{th} and May 6\textsuperscript{th}.\textsuperscript{33} This schedule does not apply to South India, off of which the unfavorable South-West monsoon keeps blowing at least until November 15\textsuperscript{th} (see fig. 2). In the first century CE, ships bound for Egypt used to leave between December and January 13\textsuperscript{th}.\textsuperscript{34} In medieval times, Calicut ships left for Aden as late as February/March.\textsuperscript{35} In al-Ashraf’s almanac, ships from South India sailing with the \textit{tīrmāḥ} season reach Aden by April 15\textsuperscript{th} and leave from there by August 21\textsuperscript{st}.\textsuperscript{36}
An arrival at Adulis any time in November/December would have left enough time for the Clyisma ships to re-export the Indian commodities to their home port while Trajan’s canal was still navigable. Conversely, those ships returning from South India and Sri Lanka reached Adulis too late for their cargoes to be transferred via Trajan’s canal. Along with the Thebaid demand for Indian commodities, the persistence of trade activities in Berenice during late Antiquity owes not a little to the delayed timing of the oceanic crossing from South India.