



### **Anonymous**

# The Commerce and Navigation of the Erythræan Sea

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### PREFACE.

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In the Preface to my former work, "Ancient India as described by Megasthenes and Arrian," I informed the reader that it was my intention to publish from time to time translations of the Greek and Latin works which relate to ancient India, until the series should be exhausted, and the present volume is the second instalment towards the fulfilment of that undertaking. It contains a translation of the Periplûs (i. e. Circumnavigation) of the Erythræan Sea, together with a translation of the second part of the *Indika* of Arrian describing the celebrated voyage made by Nearkhos from the mouth of the Indus to the head of the Persian Gulf. Arrian's narrative, copied from the Journal of the voyage written by Nearkhos himself, forms an admirable supplement to the Periplûs, as it contains a minute description of a part of the Erythræan Coast which is merely glanced at by the author of that work. The translations have been prepared from the most approved texts. The notes, in a few instances only, bear upon points of textual criticism, their main object being to present in a concise form for popular reading the most recent results of learned enquiry directed to verify, correct, or otherwise illustrate the contents of the narratives.

The warm and unanimous approbation bestowed upon the first volume of this series, both by the Press in this country and at home, has given me great encouragement to proceed with the undertaking, and a third volume is now in preparation, to contain the *Indika* of Ktêsias and the account of India given by Strabo in the 15th Book of his Geography.

Patna College, June 1879.

### ANONYMI [ARRIANI UT FERTUR] PERIPLUS MARIS ERYTHRÆI.

## TRANSLATED FROM THE TEXT As given in the *Geographi Græci Minores*, edited by C. Muller: Paris, 1855.

WITH INTRODUCTION AND COMMENTARY.

### PERIPLUS OF THE ERYTHRÆAN SEA.

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### Introduction.[1]

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The *Periplûs of the Erythræan Sea* is the title prefixed to a work which contains the best account of the commerce carried on from the Red Sea and the coast of Africa to the East Indies during the time that Egypt was a province of the Roman empire. The *Erythræan Sea* was an appellation given in those days to the whole expanse of ocean reaching from the coast of Africa to the utmost boundary of ancient knowledge on the East—an appellation in all appearance deduced from the entrance into it by the Straits of the Red Sea, styled *Erythra* by the Greeks, and not excluding the Gulf of Persia.

The author was a Greek merchant, who in the first century of the Christian era had, it would appear, settled at *Berenîkê*, a great seaport situated in the southern extremity of Egypt, whence he made commercial voyages which carried him to the seaports of Eastern Africa as far as *Azania*, and to those of Arabia as far as *Kanê*, whence, by taking advantage of the south-west monsoon, he crossed over to the ports lying on the western shores of India. Having made careful observations and inquiries regarding the navigation and commerce of these countries, he committed to writing, for the benefit of other merchants, the knowledge which he had thus acquired. Much cannot be

said in praise of the style in which he writes. It is marked by a rude simplicity, which shows that he was not a man of literary culture, but in fact a mere man of business, who in composing restricts himself to a narrow round of set phrases, and is indifferent alike to grace, freedom, or variety of expression. It shows further that he was a Greek settled in Egypt, and that he must have belonged to an isolated community of his countrymen, whose speech had become corrupt by much intercourse with foreigners. It presents a very striking contrast to the rhetorical diction which Agatharkhidês, a great master of all the tricks of speech, employs in his description of the Erythræan. For all shortcomings, however, in the style of the work, there is ample compensation in the fulness, variety, accuracy, and utility of the information which it conveys. Such indeed is its superiority on these points that it must be reckoned as a most precious treasure: for to it we are indebted far more than to any other work for most of our knowledge of the remote shores of Eastern Africa, and the marts of India, and the condition of ancient commerce in these parts of the world.

The name of the author is unknown. In the Heidelberg MS., which alone has preserved the little work, and contains it after the  $Peripl\hat{u}s$  of Arrian, the title given is  $Ap\dot{p}\iota\alpha\nu o\nu$   $\pi\epsilon\rho\iota\pi\lambda o\nu\varsigma$   $\tau\eta\varsigma'$   $E\rho\nu\theta\rho\alpha\varsigma$   $\theta\alpha\lambda\alpha\sigma\sigma\eta\varsigma$ . Trusting to the correctness of this title, Stuckius attributed the work to Arrian of Nikomedia, and Fabricius to another Arrian who belonged to Alexandria. No one, however, who knows how ancient books are usually treated can fail to see what the real fact here is, viz. that since not only the  $Peripl\hat{u}s$  Maris

Erythræi, but also the Anonymi Periplûs Ponti Euxini (whereof the latter part occurs in the Heidelberg MS. before Arrian's Ponti Periplûs) are attributed to Arrian, and the different Arrians are not distinguished by any indications afforded by the titles, there can be no doubt that the wellknown name of the Nikomedian writer was transferred to the books placed in juxtaposition to his proper works, by the arbitrary judgment of the librarians. In fact it very often happens that short works written by different authors are all referred to one and the same author, especially if they treat of the same subject and are published conjointly in the same volume. But in the case of the work before us, any one would have all the more readily ascribed it to Arrian who had heard by report anything of the *Paraplûs* of the Erythræan Sea described in that author's Indika. On this point there is the utmost unanimity of opinion among writers.

That the author, whatever may have been his name, lived in Egypt, is manifest. Thus he says in § 29: "Several of the trees with us in Egypt weep gum," and he joins the names of the Egyptian months with the Roman, as may be seen by referring to §§ 6, 39, 49, and 56. The place in which he was settled was probably Berenîkê, since it was from that port he embarked on his voyages to Africa and Arabia, and since he speaks of the one coast as on the right from Berenîkê, and the other on the left. The whole tenor of the work proclaims that he must have been a merchant. That the entire work is not a mere compilation from the narratives or journals of other merchants and navigators, but that the author had himself visited some of the seats of

trade which he describes, is in itself probable, and is indicated in § 20, where, contrary to the custom of the ancient writers, he speaks in his own person:—"In sailing south, therefore, we stand off from the shore and keep our course down the middle of the gulf." Compare with this what is said in § 48:  $\pi\rho\sigma$   $\tau\eta\nu$   $\epsilon\mu\pi\sigma\rho$   $\tau\eta\nu$   $\epsilon\mu\pi\sigma\rho$   $\tau\eta\nu$   $\epsilon\mu\pi\sigma\rho$   $\tau\eta\nu$   $\tau\eta\nu$   $\tau\eta\nu$   $\tau\eta\nu$   $\tau\nu$ 

As regards the age to which the writer belonged: it is first of all evident that he wrote after the times of Augustus, since in § 23 mention is made of the Roman Emperors. That he was older, however, than *Ptolemy* the Geographer, is proved by his geography, which knows nothing of India beyond the Ganges except the traditional account current from the days of Eratosthenês to those of Pliny, while it is evident that Ptolemy possessed much more accurate information regarding these parts. It confirms this view that while our author calls the island of Ceylon Palaisimoundou, Ptolemy calls it by the name subsequently given to it— Salikê. Again, from § 19, it is evident that he wrote before the kingdom of the Nubathæans was abolished by the Romans. Moreover Pliny (VI. xxvi. 101), in proceeding to describe the navigation to the marts of India by the direct route across the ocean with the wind called Hippalos, writes to this effect:—"And for a long time this was the mode of navigation, until a merchant discovered a compendious route whereby India was brought so near that to trade thither became very lucrative. For, every year a fleet is despatched, carrying on board companies of archers, since the Indian seas are much infested by pirates. Nor will a description of the whole voyage from Egypt tire the reader, since now for the first time correct information regarding it

has been made public." Compare with this the statement of the *Periplûs* in § 57, and it will be apparent that while this route to India had only just come into use in the time of Pliny, it had been for some time in use in the days of our author. Now, as *Pliny* died in 79 A.D., and had completed his work two years previously, it may be inferred that he had written the 6th book of his *Natural History* before our author wrote his work. A still more definite indication of his date is furnished in § 5, where Zoskalês is mentioned as reigning in his times over the Auxumitae. Now in a list of the early kings of Abyssinia the name of Za-Hakale occurs, who must have reigned from 77 to 89 A.D. This Za-Hakale is doubtless the Zoskalês of the Periplûs, and was the contemporary of the emperors Vespasian, Titus, and Domitian. We conclude, therefore, that the *Periplûs* was written a little after the death of Pliny, between the years A.D. 80-89.

Opinions on this point. however. have varied considerably. Salmasius thought that Pliny and our author wrote at the same time, though their accounts of the same things are often contradictory. In support of this view he adduces the statement of the Periplûs (§ 54), "Muziris, a place in India, is in the kingdom of Kêprobotres," when compared with the statement of Pliny (VI. xxvi. 104), "Cœlobothras was reigning there when I committed this to writing;" that and arques since Kêprobotres Cœlobothras are but different forms of the same name, the two authors must have been contemporary. The inference is, however, unwarrantable, since the name in question, like that of *Pandiôn*, was a common appellation of the kings who ruled over that part of India.

Dodwell, again, was of opinion that the *Periplûs* was written after the year A.D. 161, when Marcus Aurelius and Lucius Verus were joint emperors. He bases, in the first place, his defence of this view on the statement in § 26: "Not long before our own times the Emperor (Καῖσαρ) destroyed the place," viz. Eudaimón-Arabia, now Aden. This emperor he supposes must have been Trajan, who, according to Eutropius (VIII. 3), reduced Arabia to the form of a province. Eutropius, however, meant by Arabia only that small part of it which adjoins Syria. This Dodwell not only denies, but also asserts that the conquest of Trajan Peninsula—a embraced the whole of the sweeping inference, which he bases on a single passage in the Periplûs (§ 16) where the south part of Arabia is called h πρώτη Αραβία, "the First Arabia." From this expression he gathers that Trajan, after his conquest of the country, had divided it into several provinces, designated according to the order in which they were constituted. The language of the *Periplûs*, however, forbids us to suppose that there is here any reference to a Roman province. What the passage states is that Azania (in Africa) was by ancient right subject kingdom τῆς πρώτης γινομένης (λεγομένης according to Dodwell) ἀραβίας, and was ruled by the despot of *Mapharitis*.

Dodwell next defends the date he has fixed on by the passage in § 23, where it is said that *Kharibaël* sought by frequent gifts and embassies to gain the friendship of the emperors ( $\tau \tilde{\omega} \nu \alpha \dot{\upsilon} \tau o \kappa \rho \alpha \tau \acute{o} \rho \omega \nu$ ). He thinks that the time is here indicated when M. Aurelius and L. Verus were reigning conjointly, A.D. 161-181. There is no need, however, to put

this construction on the words, which may without any impropriety be taken to mean 'the emperors for the time being,' viz. Vespasian, Titus, and Domitian.

Vincent adopted the opinion of Salmasius regarding the date of the work, but thinks that the Kaîsar mentioned in § 26 was Claudius. "The Romans," he says, "from the time they first entered Arabia under Ælius Gallus, had always maintained a footing on the coast of the Red Sea. They had a garrison at *Leukê Kômê*, in Nabathaea, where they collected the customs; and it is apparent that they extended their power down the gulf and to the ports of the ocean in the reign of Claudius, as the freedman of *Annius Plocamus* was in the act of collecting the tributes there when he was carried out to sea and over to *Taprobanê*. If we add to this the discovery of Hippalus in the same reign, we find a better reason for the destruction of Aden at this time than at any other." The assertion in this extract that the garrison and custom-house at *Leukê Kômê* belonged to the Romans is not warranted by the language of the *Periplûs*, which in fact shows that they belonged to *Malikhos* the king of the Nabathæans. Again, it is a mere conjecture that the voyage which the freedman of Plocamus (who, according to Pliny, farmed the revenues of the Red Sea) was making along the coast of Arabia, when he was carried away by the monsoon to Taprobanê, was a voyage undertaken to collect the revenues due to the Roman treasury. With regard to the word Καῖσαρ, which has occasioned so much perplexity, it is most probably a corrupt reading in a text notorious for its corruptness. The proper reading may perhaps be  $E\Lambda I\Sigma AP$ . At any rate, had one of the emperors in reality destroyed Aden, it is unlikely that their historians would have failed to mention such an important fact.

Schwanbeck, although he saw the weakness of the arguments with which Salmasius and Vincent endeavoured to establish their position, nevertheless thought that our author lived in the age of Pliny and wrote a little before him, because those particulars regarding the Indian navigation which Pliny says became known in his age agree, on the whole, so well with the statement in the *Periplûs* that they must have been extracted therefrom. No doubt there are, he allows, some discrepancies; but those, he thinks, may be ascribed to the haste or negligence of the copyist. A careful examination, however, of parallel passages in Pliny and the Periplûs show this assertion to be untenable. Vincent himself speaks with caution on this point:—"There is," he says, "no absolute proof that either copied from the other. But those who are acquainted with Pliny's methods of abbreviation would much rather conclude, if one must be a copyist, that his title to this office is the clearest."

From these preliminary points we pass on to consider the contents of the work, and these may be conveniently reviewed under the three heads Geography, Navigation, Commerce. In the commentary, which is to accompany the translation, the Geography will be examined in detail. Meanwhile we shall enumerate the voyages which are distinguishable in the *Periplûs*,[2] and the articles of commerce which it specifies.

### I. VOYAGES MENTIONED IN THE PERIPLUS.

- I. A voyage from *Berenîkê*, in the south of Egypt, down the western coast of the Red Sea through the Straits, along the coast of Africa, round Cape Guardafui, and then southward along the eastern coast of Africa as far as Rhapta, a place about six degrees south of the equator.
- II. We are informed of two distinct courses confined to the Red Sea: one from Myos Hormos, in the south of Egypt, across the northern end of the sea to Leukê Kômê, on the opposite coast of Arabia, near the mouth of the Elanitic Gulf, whence it was continued to Mouza, an Arabian port lying not far westward from the Straits; the other from Berenîkê directly down the gulf to this same port
- III. There is described next to this a voyage from the mouth of the Straits along the southern coast of Arabia round the promontory now called Ras-el-Had, whence it was continued along the eastern coast of Arabia as far as Apologos (now Oboleh), an important emporium at the head of the Persian Gulf, near the mouth of the river Euphrates.
- IV. Then follows a passage from the Straits to India by three different routes: the first by adhering to the coasts of Arabia, Karmania, Gedrosia, and Indo-Skythia, which terminated at *Barugaza* (Bharoch), a great emporium on the river *Nammadios* (the Narmadâ), at a distance of thirty miles from its mouth; the second from *Kanê*, a port to the west of *Suagros*, a great projection on the south coast of Arabia, now Cape Fartaque; and the third from Cape Guardafui, on the African side—both across the ocean by the monsoon to *Mouziris* and *Nelkunda*, great commercial cities on the coast of Malabar.

- V. After this we must allow a similar voyage performed by the Indians to Arabia, or by the Arabians to India, previous to the performance of it by the Greeks, because the Greeks as late as the reign of Philomêtôr met this commerce in Sabæa.
- VI. We obtain an incidental knowledge of a voyage conducted from ports on the east coast of Africa over to India by the monsoon long before Hippalos introduced the knowledge of that wind to the Roman world. This voyage was connected, no doubt, with the commerce of Arabia, since the Arabians were the great traffickers of antiquity, and held in subjection part of the sea-board of Eastern Africa. The Indian commodities imported into Africa were rice, ghee, oil of sesamum, sugar, cotton, muslins, and sashes. These commodities, the *Periplûs* informs us, were brought sometimes in vessels destined expressly for the coast of Africa, while at others they were only part of the cargo, out of vessels which were proceeding to another port. Thus we have two methods of conducting this commerce perfectly direct; and another by touching on this coast with a final destination to Arabia. This is the reason that the Greeks found cinnamon and the produce of India on this coast, when they first ventured to pass the Straits in order to seek a cheaper market than Sabæa.

### II. ARTICLES OF COMMERCE MENTIONED IN THE PERIPLUS.

- I. Animals:—
- 1. Παρθένοι εὐειδεῖς πρὸς παλλακίαν—Handsome girls for the haram, imported into Barugaza for the king (49).[3]

- 2. Δούλικα κρείσσονα—Tall slaves, procured at Opônê, imported into Egypt (14).
- 3. Σώματα θηλυκὰ—Female slaves, procured from Arabia and India, imported into the island of Dioskoridês (31).
- 4.  $\Sigma \dot{\omega} \mu \alpha \tau \alpha$ —Slaves imported from Omana and Apologos into Barugaza (36), and from Moundou and Malaô (8, 9).
- 5.  $\mbox{$^1$}\pi\pi\sigma\iota$ —Horses imported into Kanê for the king, and into Mouza for the despot (23, 24).
- 6. Ἡμὶοναι νωτηγοὶ—Sumpter mules imported into Mouza for the despot (24).
  - II. Animal Products:—
- 1. Bούτυρον—Butter, or the Indian preparation therefrom called  $gh\hat{i}$ , a product of Ariakê (41); exported from Barugaza to the Barbarine markets beyond the Straits (14). The word, according to Pliny (xxviii. 9), is of Skythian origin, though apparently connected with Boυς, τυρος. The reading is, however, suspected by Lassen, who would substitute Boσμορον or Boσπορον, a kind of grain.
- 2. Δέρματα Σηρικὰ —Chinese hides or furs. Exported from Barbarikon, a mart on the Indus (39). Vincent suspected the reading δερματα, but groundlessly, for Pliny mentions the Sêres sending their iron along with vestments and hides (*vestibus pellibusque*), and among the presents sent to Yudhishṭhira by the Śâka, Tushâra and Kaṅka skins are enumerated.—*Mahâbh.* ii. 50, quoted by Lassen.
- 3.  $\grave{\epsilon}\lambda\acute{\epsilon}\phi\alpha\varsigma$ —Ivory. Exported from Adouli (6), Aualitês (8), Ptolemaïs (3), Mossulon (10), and the ports of Azania (16, 17). Also from Barugaza (49), Mouziris and Nelkunda (56); a species of ivory called  $B\omega\sigma\alpha\rho\eta$  is produced in Desarênê (62).

- 4. Έριον Σηρικὸν—Chinese cotton. Imported from the country of the Thînai through Baktria to Barugaza, and by the Ganges to Bengal, and thence to Dimurikê (64). By Εριον Vincent seems to understand silk in the raw state.
- 5. Kép $\alpha\tau\alpha$ —Horns. Exported from Barugaza to the marts of Omana and Apologos (36). Müller suspects this reading, thinking it strange that such an article as *horns* should be mentioned between *wooden beams* and *logs*. He thinks, therefore, that Kép $\alpha\tau\alpha$  is either used in some technical sense, or that the reading Kop $\mu$ ũv or Kop $\mu$ íωv should be substituted—adding that Kop $\mu$ oùς ἐβένου, *planks of ebony*, are at all events mentioned by Athênaios (p. 201*a*) where he is quoting Kallixenos of Rhodes.
- 6. Κοράλλιον—Coral. (Sans. *pravâla*, Hindi *mûngâ*.) Imported into Kanê (28), Barbarikon on the Indus (39), Barugaza (49), and Naoura, Tundis, Mouziris, and Nelkunda (56).
- 7. Λάκκος χρωμάτινος—Coloured lac. Exported to Adouli from Ariakê (6). The Sanskṛit word is *lâkshâ*, which is probably a later form of *râkshâ*, connected, as Lassen thinks, with *râga*, from the root *raṅj*, to dye. The vulgar form is *lâkkha*. Gum-lac is a substance produced on the leaves and branches of certain trees by an insect, both as a covering for its egg and food for its young. It yields a fine red dye.[4] Salmasius thinks that by λάκκος χρωμάτινος must be understood not lac itself, but vestments dyed therewith.
- 8. Μαργαρίτης—Pearl. (Sans. *mukta*, Hindi, *motí*.) Exported in considerable quantity and of superior quality from Mouziris and Nelkunda (56). Cf. πινικον.

- 9. Νημα Σῆρικόν—Silk thread. From the country of the Thînai: imported into Barugaza and the marts of Dimurikê (64). Exported from Barugaza (49), and also from Barbarikon on the Indus (39)." It is called μέταξα by Procopius and all the later writers, as well as by the *Digest*, and was known without either name to Pliny"—Vincent.
- Πινίκιος κόγχος—the Pearl-oyster. (Sans. *śukti*.) Fished for at the entrance to the Persian Gulf (35). Pearl πίνικον inferior to the Indian sort exported in great quantity from the marts of Apologos and Omana (36). A pearl fishery (Πινικοῦ κολύμβησις) in the neighbourhood of Kolkhoi, in the kingdom of Pandiôn, near the island of Epiodôros; the produce transported to Argalou, in the interior of the robes pearl where muslin with country, inwoven (μαργαρίτιδες σινδόνες) were fabricated (59). The reading of the MS. is σινδόνες, έβαργαρείτιδες λεγόμεναι, for which Salmasius proposed to read μαργαριτιδες. Müller suggests instead αὶ Ἀργαρίτιδες, as if the muslin bore the name of the place *Argarou* or *Argulou*, where it was made.

Pearl is also obtained in Taprobanê (61); is imported into the emporium on the Ganges called Gangê (63).

- 11. Πορφύρα—Purple. Of a common as well as of a superior quality, imported from Egypt into Mouza (24) and Kanê (28), and from the marts of Apologos and Omana into Barugaza (36).
- 12. Ἡνόκερως—Rhinoceros (Sans. *khadgaḍ*)—the horn or the teeth, and probably the skin. Exported from Adouli (16), and the marts of Azania (7). Bruce found the hunting of the rhinoceros still a trade in Abyssinia.

- 13. Χελώνη—Tortoise (Sans. *kachchhapa*) or tortoise-shell. Exported from Adouli (6) and Aualitês (7); a small quantity of the genuine and land tortoise, and a white sort with a small shell, exported from Ptolemaïs (3); small shells (Χελωνάρια) exported from Mossulon (10); a superior sort in great quantity from Opônê (13); the mountain tortoise from the island of Menouthias (15); a kind next in quality to the Indian from the marts of Azania (16, 17); the genuine, land, white, and mountain sort with shells of extraordinary size from the island of Dioskoridês (30, 31); a good quantity from the island of Serapis (33); the best kind in all the Erythræan—that of the Golden Khersonêsos (63), sent to Mouziris and Nelkunda, whence it is exported along with that of the islands off the coast of Dimurikê (probably the Laccadive islands) (56); tortoise is also procured in Taprobanê (61).
  - III.—Plants and their products:—
- 1. Aλόη—the aloe (Sans. *agaru*). Exported from Kanê (28). The sort referred to is probably the bitter cathartic, not the aromatic sort supposed by some to be the sandalwood. It grows abundantly in Sokotra, and it was no doubt exported thence to Kanê. "It is remarkable," says Vincent, "that when the author of the *Periplûs* arrives at Sokotra he says nothing of the aloe, and mentions only Indian cinnabar as a gum or resin distilling from a tree: but the confounding of cinnabar with dragon's-blood was a mistake of ancient date and a great absurdity" (II. p. 689).
- 2. ἀρώματα—aromatics (ευωδια, θυμιαματα.) Exported from Aualitês (7), Mossulon (10). Among the spices of Tabai (12) are enumerated ἀσύβη καί ἄρωμα καί μάγλα, and similarly among the commodities of Opônê κασσία καὶ

- ἄρωμα καὶ μότω; and in these passages perhaps a particular kind of aromatic (cinnamon?) may by preëminence be called ἄρωμα. The occurrence, however, in two instances of such a familiar word as ἄρωμα between two outlandish words is suspicious, and this has led Müller to conjecture that the proper reading may be ἀρηβὼ, which Salmasius, citing Galen, notes to be a kind of cassia.
- 3. Aσύβη—Asuphê, a kind of cassia. Exported from Tabai (12). "This term," says Vincent, "if not Oriental, is from the Greek ἀσύφηλος, signifying *cheap* or *ordinary*; but we do not find ἀσύφη used in this manner by other authors: it may be an Alexandrian corruption of the language, or it may be the abbreviation of a merchant in his invoice." (*Asafœtida*, Sans. *hingu* or *bâhlika*, Mar. *hing*.)
- 4. Βδελλα, (common form Βδελλιον). Bdella, Bdellium, produced on the sea-coast of Gedrosia (37); exported from Barbarikon on the Indus (39); brought from the interior of India to Barugaza (48) for foreign export (49). Bdella is the gum of the *Balsamodendron Mukul*, a tree growing in Sind, Kâṭhiâvâḍ, and the Dîsâ district.[5] It is used both as an incense and as a cordial medicine. The bdellium of Scripture is a crystal, and has nothing in common with the bdellium of the *Periplûs* but its transparency. Conf. Dioskorid. i. 80; Plin. xii. 9; Galen, *Therapeut. ad Glauc.* II. p. 106; Lassen, *Ind. Alt.* vol. I. p. 290; Vincent, vol. II. p. 690; Yule's *Marco Polo*, vol. II. p. 387. The etymology of the word is uncertain. Lassen suspects it to be Indian.
- 5. Γίζειρ—Gizeir, a kind of cassia exported from Tabai (12). This sort is noticed and described by Dioskoridês.

- 6. Δόκος—Beams of wood. Exported from Barugaza to the marts of Omana and Apologos (36). (? Blackwood.)
- 7. Δούακα—Douaka, a kind of cassia. Exported from Malaô and Moundou (8, 9). It was probably that inferior species which in Dioskorid. i. 12, is called  $\delta$ ακαρ or  $\delta$ αρκα.
- 8. Ἐβένιναι φάλαγγες—Logs of ebony (*Diospyros melanoxylon*.) Exported from Barugaza to the marts of Omana and Apologos (36).
- 9. Ελαιον—Oil (*tila*). Exported from Egypt to Adouli (6); ἔλαιον σησαμινον, oil of sêsamê, a product of Ariakê (41). Exported from Barugaza to the Barbarine markets (14), and to Moskha in Arabia (32).[6]
- 10. Ἰνδικόν μέλαν—Indigo. (Sans. *nîlî*, Guj. *gulî*.) Exported from Skythic Barbarikon (39). It appears pretty certain that the culture of the indigo plant and the preparation of the drug have been practised in India from a very remote epoch. It has been questioned, indeed, whether the Indicum mentioned by Pliny (xxxv. 6) was indigo, but, as it would seem, without any good reason. He states that it was brought from India, and that when diluted it produced an admirable mixture of blue and purple colours. *Vide* McCulloch's *Commer. Dict.* s. v. *Indigo*. Cf. Salmas, in *Exerc.* Plin. p. 181. The dye was introduced into Rome only a little before Pliny's time.
- 11. Κάγκαμον—Kankamon. Exported from Malaô and Moundou (8, 10). According to Dioskoridês i. 23, it is the exudation of a wood, like myrrh, and used for fumigation. Cf. Plin. xii. 44. According to Scaliger it was gum-lac used as a dye. It is the "dekamalli" gum of the bazars.

- 12. Κάρπασος—Karpasus (Sans. *kârpâsa'*; Heb. karpas,) *Gossypium arboreum*, fine muslin—a product of Ariakê (41). "How this word found its way into Italy, and became the Latin *carbasus*, fine linen, is surprising, when it is not found in the Greek language. The Καρπασιον λινον of Pausanias (*in Atticis*), of which the wick was formed for the lamp of Pallas, is asbestos, so called from Karpasos, a city of Crete—Salmas. Plin. *Exercit.* p. 178. Conf. Q. Curtius viii. 9: —'Carbaso Indi corpora usque ad pedes velant, corumque rex lecticâ margaritis circumpendentibus recumbit distinctis auro et purpurâ carbasis quâ indutus est.'" Vincent II. 699.
- 13. Κασσία or Κασία (Sans. *kuta*, Heb. *kiddah* and *keziah*). Exported from Tabai (12); a coarse kind exported from Malaô and Moundou (8, 9); a vast quantity exported from Mossulon and Opônê (10, 13).

"This spice," says Vincent, "is mentioned frequently in the *Periplûs*, and with various additions, intended to specify the different sorts, properties, or appearances of the commodity. It is a species of cinnamon, and manifestly the same as what we call cinnamon at this day; but different from that of the Greeks and Romans, which was not a bark, nor rolled up into pipes, like ours. Theirs was the tender shoot of the same plant, and of much higher value." "If our cinnamon," he adds, "is the ancient casia, our casia again is an inferior sort of cinnamon." Pliny (xii. 19) states that the cassia is of a larger size than the cinnamon, and has a thin rind rather than a bark, and that its value consists in being hollowed out. Dioskoridês mentions cassia as a product of Arabia, but this is a mistake, Arabian cassia having been an import from India. Herodotos (iii.) had made the same