

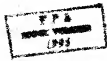


Vasco da Gama :

Engraving published May 1850 by the Rev. P. G. W. in the Town Hall, Birmingham

10-95

THE
P E R I P L U S



OF THE
E R Y T H R E A N S E A .

PART THE FIRST.

CONTAINING,
AN ACCOUNT OF
THE NAVIGATION OF THE ANCIENTS,
FROM THE SEA OF SUZ TO THE COAST OF ZANGUEBAR.
WITH DISSERTATIONS.

By WILLIAM VINCENT, D.D.

Ms. Foulkes

Γεωγραφικά quae institueram magnum opus est, et hercule res sunt difficiles ad explicandum et ἑρμηνεύειν, nec tam possunt ἀποδεδειχθῆναι quān videbatur.

Cic. ad ATTICUM, lib. ii. ep. 6.

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T O

T H E K I N G.

S I R,

W H I L E we contemplate the maritime power of Great Britain, raised under the auspices of Your Majesty to a pre-eminence unexampled in the annals of mankind; we view with equal pleasure those not less useful though less splendid efforts, which, under Your Majesty's immediate patronage and direction, have advanced the limits of discovery to that
A boundary

boundary which Nature has fixed as a barrier to the enterprize of man.

IT is due to the consummate abilities of the most experienced commanders, exercised under this patronage and direction, that a solution has been given to three of the greatest problems that concern the world which we inhabit; for it is now determined by a succession of voyages commenced and prosecuted by Your Majesty's command, that the Entrance into the Pacifick Ocean by a passage either on the North West or North East is impracticable, and that the Existence of a great Southern Continent had nothing but theory for its support. It has likewise been ascertained that the longest voyages are not detrimental to
life

life or health; and it has been proved by the execution of Your Majesty's commands, that distant nations may be visited, not for the purpose of subjugation, but for the interchange of mutual benefits, and for promoting the general intercourse of mankind.

IN the prosecution of these great designs, if we have seen science advancing to perfection, it is still an object of interesting curiosity to turn our view back from the result to the origin, to trace navigation to its source, and discovery to its commencement.

THIS is the design of the Work which I have now the honour to present to Your

Majesty for protection ; its merits must be left to future decision ; but it is at least a tribute of gratitude offered to the patron of every science, in which the interests of navigation and geography are concerned. I have the honour to subscribe myself .

YOUR MAJESTY'S

Most faithful

and most devoted

Subject and Servant,

WILLIAM VINCENT.

P R E F A C E.

MUCH disquisition upon a brief narrative is the professed design of the following work; a work which has encreased under my hands far beyond my calculation or design, and which I now publish incomplete, because, from the various interruptions of an active life, whatever may be my wish and object, I cannot pledge myself to bring it to a conclusion.

SUCH encouragement as I had reason to expect has not been wanting to my former Labours. Popular reputation I neither courted or declined; emolument I neither coveted or disclaimed; but if the approbation of many excellent and learned men be an object of ambition, I have had my reward.

To the censures which I incurred, I am not insensible; but if censure be not illiberal it is the part of prudence to turn it rather to the purpose of correction than offence. One charge only I shall notice; and

that, not because it was unjust, but because it originated in a misapprehension of my design. In the few instances where I ventured upon etymology, I did not expect the severity which I have experienced. I had disclaimed all pretensions to oriental learning; I had hazarded my own conjectures, in order to excite attention and curiosity in others; I had never rested a single deduction of importance on any imaginary interpretation of my own, and still I have had the mortification to find that all my precautions were ineffectual. I thought that in treating of oriental questions, the conjectures of a classical man, even if erroneous, might have been pardonable; but I was mistaken: I have seen my error, and I shall avoid a repetition of the offence. Nothing etymological will occur in the following pages, but what will be proposed merely as matter of inquiry, or what can be referred to oriental authority for support.

IN the Voyage of Nearchus I traced the intercourse with India to its source, a subject, as it has been called, "barren, but important:" and I now prosecute the same inquiry down to its completion, by the discoveries
of

of Gama, under difficulties still more discouraging to an Author. A work, relieved neither by the incidents of a voyage, or the occurrences of a journal, varied by no personal dangers or escapes, animated by no personal exertion or ability, however it may abound in information, can presume but little upon its powers of attraction. Fidelity, labour, and research, it is true, have their share of merit; but the approbation which they claim must be derived from those who can appreciate the value of talents which, though common to all, are exercised only by the few.

Research, indeed, affords a pleasure peculiar to itself; it presents an idea of discovery to the imagination of the inquirer; an intellectual pleasure, in which he flatters himself others will be desirous to participate; and which, if he can communicate with satisfaction proportionate to his own, publication is not merely the indulgence of a propensity, but the exercise of a social duty.

I HAVE to return my thanks a second time to Mr. Dalrymple, for his kindness in suffering me to copy two
of

of his charts; to Sir William Ouseley, for favouring me with the sheets of Ebn Haukel as they came from the press; to Dr. Charles Burney of Greenwich, and to Captain Francklin of the Bengal Establishment. I have likewise been again more particularly obliged to the Bishop of Rochester for his assistance in correcting the position of Meroë; on which subject, more probably will appear upon a future occasion.

THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A.

B O O K I.

P R E L I M I N A R Y D I S Q U I S I T I O N S.

- I. *Introduction.* — II. *Account of the Periplus.* — III. *Homer.* —
IV. *Herodotus.* — V. *Ctesias.* — VI. *Iambulus.* — VII. *Agatharbchides.*
— VIII. *Hippalus.* — IX. *Age of the Periplus.* — X. *Intercourse
with India.*

I. **N**AVIGATION, perfected as it is at the present hour, opens all the maritime regions of the world to the knowledge of mankind; but in the early ages, personal intercourse was impracticable: the communication by sea was unexplored, and travelling by land was precluded by insecurity. The native commodities of one climate passed into another by intermediate agents, who were interested in little beyond the profits of the transit; and nations in a different hemisphere were known respectively, not by their history, but their produce.

Such was the situation of Europe in regard to India; the produce of each was conveyed to the other by channels which were unknown to both; and the communication by land through Tartary or Persia, was as little understood, as the intercourse by the Indian Ocean. That both existed in some sense or other is undeniable; for the most ancient of all histories mentions commodities which are the native produce of India, and which if they were known, of necessity must have been conveyed. What the means of conveyance were by land, or on the north, is a subject which does not enter into the plan of the following work; but the transport by sea is a consideration of all others the most important; it is dependent on a discovery common to all the nations of the world: the dominion of the sea may pass from one people to another, but the communication itself is opened once for all; it can never be shut.

That the Arabians were the first navigators of the Indian Ocean, and the first carriers of Indian produce, is evident from all history, as far as history goes back; and antecedent to history, from analogy, from necessity, and from local situation; out of their hands this commerce was transferred to the Greeks of Egypt, and to the Romans when masters of that country; upon the decline of the Roman power it reverted to the Arabians, and with them it would have remained, if no Gama had arisen to effect a change in the whole commercial system of the world at large.

It is the interval between the voyage of Nearchus and the discoveries of the Portuguese which I intend to examine in the follow-

¹ Perhaps never to the Romans, but to the Greeks of Egypt under the power of the Romans.

ing work; the basis which I assume is the Periplus of the Erythræan Sea; and in commenting on this work, an opportunity will be given to introduce all the particulars connected with the general subject.

ACCOUNT OF THE PERIPLUS.

II. THE Periplus 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.

This work was first edited from the press of Froben at Basle, in 1533, with a prefatory epistle by Gelenius; but from what manuscript I have never been able to discover; neither is it known whether any manuscript of it is now in existence. The edition of Stuckius at Zurich, in 1577, and Hudson in 1698, at Oxford, are both from the printed copy, which is notoriously incorrect, and their emendations remove few of the material difficulties^a; besides these, there is a translation in the collection of Ramusio, faithful indeed, as all his translations are, but without any attempt to amend the text, or any comment to explain it; he has prefixed a discourse however of considerable merit and much learning, which I have made use of wherever it could be of service, as I have also of the commentaries of Stuckius, Hudson, and Dodwell; but the author with whom I am most in harmony upon the whole,

^a The two inexplicable difficulties are, *Ἐρυθροπαρασηθίας*, p. 9. and *ἀπὸ Ὀρίωνος ἕως ἰσθμοῦ*, p. 7. See *infra*.

is Vossius, who in his edition of Pomponius Mela has touched upon some of these points, and I wish we had the ground of his opinion in detail.

The Erythræan Sea is an appellation given in the age of the author 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 their entrance into it by the straits of the Red Sea, styled Erythra³ by the Greeks, and not excluding the gulph of Persia, to which the fabulous history of a king Erythras is more peculiarly appropriate.

Who the author was, is by no means evident, but certainly not Arrian of Nicomedia, who wrote the history of Alexander, whose writings have been the subject of my meditations for many years, and whose name I should have been happy to prefix to the present work; HE was a man of eminence by birth, rank, talents, and education, while the author before us has none of these qualities to boast; but veracity is a recommendation which will compensate for deficiency in any other respect: this praise is indisputably his due, and to display this in all its parts is the principal merit of the commentary I have undertaken.

³ We are warned against the connection of Erythra with Erythræan by Agatharchides, p. 4. Geog. Min. Hudson, *θάλατταν Ερυθράν*, he says, signifies the Red Sea; *θάλατταν Ερυθράν*, the sea of Erythras, is the ocean which takes its name from king Erythra, according to the Persian account. Salmasius and Hudson give little credit to Agatharchides for this intelligence. See note, *ibid*: both agree in supposing Edom, Red, to be the true etymology, the sea of Edom, or Esau, the Idumean Sea.

Agatharchides says, it is not from the colour of the sea, for it is not red, *τὸ μὲν ἀπὸ τοῦ χροῦ ματος τὸ κλίσει κατασκευάζει, ψηδισ** (*ὁ γὰρ ἔστι ἐρυθρὰ*); this is well known, but it ought to be remembered that Im Suph of the Hebrews is the weedy sea; and Lobo asserts, that Sufa is a name still applied to a weed in this sea used for dyeing red; this is probably indeed not the source of the etymology, but it is not unworthy of notice.

Arrian of Nicomedia has left us the Paraplûs of Nearchus, and the Periplûs of the Euxine Sea, and was a name of celebrity to the early editors of Greek manuscripts, long before the work now under contemplation was known; it is not impossible, therefore, if the Periplûs of the Erythræan Sea was found anonymous, that it was attributed to an author whose name on similar subjects was familiar. But if Arrian be the real name of the author now under contemplation, and not fictitious, he appears from internal evidence to have been a Greek, a native of Egypt, or a resident in that country, and a merchant of Alexandria: he manifestly sailed on board the fleet from Egypt, as far as the gulph of Cambay, if not farther; and, from circumstances that will appear hereafter, is prior to Arrian of Nicomedia by little less than a century. His work has long been appreciated by geographers, and is worthy of high estimation as far as the author can be supposed personally to have visited the countries he describes; some scattered lights also occur even in regard to the most distant regions of the east, which are valuable as exhibiting the first dawn of information upon the subject.

Of this work no adequate idea could be formed by a translation; but a comparison of its contents with the knowledge of India, which we have obtained since Gama burst the barrier of discovery, cannot but be acceptable to those who value geography as a science, or delight in it as a picture of the world.

The Periplûs itself is divided into two distinct parts, one comprehending the coast of Africa from Myos Hormus to Rhapta; the other, commencing from the same point, includes the coast of Arabia, both within the Red Sea and on the ocean; and then
passing

passing over to Guzerat runs down the coast of Malabar to Ceylon. It is the first part, containing the account of Africa, which I now present to the public; a work which, perhaps, I ought never to have undertaken, but which I hope to complete with the addition of the oriental part, (if blessed with a continuance of life and health,) by devoting to this purpose the few intervals which can be spared from the more important duties in which I am engaged. The whole will be comprehended in four books; the first consisting of preliminary matter, and the other three allotted respectively to Africa, Arabia, and India, the three different countries which form the subject matter of the *Periplus* itself. In the execution of this design I shall encroach but little on the ground already occupied by Doctor Robertson; but to Harris, and his learned editor Doctor Campbell, I have many obligations. I follow the same arrangement in my consideration of the Greek authors, borrowing sometimes from their materials, but never bound by their decisions: where I am indebted I shall not be sparing of my acknowledgments; and where I dissent, sufficient reasons will be assigned. I could have wished for the company of such able guides farther on my journey; but I soon diverge from their track, and must explore my way like an Arab in the desert, by a few slight marks which have escaped the ravages of time and the desolation of war.

To a nation now mistress of those Indian territories which were known to Alexander only by report, and to the Greeks of Egypt only by the intervention of a commerce restricted to the coast, it may be deemed an object of high curiosity at least, if not of utility, to trace back the origin and progress of discovery, and to
 examine

examine the minute and accidental causes which have led to all our knowledge of the east; causes, which have by slow and imperceptible degrees weakened all the great powers of Asia, which have dissolved the empires of Persia and Hindostan, and have reduced the Othmans to a secondary rank; while Europe has arisen paramount in arts and arms, and Britain is the ruling power in India, from Ceylon to the Ganges:—a supremacy this, envied undoubtedly by our enemies, and reprobated by the advocates of our enemies. Anquetil du Perron and Bernoulli*, exclaim at the injustice of our conquests; but who ever asserted that conquest was founded upon justice? The Portuguese, the Hollanders, and the French were all intruders upon the natives, to the extent of their ability, as well as the British. India in no age since the irruptions of the Tartars and Mahomedans has known any power, but the power of the sword; and great as the usurpation of the Europeans may have been, it was originally founded in necessity. It is not my wish to justify the excess; but there are nations, with whom there can be no intercourse without a pledge for the security of the merchant. The Portuguese, upon their first arrival at Calicut, could not trade but by force: it was in consequence of this necessity, that all the Europeans demanded or extorted the liberty of erecting forts for their factories; and this privilege, once granted, led the way to every encroachment which ensued. I notice this, because the same danger produced the same effects from the beginning. It will appear from the Periplus, that the Arabians in that age had fortified their factories on the coast of Africa, and the Portuguese historians

* See Description de l'Inde, in three vols. by Bernoulli, Berlin 1787, vol. II.

mention the same precaution used in the same country by the Arabs in the age of Gama. From this slender origin all the conquests of the Europeans in India have taken their rise, till they have grown into a consequence which it was impossible to foresee, and which it is now impossible to control. No nation can abandon its conquests without ruin; for it is not only positive subtraction from one scale, but preponderancy accumulated in the other. No power can be withdrawn from a single province, but that it would be occupied by a rival upon the instant. Nothing remains but to moderate an evil which cannot be removed, and to regulate the government by the interests of the governed. This imports the conquerors as much as the conquered; for it is a maxim never to be forgotten, that the Portuguese lost by their avarice the empire they had acquired by their valour; but of this too much:—our present business is not with the result of discovery, but its origin.

Voyages are now performed to the most distant regions of the world without any intervening difficulties but the ordinary hazard of the sea. In the ancient world the case was very different: a voyage from Theffaly to the Phasis was an achievement which consecrated the fame of the adventurers by a memorial in the Heavens, and the passage from the Mediterranean into the Atlantic Ocean was to the Phenicians a secret of state.

The reality of the Argonautic expedition has been questioned; but if the primordial history of every nation but one is tinctured with the fabulous, and if from among the rest a choice is necessary to be made, it must be allowed that the traditions of Greece are less inconsistent than those of the more distant regions of the earth. Oriental learning is now employed in unravelling the mythology of

India, and recommending it as containing the seeds of primeval history; but hitherto we have seen nothing that should induce us to relinquish the authorities we have been used to respect, or to make us prefer the fables of the Hindoos or Guebres to the fables of the Greeks. Whatever difficulties may occur in the return of the Argonauts, their passage to Colchis is consistent; it contains more real geography than has yet been discovered in any record of the Bramins or the Zendavesta, and is truth itself, both geographical and historical when compared with the portentous expedition of Ram^s to Ceylon; it is from considerations of this sort that we must still refer our first knowledge of India to Grecian sources, rather than to any other; for whatever the contents of the Indian records may finally be found to have preserved, the first mention of India that *we* have is from Greece, and to the historians of Greece we must still refer for the commencement of our inquiries; their knowledge of the country was indeed imperfect, even in their latest accounts, but still their very earliest shew that India had been heard of, or some country like India in the east; a glimmering towards day is discoverable in Homer, Heródotus, and Ctésias; obscure indeed, as all knowledge of this sort was, previous to Alexander, but yet sufficient to prove that India was always an object of curiosity and inquiry.

H O M E R.

III. THE father of poetry is naturally the first object of our regard, his writings contain the history, the manners, and antiquities

^s See Maurice's History of Hindoostan, vol. ii. p. 243.

of his country; and though his information upon the point proposed may be problematical, still nothing that he has touched is unworthy of attention. When he conducts Neptune^d into Ethiopia, he seems to place him in the centre between two nations both black, but both perfectly distinguished from each other; and he adds, that they lived at the opposite extremities of the world east and west; let us then place the deity in Ethiopia above the Cataracts of Syênè, and let a line be drawn east and west, at right angles with the Nile; will it not immediately appear that this line cuts the coast of Nigritia on the west, and the peninsula of India on the east? and though it may be deemed^e enthusiasm to assert, that Homer considered these as his two extremities, and placed his two Ethiopick nations in these tracts, which are their actual residence at present, still it is not too much to say, that the centre he has assumed is the most proper of all others, that the distant Ethiopians^f to the east of it, are Indians, and to the west, Negroes. These two species are perfectly distinguished by their make, by their features, and above all by their hair; whether Homer knew this characteristick difference does not admit of proof, but that he

* Οὗτι δ' ἰδέσθω δέσπας
 Νόσφι Περσίδαυροι, δ' ἄσπερχ' ἰμάντας
 Ἀντίβη' Ὀδυσσεύ, πάρος ἴσ' ἦ γαίης ἰκέσθαι.
 Ἄλλ' ἰ μὲν Ἀθῆνας μετ' ἐπιπέθε τοῦδ' ἰόντας,
 (Ἀθῆνας τοὶ δὲ γὰρ ἰδέσθαι, ἰσχυροὶ ἀδμήν,
 Οὐ μὲν δευρὸς Ἰνδίωνος, ἰ Ἰνδίωνος.) Od. A. 19.

See the note upon this passage in Pope's translation of the *Odyssey*, where he adduces with great propriety the testimony of Strabo, to prove that all those nations were accounted Ethiopians by the early Greeks, who lived upon the Southern Ocean from east to west; and the authority of Ptolemy to shew, " that

" under the zodiack from east to west, inhabit the Ethiopians black of colour." The whole passage in Strabo, and the various reading of Aristarchus and Crates, are well worth consulting. Lib. i. p. 30.

† Ἐπειδ' ἔμαρτος ἢ διὰ τὸ τοῦ δακτύλου τὰς Ἀθῆνας ἢ διὰ τὰς Ἰνδίας ἴδω τούτους τοῦδ' ἰσχυροῦ ἢ διὰ τὰς ἈΡΧΙΝ ἰδέσθαι τὰς Ἰνδίας ἰσχυροῦ. Strabo, Lib. ii. p. 103. it is not probable that Homer knew India at all, certainly not as India, but as Ethiopia.

‡ Ἐρχομεν.

knew they were of a separate race is undeniable, and that he placed them east and west at the extent of his knowledge, is an approximation to truth, and consistent with their actual position at the present hour.

HERODOTUS.

IV. THE distinction which Homer has not marked, is the first circumstance that occurred to Heródotus; he mentions the eastern Ethiopians considered as Indians, and differing from those of Africa expressly by the characteristick^o of long hair, as opposed to the woolly head of the Caffre. We may collect also, with the assistance of a little imagination, the distinct notice of three sorts of natives, which correspond in some degree with the different species which have inhabited this country in all ages. The Padéi on the north^o, who are a savage people resembling the tribes which are still found in the northern mountains, mixed with Tartars perhaps, and approaching to their manners; a second race living far to the south, not subject to the Persian empire^o, and who abstain from all animal food; under this description we plainly

^o Lib. vii. p. 541.

^o If the situation of the Padéi were ascertained we might inquire about the manners attributed to them by the historian; but he mentions only some tribes that live upon the marshes formed by the river (that is, probably the Indus), and then the Padéi to the east of these; this places them on the north of India: as to all appearance the marshes noticed are those formed by the rains in the Panjab, but how far east beyond this province we are to fix

the Padéi is indefinite. I cannot suppose that Heródotus had received any report of the nations north of the Himmala Mountains, or else I should offer a conjecture to the Orientalists, whether Padéi, converted into Pudei, might not allude to Budtan; for a and u are convertible, as is evident in Multan, which is only another form of reading Mul-tan for Mal-tan or Mallistan, the country of the Malli.

^o Lib. iii. p. 248.

discover the real Hindoos; and a third inhabiting Pactyia and Caspatyrus, who resemble the Bactrians in their manners, dress, and arms, who are subject to Persia, and pay their tribute in gold; these, whether we can discover Caspatyrus or not, are evidently the same as those tribes which inhabit at the sources west of the Indus; who never were Hindoos, but possess a wild mountainous country, where their fastnesses qualify them for a predatory life, and where they were equally formidable to Alexander, to Timour, and Nadir Shah¹²; they resemble to this day the Bactrians, as much as in the time of Herodotus, or rather the Agwhans in their neighbourhood; and are as brave as the one, and as ferocious as the other. These tribes it is more necessary to mark, because it will prove that the Persians never were masters of India properly so called, but of that country only which is at the source of the Indus. Whether they penetrated beyond the main stream, that is the Indus or the Attock itself, must be left in doubt; but Pactyia, according to major Rennell, is Peukeli; and if Caspatyrus be the same as the Caspira of Ptolemy, there is some ground for supposing that city correspondent to Multan. Should these conjectures be confirmed by future inquiry, it would prove that the Persians did pass the Attock, and were really masters of the Panjeab and Multan; and the tribute which they received, equal to half the revenues of the empire, affords some reason for supposing this to be the fact. Much depends upon the issue of this inquiry, because the Attock, or *forbidden* river, has been the western boundary of Hindostan in all ages; if the Persians passed it, India

¹² Nadir was glad to compound with these tribes, to let him pass unmolested with the plunder of the unhappy Mahomed Shah.

was tributary to them; if they did not, the tribes west of the Attock only were subjected, and they were never Hindoos, however esteemed so by the Persians. Another circumstance dependent on this inquiry, is the voyage of Scylax, said to have commenced from Paçtyia and Caspatyrus, and to have terminated in the Gulph of Arabia. There are two inconsistencies in the report of this voyage by Heródotus; the first, that he mentions the course of the Indus to the east³³, which is in reality, to the south-west: the second, that he supposes Darius³⁴ to have made use of the discoveries of Scylax for the invasion of India. Now if Darius was master of the Attock, Peukeli, and Multan, he wanted no information concerning the entrance into India, for this has been the route of every conqueror; or if he obtained any intelligence from Scylax it is certain that neither he, nor his successors ever availed themselves of it, for any naval expedition. The Persians were never a maritime people. History no where speaks of a Persian fleet in the Indian ocean, or even in the Gulph³⁵ of Persia; and in the Mediterranean, their sea forces always consisted of Phenicians, Cyprians, or Egyptians.

Far is it from my wish wantonly to discredit any historical fact supported on the testimony of such a writer as Herodotus; but there

³³ See Hyde Rel. Vet. Persarum, cap. xxiii. who is half disposed to make Scylax navigate the Ganges on account of its eastern direction. He hesitates only because Scylax must have returned to the north again from C. Comorin to survey the mouths of the Indus. See Wesseling ad Herod. lib. iv. p. 309. note 34.

³⁴ Hytaspes father of Darius is the Gushasp of the Zendavesta, and king of Balk or

Bactria; but I have never been able to discover, that the Persian Darius of the Greeks, or his father Hytaspes, can be identified with the Bactrian Gushasp of the Zendé or Oriental writers; and I see Richardson in the preface to his Persian Dictionary assigns no real antiquity to the Zende of Anquetil du Perron.

³⁵ I speak of a navy, not ships for trade.

are insuperable difficulties in admitting this voyage of Scylax, or that of the Phenicians round the continent of Africa; the greatest of all is, that no consequences accrued from either. That Heródotus received the account of both from Persians or Egyptians, is undeniable; that they were performed is a very different consideration. I do not dwell upon the fabulous¹⁵ part of his account of India; because even his fables have a foundation in fact¹⁷; but I cannot believe from the state of navigation in that age, that Scylax could perform a voyage round Arabia, from which the bravest officers of Alexander shrunk; or that men who had explored the desert coast of Gadorfia, should be less daring than an unexperienced native of Caryanda. *They* returned with amazement from the sight of Mussendon and Ras-al-had, while Scylax succeeded without a difficulty upon record. But the obstacles to such a voyage are numerous, first, whether Pactyia be Peukeli, and Caspatyrus, Multan: secondly, if Darius were master of Multan, whether he could send a ship, or a fleet, down the Indus to the sea, through tribes

¹⁵ What the fable is of the ants which turned up gold, and the manner of collecting it by the natives, I cannot determine; but it is possible, that as our knowledge of India increases, it will be traced to its source; and one thing is certain, that it is a tale existing from the time of Heródotus to the age of De Thou; it is countenanced likewise in the Letters of Busbequins, who saw one of these ants [skins] sent as a present from the king of Persia to the Porte. See Larcher, tom. iii. p. 339. Another fable, totally dissonant to the ordinary manners of the Hindoos, I shall give in the words of the historian, Μίλη, ἢ τούτων τῶν ἰσθμῶν τῶν κεντρικῶν πρὸς τὴν ἰσθμῶν τῶν κεντρικῶν

τῶν ἀποβάτων, lib. iii. 248. quod populo universo nequaquam objiciendum est, sed originem ducit ex illo spurcissimo commercio foeminarum proles deliderio laborantium, cum Hylobiis et Hesutontimoroumenis. I can, upon similar principles, account for the greatest part of the fables imputed to Megasthenes, Deimachus, Onesicritus. Lt. Wilford explains Ctésias's fable of the Martichors.

¹⁷ Not all indeed, for his voyage of Heracles to Scythia is mere mythology. I do not use this to discredit the voyage of Scylax; my object is to mark fable as fable, and to select the truths mixed with it for observation. See Herod. lib. iv. p. 283. ed. Weff.

where Alexander fought his way at every step: thirdly, whether Scylax " had any knowledge of the Indian Ocean, the coast, or the monsoon: fourthly, if the coast of Gadrófia were friendly, which is doubtful, whether he could proceed along the coast of Arabia, which must be hostile from port to port. These and a variety of other difficulties", which Nearchus experienced, from famine, from want of water, from the built of his vessels, and from the manners of the natives, must induce an incredulity in regard to the Persian account, whatever respect we may have to the fidelity of Heródotus.

C T E S I A S.

V. NEXT to Heródotus, at the distance of little more than sixty years, succeeds Ctésias. He resided a considerable time in the court of Persia, and was physician to Artaxerxès Mnemon. What opportunities he had of obtaining a knowledge of India must have been accidental, as his fables are almost proverbial, and his truths very few; his abbreviator Photius, from whose extracts only we have

¹⁸ That there was such a person as Scylax, that he was in India, and that his account of that country was extant, appears from Aristotle's *Politicks*, lib. vii. in Dr. Gillies's translation, book iv. p. 240. I learn likewise from Larcher, that the Baron de Sainte Croix defends the work which now bears the name of Scylax as genuine, in a dissertation read before the Academy of Inscriptions; but I know not whether that dissertation be published. See Larcher's *Herod.* tom. iii. p. 407. I have one objection to its authenticity, which is his mention of Dardanus, Rhétéum, and Ilium, in the Troad,

p. 35. for there is great doubt whether Rhétéum was in existence in the time of the real Scylax; and of India, he says nothing in the treatise now extant.

¹⁹ Strabo says, Posidonius disbelieved this whole history of Scylax, though he believed the voyage of Eudoxus, lib. ii. p. 100.. The fact is, there were so many of these voyages pretended, and so few performed, that the best judges did not know what to believe; Strabo believed nothing of the circumnavigation of Africa. See lib. i. p. 32.

an account of his works, seems to have passed over all that he said of Indian manners; and to have preserved only his tales of the marvellous. The editor²⁰, however, is very desirous of preserving the credit of his author, and that part of the work which relates to Persia is worthy of the estimation he assigns it; but we are not bound to admit his fable of the martichora, his pygmies, his men with the heads of dogs and feet reversed, his griffins and his four-footed birds as big as wolves.—These fictions of imagination indeed are still represented on the walls of the Pagodas; they are symbols of mythology, which the Bramins pointed out to the early visitors of India, and became history by transmission.

The few particulars appropriate to India, and consistent with truth, obtained by Ctésias²¹, are almost confined to something resembling a description of the cochineal plant, the fly, and the beautiful tint obtained from it, with a genuine picture of the

²⁰ Ctésias says, there is a pool which is annually filled with liquid gold; that an hundred measures (*περυσία*) of this are collected, each measure weighing a talent; and at the bottom of this pool is found iron, and of this iron he had two swords, one presented to him by the king, and the other by Parysatis the king's mother. The property of these swords was, that when fixed in the ground they averted clouds, hail, and tempests; he saw the king make the experiment, and it succeeded.

Now whatever a traveller says he saw with his own eyes, (unless there are other reasons for doubting his veracity,) is deserving of credit, but when he sees things that imply an impossibility, all faith is at an end.—That there was some superstitious practice in Persia of fixing swords in the ground for this pur-

pose, may be believed, but that these swords must be wrought of metal from the golden fountain, or that they had this effect, is a different consideration; the words are, *ἡ ἰσὴ ἀνὰ τὰ ἄνω φέρει, βασιλεὺς δὲ πύργουτος*—Why does Wesseling tell me to believe this? nay I would have believed it, if he had not asserted the success of the experiment, but only that the king tried it. Perhaps some ingenious modern may hereafter quote *περὶ τῆς ἀσπίδος*, to prove that iron was known to be a conductor in that age, and that electricity was concerned in this experiment. See p. 827. Wesseling's ed. of Herod. and Ctésias.

²¹ Some other circumstances recorded by Ctésias may be collected from Diodorus, but I have confined myself to his own work.

monkey and the parrot; the two animals he had doubtless seen in Persia, and flowered cottons emblazoned with the glowing colours of the modern chintz, were probably as much coveted by the fair Persians in the Harams of Susa and Ecbatana, as they still are by the ladies of our own country.

Ctæfias is contemporary with Xenophon, and Xenophon is prior to Alexander by about seventy years; during all which period, little intelligence concerning India was brought into Greece; and if the Macedonian conquests had not penetrated beyond the Indus, it does not appear what other means might have occurred of dispelling the cloud of obscurity in which the eastern world was enveloped.

The Macedonians, as it has been shewn in a former work, obtained a knowledge both of the Indus and the Ganges; they heard that the seat of empire was, where it always has been, on the Ganges, or the Jumna. They acquired intelligence of all the grand and leading features of Indian manners, policy, and religion: they discovered all this by penetrating through countries where possibly no Greek had previously set his foot; and they explored the passage by sea, which first opened the commercial intercourse with India to the Greeks and Romans, through the medium of Egypt and the Red Sea; and finally to the Europeans by the Cape of Good Hope.

It matters not that the title of fabulists is conferred upon Megasthenes, Nearchus, and Onesicritus, by the ancients; they published more truths than falsehoods, and many of their imputed falsehoods are daily becoming truths, as our knowledge of the country is improved. The progress of information from this origin is materi-

ally connected with the object we have proposed, and it cannot be deemed superfluous to pursue it through the chain of authors, who maintain the connection till the discovery of the passage across the ocean by means of the monsoon.

Megasthenes and Daimachus²¹ had been sent as ambassadors from the kings of Syria to Sandrocottus and his successor Allitróchades; the capital of India was in that age at Palibóthra, the situation of which, so long disputed, is finally fixed, by Sir William Jones, at the junction of the Saone and the Ganges. These ambassadors, therefore, were resident at a court in the very heart of India, and it is to Megasthenes in particular that the Greeks are indebted for the best account of that country. But what is most peculiarly remarkable is, that the fables of Ctésias were still retained in his work; the Cynocéphali, the Pigmies, and similar fables were still asserted as truths. It is for this reason that Strabo²² prefers the testimony of Eratosthenes and Patrócles, though Eratosthenes was resident at Alexandria, and never visited India at all; and though Patrócles never saw any part of that country beyond the Panjeab, still their intelligence he thinks is preferable, because Eratosthenes had the command of all the information treasured in the library of Alexandria; and Patrócles was possessed of the materials which were collected by Alexander himself, and which had been communicated to him by Xeno the keeper of the archives.

It is inconceivable how men could live and negotiate in a camp on the Ganges, and bring home impossibilities as truth; how

²¹ Bruce says, Megasthenes and Denis, which misled him; he is not in the habit of citing his authorities.
²² Lib. ii. in initió, p. 70.

Megasthenes could report that the Hindoos had no use of letters²⁴, when Nearchus had previously noticed the beautiful appearance of their writing, and the elegance of character, which we still discover in the Shanskreet²⁵; but the fabulous accounts of Ctésias were repeated by Megasthenes, professedly from the authority of the Bramins; and whatever reason we have to complain of his judgment or discretion, we ought to acknowledge our obligations to him as the first author who spoke with precision of Indian manners, or gave a true idea of the people.

It is not possible to enter into the particulars of all that we derive from this author, but the whole account of India, collected in the fifteenth book of Strabo, and the introduction to the eighth book of Arrian, may justly be attributed to him as the principal source of information. His picture is, in fact, a faithful representation of the Indian character and Indian manners; and modern observation contributes to establish the extent of his intelligence, and the fidelity of his report.

This source of intelligence, commencing with Alexander and concluding with Megasthenes and Daimachus, may be classed under the title of Macedonian, as derived from Alexander and his successors, and such knowledge of the country as could be acquired by a hasty invasion, by the inspection of travellers and ambassadors, or by the voyage down the Indus, the Macedonians seem to have

²⁴ Strabo, lib. xv. p. 709. an imputation on Megasthenes, which the good father Paolino is very unwilling should attach to him. See his Dissertation De veteribus Indis, in answer to Augustinus Georgius, author of the Thibet Alphabet, p. 12.

²⁵ Shanskreet, or Sanscrit, is the mode of writing this word, which has prevailed among our English writers. I always prefer the most popular, but Paolino writes Sams Crda, lingua perfecta, p. 258. or Krda = perfecta, Sam = simul, coeval with creation.

attained with singular attention, and, notwithstanding particular errors, to have conveyed into Europe with much greater accuracy than might have been expected.

The voyage of Nearchus opened the passage into India by sea, and obviated the difficulties of penetrating into the east by land, which had previously been an insurmountable barrier to knowledge and communication. But it is to Onesicritus²⁶ we trace the first mention of Tapróbana, or Ceylon, and what is extraordinary, the dimensions he has assigned to it, are more conformable to truth²⁷, than Ptolemy had acquired four hundred years later, and at a time when it was visited annually by the fleets from Egypt; but on this subject more will be said in its proper place.

I A M B Ú L U S.

VI. The mention of Ceylon naturally introduces us to the voyage of Iambúlus²⁸, because, fabulous as his account is, it is still most

²⁶ To Onesicritus only, if we follow Strabo or Pliny, vi. 24. who, he says, mentions elephants there larger and more fit for war than elsewhere, a truth to this day. Megasthenes notices a river, gold and pearls, and that the people are called Paléógoni. Eratosthenes seems to have enlarged upon the size given it by Onesicritus, for instead of 625 miles, he says it is 875 miles long, 625 broad. In Pliny's age the north eastern side was grown to 1250 miles, and the error was always on the increase till the time of Ptolemy. Pliny adds, that Rachia [Rajah] was the head of the embassy to Rome, and that Rachia's father had visited the Seres. One incidental circumstance seems to mark Arabian intercourse previous to the voyage of Annus Plocamus's freed man. Regi, cultum Liberi Pa-

tris, cæteris, *Arabum*, the king worshipped Bacchus, the people on the coast followed the rites of the *Arabians*. The king wore the garment of India, the people (on the coast) that of the *Arabians*. He adds also, that Hercules was worshipped, that is, Bali, the Indian Hercules. Whence both Paléógoni, and Palémoondus. This, however, ought not to be asserted without giving due weight to Ptolino, who derives Palémoondus from Parafuri mandala, the kingdom of Parafuri, and Parafuri is the Indian Bacchus.

²⁷ He makes it 625 miles, without mentioning length or breadth; it is in reality near 280 miles long, and 138 broad; but Ptolemy extends it to more than 966 miles from north to south, 759 from west to east.

²⁸ See Harris, vol. i. 383. and Ramusio.

probably

probably founded on fact, and because Diodorus has ranked it as history.

Lucian²⁹, perhaps, formed a better judgment when he classed him with the writers of fiction; for his account of the Fortunate Islands and of Ceylon stand almost on the same ground; the circumference of the Island he seems to give at five thousand stadia from Onesicritus, and the navigation across the ocean from Ethiopia he derived from the general knowledge that this voyage had been performed, or imputed, from a very early age; his departure from Ceylon to the Ganges, his arrival at Palibóthra, and his intercourse with the king, who was an admirer³⁰ of the Greeks, may be referred to Megasthenes and Daimachus, while his fictions of impossibilities are all his own. Notwithstanding all this there are some allusions to characteristick truths, which though they do not bespeak the testimony of an eye-witness, prove that some knowledge of the island had reached Egypt, and this at a time previous to the discovery of the monsoon; for Iambulus must be antecedent to Diodorus, and Diodorus is contemporary with Augustus. It is this

²⁹ Luc. de vera historia, l. cap. 5. γράμμασιν μὲν ἅπασιν τὸ Φιλόδοξος περιελάμβανεν ἐκ ἀληθείας ὅτι ὄνομασεν τοὺς ἐσθλοτάτους, Wesseling in lib. ii. 167. Diod.

³⁰ Φιλόδοξος, though there be nothing in this word to raise admiration in general, but at the strangeness of the circumstance, how a king of Palibóthra should know enough of Greeks to be fond of the nation: there is still a secret allusion of much curiosity, which is this, the native chiefs who raised themselves to independence on the ruins of Syrian monarchy, (whether from the number of Greeks in the east, or from the popularity of the Grecian

sovereignty, is hard to determine,) assumed the title of Φιλόδοξος, and this term is still found inscribed in Greek letters upon the coins of the first usurpers of the Parthian dynasty. See Bayer. p. 105; It seems, therefore, highly probable, that the inventor of this tale of Iambulus knew that some of the eastern potentates were styled lovers of the Greeks; and he has ignorantly applied this title to a sovereign of India, which appertained properly to those only who reigned in the north of Persia. This seems an additional proof of the impossibility the author knew a curious piece of secret history, but did not know how to apply it.

single circumstance that makes it requisite to notice such an author. The truths alluded to are, I. The stature of the natives, and the flexibility of their joints. II. The length of their ears, bored and pendent. III. The perpetual verdure of the trees. IV. The attachment of the natives to astronomy. V. Their worship of the elements, and particularly the sun and moon. VI. Their cotton garments. VII. The custom of many men having one wife in common, and the children being entitled to the protection of the partnership. (This practice is said by Paolino²⁴ to exist still on the coast of Ceylon, and is apparently conformable to the manners of the Nayres on the continent.) VIII. Equality of day and night. IX. The Calamus or Maiz. And it is submitted to future inquiry, whether the particulars of the alphabet may not have some allusion to truth; for he says, the characters are originally only seven, but by four varying forms or combinations they become twenty-eight.

The chief reason to induce a belief, that Iambúlus never really visited Ceylon, is, that he should assert he was there seven years, and yet that he should not mention the production of cinnamon. There is no one circumstance that a Greek would have noticed with more ostentation than a discovery of the coast where this spice grew; but Iambúlus, like the rest of his countrymen, if he knew the produce, adjudged it to Arabia, and never thought of this leading truth, as a sanction to the construction of his fable; he is described by Diodórus as the son of a merchant, and a merchant himself, but possessed of a liberal education. In trading to Arabia

²⁴ Paolino was a Romish missionary in Travencore, for thirteen or fourteen years; his work was published at Rome: he is sometimes mistaken on classical questions, but still it is a learned and instructive work, p. 378.

for spices, he was taken prisoner and reduced to slavery; he was carried off from Arabia by the Ethiopians, and by them committed to the ocean, to be driven wherever the winds might carry him; and in this case his reaching Ceylon would be the least improbable²² part of his narrative. No means occur to settle the date of this history, but the allusion to known truths makes it curious, even if it be a novel. These truths could have been obtained only from report in the age of Diodorus²³, and the wonder is, that it contains a circumstance dependent on the monsoon, of which Diodorus was himself ignorant, and which was not known to the Greeks and Romans till near a century later. I dare not claim it as a *proof*, that the Arabians sailed by the monsoon at this time, but the scene is laid in Arabia, and the passage is made from the coast of Africa, as that of the Arabians really was; and it is natural to conclude, that the Arabians did really sail to Ceylon in that age, though the Greeks and Romans did not. The embassy from Pandion to Augustus cannot be a fiction, and the ambassadors must have sailed from India, either on board Arabian ships, which frequented their harbours, or in Indian vessels which followed the same course. All this is previous to Hippalus, and the whole taken together is a

²² P. Luigi Maria de Gesu, a Carmelite, afterwards Bp. of Usula, and Apostolick Vicar of the coast of Malabar, coming round Cape Comorin in a native vessel, was carried over to the Maldives, and thence to the coast of Africa. Paolin. p. 83. Annus Plocamus was carried in a contrary direction from Arabia to Ceylon; and in fact, whenever a vessel, on either coast, is by accident forced out of the limit of the land and sea breeze,

she will be caught by the monsoon, and carried over to the opposite continent. To accidents of this sort we may impute a very early discovery of the monsoons by Arabians or Ethiopians, long before Hippalus imparted it to the Greeks and Romans.

²³ Harris or Dr. Campbell are my precursors in this examination of Iambulus or Agatharchides. They gave credit to Iambulus. I here give the reasons for my dissent.

confirmation

confirmation of an Arabian navigation previous to that from Egypt. That a novel should contain historical facts and truths is natural, and will not be denied by those who are acquainted with Heliodorus. Many Ethiopick customs³⁴ are noticed in that work, which are true to this day. After all, the novel of Iambulus is not so surprizing in itself, as its existence in the page of Diodorus.

AGATHARCHIDES.

VII. AGATHARCHIDES³⁵, the next object of our consideration, is an author of far different estimation; he was president of the Alexandrian library, and is always mentioned with respect by Strabo, Pliny, and Diodorus³⁶. His work on the Erythrean or Red Sea, is preserved in an extract of Photius, and copied almost in the same terms, but not without intermixture³⁷, by Diodorus. Diodorus indeed professes to derive his information from the royal commentaries, and original visitors of the countries he describes; but that he copies Agatharchides is evident, by a comparison of this part of his work with the extract of Photius; or, perhaps, con-

³⁴ The Nagareet drums, so often noticed by Bruce, are discoverable in this work.

³⁵ It is with much regret that I confess my neglect of this author, from whom I might have corroborated many circumstances in the voyage of Nearchus. A cursory perusal had induced me to view his errors in too strong a light; if justice be done to him on the present review, it is no more than he merits.

³⁶ Diodorus speaks of Agatharchides and Artemidorus, as the only authors who have written truth concerning Egypt and Ethiopia, Lib. iii. 181.

³⁷ In confirmation of this assertion, we may mention a passage, lib. iii. p. 208. Diod. where an allusion is evidently made to the separation of the waters of the Red Sea, as recorded by Moses; it is received in this sense by Grotius, Bochart, and Wesseling; and if this was in Agatharchides, it could hardly have been omitted by Photius, a christian bishop: if it was not in Agatharchides, it is plain that Diodorus joined other authorities to his. This is given as a conjecture, but it is of weight.

sidering Agatharchides as librarian, he conceived that his work was founded on the commentaries or archives of the Alexandrian depository. Strabo³⁸ likewise follows Agatharchides in almost all that relates to Ethiopia, the countries south of Egypt, and the western coast of Arabia³⁹, or rather, as Wesseling has observed, with his usual accuracy, both copy Artemidorus⁴⁰ of Ephesus⁴¹, who is the copyist of Agatharchides.

It is necessary to pay more attention to this author, as he is apparently the original source from whence all the historians drew, previous to the discovery of the monsoon; his work forms an epoch in the science, and when Pliny comes to speak of the discoveries on the coast of Malabar in his own age, and adds, that the names he mentions are new, and not to be found in previous writers; we ought to consider him as speaking of all those, who had followed the authority of the Macedonians, or the school of Alexandria, of which, in this branch of science, Eratosthenes and Agatharchides were the leaders.

Eratosthenes was librarian of Alexandria under Ptolemy Euergetes I. and died at the age of eighty-one, 194, A. C. He was rather an astronomer and mathematician than a geographer, and is honoured with the title of surveyor of the earth⁴², as the first astronomer who measured a degree of a great circle⁴³, and drew the first parallel of latitude, the sublime attempt on which all the accuracy of the science depends.

³⁸ Lib. xvi. p. 769.

³⁹ Diod. lib. iii. p. 205. not. *καθ' ἑμὴν*, &c. but Strabo cites both, p. 769.

⁴⁰ Id. 774.

⁴¹ There are two Artemidorus's of Ephesus. See Hoffman in voce. This Artemidorus

lived in the reign of Ptolemy Lathyrus, anno 169, A. C.

⁴² See his eulogium in Pliny, lib. ii. c. 112.

⁴³ Hipparchus is later than Eratosthenes; he is supposed to have lived to 129, A. C.

It appears from Strabo and Pliny, that Eratosthenes speaks of Meroe, India, and the Thinae, and of the latter as placed incorrectly in the more ancient maps; how this nation, which was the boundary of knowledge in the age of Ptolemy, (and which, if it does not intimate China, is at least as distant as the golden Chersonese of Malacca,) found its way into charts more early than Eratosthenes, will be considered in its proper place; but his knowledge of Meroe or Abyssinia is derived from Dalion, Aristocreon, and Bion, who had been sent by Philadelphus, or his successors, into that country, or from Timosthenes⁴⁴, who sailed down the coast of Africa as low as Cernè⁴⁵. This information concerning India must be deduced from the Macedonians, but his information is confined on the subject of Oriental commerce; the spherical figure of the earth seems to be the grand truth he was desirous to establish, and his geographical inquiries were perhaps rather the basis of a system, than a delineation of the habitable world.

Agatharchides, according to Blair, must, though younger, have been contemporary with Eratosthenes; he was a native of Cnidus in Caria, and flourished 177, A. C. But Dodwell⁴⁶ brings him down much lower, to 104, A. C. which can hardly be true, if Artemidorus⁴⁷ copied his work, for the date of Artemidorus is attributed to 104, A. C. also, the same year which Dodwell gives to Agatharchides.

⁴⁴ What credit Timosthenes deserves is dubious, as Pliny mentions, that he makes the Red Sea only four days sail in length and two broad, if I understand the passage. Lib. vi. c. 33.

⁴⁵ Sometimes supposed to be Madagascar.

See infra.

⁴⁶ Bruce says, in the reign of Ptolemy IX. 100, A. C. but does not say a word of the contents of his work, i. 467.

⁴⁷ See Diod. iii. 181, Wessal. note.

These dates are of importance, if we assume the work of Agatharchides as an epoch, which in fact it seems to be, and the principal authority for the subsequent historians, previous to the discovery of Hippalus; his work it is by no means necessary to vindicate in all its parts, but it contains many peculiar truths⁴⁸ confirmed by modern experience, and the first genuine characteristics of Abyssinia that occur in history.

Some of these circumstances, though not connected with the purpose before us, cannot be superfluous, as they contribute to establish the credit of the work; these are, I. The gold mines worked by the Ptolemies on the coast of the Red Sea; the process; the sufferings of the miners; the tools⁴⁹ of copper found in them, supposed to have been used by the native Egyptians, prior to the Persian conquest. II. In Meroe, or Abyssinia, the hunting of elephants, and hamstringing them; the flesh cut out of the animal alive⁵⁰. III. The fly, described as the scourge of the country in

⁴⁸ Great moderation is due in judging all writers who speak of a country in the first instance. Things are not false because they are strange, and an example occurs in this author, which ought to set rash judgment on its guard. Agatharchides mentions the worm which is engendered in the legs, and is wound out by degrees. Plutarch ridicules the assertion, and says, it never has happened and never will. In our days every mariner in the Red Sea can vouch the truth of the fact; and if Plutarch had lived to be acquainted with our illustrious Bruce, he would have shewn him that he carried with him the marks and effects of this attack to the grave. See Testimonies. Agathar. De Rub. Mari. Hudson, p. 1. See also Diodorus, lib. iii. p. 199.

Πολλά δὲ καὶ ἄλλα τούτων παραδοξότερα συνιλιῖται, ταῖς μὲν ἀγνῶσιν ὄντα, ταῖς δὲ πάλαι ἰδιόφρον, ἀνυπολόγητα.

⁴⁹ A very extraordinary fact, and similar to what has happened in our own age. According to Col. Vallancy, instruments have been found in the mines in Ireland which he supposes to be Phenician; and others have been found in the mines in Wales, which are certainly Roman.

⁵⁰ Strabo also mentions the *Κεράραροι*, which perhaps intimates eaters of raw flesh, and the exciso foeminarum, in a passage where he seems to be copying Agatharchides or Artemidorus. The original here does not specify the flesh from living oxen, but elephants. See Strabo, lib. xvi. p. 771.

the same manner as by Bruce. IV. Something like the ensete tree of Bruce. V. Locusts described as food. VI. Troglodytes. VII. The rhinoceros, the camelopard, apes⁵¹ strangely called sphinxes⁵², the crocotta⁵³ or hyena; several other minute particulars might be enumerated, but not without a tincture of the fabulous.

His account of the coast is our more immediate concern; this commences at Arsinoë, or Suez, and goes down the western coast of the Red Sea to Ptolemâis Thêrôn⁵⁴, it mentions Myos Hormus, but takes no notice of Bereniccê. The particulars of this navigation are very scanty, but still one fact is substantiated, that the ordinary course of trade carried on, went no lower than Ptolemâis, and was confined more especially to the importation of elephants.

Ptolemâis is the Ras Ahehaz of d'Anville, the Ras Ageeg of Bruce, in latitude 18°. 10'.⁵⁵ and full three hundred and fifty miles short of the straits of Bab-el-Mandeb. A proof that whatever Ptolemy Philadelphus had discovered of the coast of Africa, it was now little visited by the fleets from Egypt, but that there was some sort of commerce is certain; Strabo cites Eratosthenes⁵⁶ to prove that the passage of the straits was open, and Artemidorus, to shew the extension of this commerce to the Southern Horn; of this there will be

⁵¹ The sphinxes are supposed to be apes by Wesseling, and from their tameness it is probable. The crocotta I translate hyena, because it is said to be between a wolf and a dog; from the mention of its imitating the human voice, it may be the shackall. I cannot help noticing that the animals enumerated by the author are all named in the same manner on the celebrated Palestrine Mosaick. Hardouin thinks that the distinction of these sphinxes from the common ape, was in the face, smooth

and without hair. Ad Plin. lib. vi. See the Krokotas on the Palestrine marble, which I am not naturalist sufficient to appropriate.

⁵² So called from *Θεγα*, because the elephants were here hunted and taken; they are so still according to Bruce, and below this cape, de la Rochette places the commencement of a vast forest, seen by all vessels which keep this coast.

⁵³ 18°. 7'. de la Rochette.

⁵⁴ Lib. xvi. p. 769.

frequent occasion to speak hereafter, neither ought it to be omitted, that perhaps Agatharchides knew the inclination of the African coast beyond the straits, for he notices its curvature⁵⁵ to the east, [which terminates at Gardefan,] and which is apparently the boundary of his knowledge in this quarter; but our immediate business is with the coast between Myos Hormus and Ptolemæis, and here the first place mentioned is the Sinus Impurus⁵⁶, which admits of identification with the Foul Bay of our modern charts, from the circumstances mentioned by Strabo, who says, it is full of shoals and breakers, and exposed to violent winds, and that Berenicè lies in the interior of the bay⁵⁷.

Below this, Agatharchides, or his abbreviator, afford little information, for we are carried almost at once to two mountains, called the Bulls and Ptolemæis Thêrôn, without any intervening circumstance but the danger of shoals, to which the elephant ships from Ptolemæis are exposed: of these shoals there are many about Suakem in de la Rochette, though Bruce denies the existence of a single one on the whole western coast of the Red Sea. The geographer, however, is more to be depended on than the traveller, as is proved by the misfortunes to which some of our English vessels have been exposed, which verify the assertions of Eratosthenes, Artemidorus, and Agatharchides.

At Ptolemæis the account closes, as if there were no regular commerce below that point; but its existence has been evinced by what is here said, and will be farther confirmed from the Adulitick:

⁵⁵ I am not certain whether this relates to the coast within the gulph or without, but he mentions the islands at the straits and the

prodigies beyond them.

⁵⁶ Κίνσος ἀκαθάρτος

⁵⁷ Ἐν βύθῳ τοῦ κόλπου Strabo, p. 770.

marble in its proper place; but the total silence of Agatharchides, in regard to Berenice, unless it be an omission of his abbreviator, is still more unaccountable; it appears, indeed, as if the caravan road from Coptus to this place, was a much greater object of attention under the Roman government than under the Ptolemies. The accounts extant are all Roman; from Pliny, from the Itinerary, and from the Peutingerian tables; but the Greek authorities may have perished, and Strabo mentions two different states of these roads; one from Coptus to Berenice as it was first opened by Philadelphus, and another from Coptus to Myos Hormus, after it was furnished with wells and reservoirs, and protected by a guard. Are we then to think that this, after being opened, was neglected again, when Agatharchides wrote? or are we to suppose that Berenice is comprehended in the mention of Myos Hormus⁵⁸? for Berenice is no harbour⁵⁹, but an open bay, and the ships which lade there, lie at Myos Hormus till their cargo is ready. However this may be, the account of Agatharchides returns again from Ptolemais to Myos Hormus, and then, after passing the gulph of Arsinoë, or Suez, crosses over to Phenicon⁶⁰ in the Elanitic Gulph, and runs down the coast of Arabia to Sabæa. In this course of great obscurity, there is no occasion at present to pursue the tract throughout, as it will be resumed in the third book, when the account of the Periplus is to be examined, and such light as is to

⁵⁸ It should rather seem from this that the road from Coptus to Myos Hormus (which was the nearest) was more frequented than that to Berenice, and that the latter was never materially in use, till the time of the Romans.

⁵⁹ Strabo, lib. xvii. p. 815. Βερενικὴ ἀλίμω-

ναι μὴ, τὴ δὲ ἰσχυρίε τὴ Ἰσθμῷ καταγωγὰς ἐπιπλοῦς ἔχουσα* and infra ἡ ἀκρωτιὸν δὲ τῆς Βερενικῆς ἐστὶ Μυὸς Ὁρμῶν ὅμοιος πόλιος ἔχουσα ἀναβαθμῶν τὰς πλοῖος* μίμω*

⁶⁰ De la Rochette places Phenicon at Tor, but this will be considered hereafter.

be collected from other geographers will be adduced, in order to elucidate the narrative, which is the first genuine account of Arabia that is extant. Neither is it unworthy of notice, that the *Periplus* itself is constructed upon the plan of Agatharchides; it goes down the western coast of the gulph in the same manner, then returns back to Myos Hormus, and crosses over to the eastern side, and pursues that line to its conclusion; the difference between the two consists in the difference of knowledge in the respective ages. Agatharchides describes the trade as it stood in the age of Philométror. The *Periplus* carries it to the extent it had obtained under the protection of the Roman emperors; but both set out from the same point for both voyages and it is only the extension of the line which constitutes the distinction.

But it is our immediate business to proceed to the country of the Sabéans, called Arabia the Happy, from its wealth, its commerce, and its produce, either native or imputed. This province answers generally to the modern Yemen, and the Sabéans of our author's age possessed the key to the Indian commerce, and stood as the intermediate agents between Egypt and the East. This is a most valuable fact, which we obtain from this work, and clouded as it may be with much that is dark and marvellous, the truth appears upon the whole incontestably. Certain it is that the wealth assigned to this nation is a proof of the existence of a commerce, which has enriched all who have stood in this situation, and equally certain is it that the information of the author ceases at the succeeding step.

Sabèa, says Agatharchides, abounds with every production to make life happy in the extreme, its very air is so perfumed with odours, that the natives are obliged to mitigate the fragrance by

scents that have an opposite tendency, as if nature could not support even pleasure in the extreme. Myrrh, frankincense, balsam, cinnamon, and casia are here produced from trees of extraordinary magnitude. The king, as he is on the one hand entitled to supreme honour, on the other is obliged to submit to confinement in his palace, but the people are robust⁶¹, warlike, and able mariners, they sail in very large vessels to the country where the odoriferous commodities are produced, they plant colonies there, and import from thence the larimna⁶², an odour no where else to be found; in fact there is no nation upon earth so wealthy as the Gerrhêi and Sabêi, as being in the centre of all the commerce which passes⁶³ between Asia and Europe. These are the nations which have enriched the Syria⁶⁴ of Ptolemy; these are the nations that furnish the most profitable agencies to the industry of the Phenicians, and a variety of advantages which are incalculable. They possess themselves every profusion of luxury, in articles of plate and sculpture, in furniture of beds, tripods, and other household embellishments, far superior in degree to any thing that is seen in Europe. Their expence of

⁶¹ So Bruce, vol. i. p. 408. quotes Isaiah, xlv. 14. *The merchandize of Ethiopia and of the Sabean, men of stature*, as curious, for according with this passage, in our author, as with the testimony of their mercantile pre-eminence, מְנַבְבִּים Sebaim. The term for Ethiopia, in this passage, is Cush, which means some tribe of Arabia, and not the Ethiopians of Africa.

⁶² Strabo makes Larimnus an odour, *ισμύρατος θυψάρα*. xvi. 778.

⁶³ The fragment of Agatharchides preserves a most valuable record in Photius which is lost in Diodorus and Strabo. Strabo ends with

the riches of Sabêa, and does not go to the White Sea, and the particulars of the fun mentioned by Diodorus and Photius. In the former part Diodorus is more expansive and intelligible than Photius.

⁶⁴ See Harris, i. 419. Josephus, lib. viii. c. 2. where mention is made by Harris of Ptolemy's building Philadelphia on the site of Rahab of the Ammonites, which might have some relation to Syria. But I cannot help supposing that Συρία is here a false reading. It ought to be *the kingdom of Ptolemy*, and not *the Syria of Ptolemy*.

living rivals the magnificence of princes⁶⁵. Their houses are decorated with pillars glistening with gold and silver. Their doors are crowned with vases and beset with jewels; the interior of their houses corresponds in the beauty of their outward appearance, and all the riches of other countries are here exhibited in a variety of profusion⁶⁶. Such a nation, and so abounding in superfluity, owes its independence to its distance from Europe; for their luxurious manners would soon render them a prey to the European sovereigns, who have always troops on foot prepared for any conquest, and who, if they could find the means of invasion, would soon reduce the Sabæans to the condition of their agents and factors, whereas they are now obliged to deal with them as principals.

From this narrative, reported almost in the words of the author, a variety of considerations arise, all worthy of attention. It is, as far as I can discover, the first contemporary account of the commerce opened between Egypt and India, by the medium of Arabia; it proves that in the reign of Ptolemy Philométor, in the year 177, A. C. and 146 years after the death of Alexander, the Greek sovereigns in Egypt had not yet traded directly to India, but imported the commodities of India from Saba the capital of Yemen; that the port of Berenice was not used for this commerce, but that

⁶⁵ Strabo from Eratosthenes and Artemidorus, confirms all this splendour, and almost repeats the words of Agatharchides, lib. xvi. p. 778.

⁶⁶ Harris, or Dr. Campbell, after talking magnificently of the commerce of the Ptolemies with India, at last confesses, vol. i. p. 432. that the discovery of Hippalus is the first certain date of a visit to that country. It is

manifest from the whole of this account before us, that the Sabæans did go to India, and that the subjects of Ptolemy did not. It is this monopoly that made the riches of Arabia proverbial.—*Icci beatis nunc Arabum invides gazis*. Hor. Ode 29. lib. i. where my excellent friend and patron the archbishop of York, reads, *beatus nunc*, which gives a beautiful turn to the whole Ode.

Myos Hormus, or Arsinoè, was still the emporium. It proves that there was no trade down the coast of Africa (an intercourse afterwards of great importance) except for elephants, and *that* no lower than Ptolemâis Thêrôn. It shews that the voyage down the Arabian coast of the Red Sea was still very obscure, and above all it demonstrates incontestably by the wealth constantly attendant on all who have monopolised the Indian commerce, that the monopoly in the author's age was in Sabêa. The Sabêans of Yemen appear connected with the Gerrhêans on the Gulph of Persia; and both appear connected with the Phenicians by means of the Elanitick Gulph, and with the Greeks in Egypt, by Arsinoè and Myos Hormus.

I am not ignorant that the establishment of a trade with India is attributed to Ptolemy Philadelphus⁶⁷, that the immense revenue and wealth of Egypt is imputed to this cause, and that a number of Indian captives are mentioned by Athenêus, as composing one part of the spectacle and procession, with which he entertained the citizens of Alexandria. But this last evidence, which is deemed conclusive, admits of an easy solution; for Indian was a word of almost as extensive signification in that age, as the present; it comprehended the Cafres of Africa, as well as the handsome Asia-tick blacks, and the commerce with Arabia was long called the Indian Trade, before the Greeks of Egypt found their way to India. But if réal Indians were a part of the procession, they were obtained in Sabêa. The Arabians dealt in slaves, and the Greeks

⁶⁷ See Harris's Voyages, vol. 1. book i. c. 2. compared with p. 421. This work is quoted as Harris's, but this part of it, in the second edition here referred to, is by Dr. Campbell;

and is executed most ably. I am obliged to him for many references to authors, which I have it not in my power always to acknowledge.

might find Indian slaves in their market as well as any other. Huet, Robertson, and Harris are all very desirous of finding a trade with India under the Ptolemies; but the two latter, as they approach the real age, when this commerce took place, upon the discovery of Hippalus, fully acknowledge, that all proofs of a more early existence of it are wanting; no contemporary author asserts it: and the testimony of Agatharchides, whether we place him in 177, or with Dodwell, in 104, A. C. affords perfect evidence to the contrary. The internal evidence of the work itself carries all the appearance of genuine truth, and copied as it is by Strabo and Diodorus it obtains additional authority⁶². They have both added particulars, but none which prove a direct communication with India in their own age. They both terminate their information at Sabæa, where he does, and both suppress one circumstance of his work which Photius has preserved, that ships from India were met with in the ports of Sabæa. Whatever knowledge of India, or Indian trade, they have beyond this, is such only as they derived from the Macedonians, and is totally distinct from the communication between Egypt and that country.

In regard to the influx of wealth into Egypt, it would be equally the same, whether the Greeks imported Indian commodities from Arabia or from India direct. For as the Sabæans were possessed of the monopoly between India and Egypt, so Egypt would enjoy the same monopoly between Sabæa and Europe.

⁶² The authority of Agatharchides is so often joined with that of Eratosthenes by Strabo, that it is highly probable it contains all that Eratosthenes knew, with the addition

of his own information. See Strabo, lib. xvi. p. 778. τὰλλα δὲ, τὰ μὲν παραλλοίσι τῷ Ἐρατοσθένει λέγει, τὰ δὲ καὶ παρὰ τοῖς ἄλλοις Ἰνδοῦ παρὰ τὴν αἴθρην.

The consumers, indeed, must bear the burden of this double monopoly, but the intermediate agents in both instances would be gainers, and the profits, while the trade was a monopoly, would be, as they always have been, enormous. The sovereigns of Egypt were well apprized of this, and so jealous were they of this prerogative of their capital, that no goods could pass through Alexandria either to India or Europe, without the intervening agency of an Alexandrian factor.

In the description which Agatharchides gives of Sabæa there is nothing inconsistent with probability; but this is the boundary of his knowledge towards the East, and the marvellous commences at the succeeding step, for he adds, that as soon as you are past Sabæa, the sea appears white like a river; that the Fortunate Islands skirt the coast, and that the flocks and herds are all white, and the females without horns⁶⁹. If this has any foundation in truth, the islands are those at the mouth of the gulph, if we ought not rather to understand the ports of Aden and Cana; and the mention of vessels arriving here from the Indus, Patala, Persis, and Karmania is agreeable to the system of the commerce in that age. A slight notice of the different appearance of the constellations next succeeds, and then an illustrious truth, that in this climate there is no twilight in the morning. Other circumstances are joined to this, which mislead; as the rising of the sun not like a disk but a column; and that no shadow is cast till it is an hour above the horizon. A more extraordinary effect is added, that the evening

⁶⁹ It is not extraordinary that sheep should be found without horns, but it is remarkable that this should be regarded as a marvellous occurrence from the time of Homer to that of Agatharchides.

twilight lasts three hours after sun-set. These circumstances are introduced to excite the attention of the modern navigator; for notwithstanding they may be false, still there may be certain phenomena that give an origin to the fiction.

If it should now be inquired how the commerce with India could be in this state so late as the reign of Ptolemy Philometor, or why the discoveries of Nearchus had not in all this time been prosecuted? the answer is not difficult. The fleets from Egypt found the commodities of India in Arabia, and the merchants contented themselves with buying in that market, without entering upon new adventures to an unknown coast. There is every reason to suppose that Sabæa had been the centre of this commerce long prior to the discoveries of Nearchus, and the age of Alexander; and it is highly probable that the Arabians had even previous⁷⁰ to that period ventured across the ocean with the monsoon. That they reached India is certain, for Indian commodities found their way into Egypt, and there is no conveyance of them so obvious as by means of Arabia and the Red Sea. The track of Arabian navigators is undoubtedly marked along the coast of Gadorfia, before Nearchus ventured to explore it, for the names he found there are many of them Arabick; and if conjecture in such a case be allowable, I should suppose that they kept along the coast of Gadorfia to Guadel or Possém, and then stood out to sea for the coast of Malabar. My reason for supposing this, is, that Nearchus found a pilot at Possém, which implies previous

⁷⁰ Harris, i. e. Dr. Campbell, Bruce, and Robertson all subscribe to this opinion, and from this fact a strong degree of probability attaches to the account of Ptolemy's freed man, for if he was carried to Ceylon by ac-

cident, he would readily find the means of returning by an Arabian vessel, he would likewise learn the nature of the monsoon. See Bruce, vol. i. 369.

navigation, and adds, that from that cape to the Gulph of Persia the coast was not so obscure as from the Indus to the cape.

But if Nearchus reported this, or if the commentaries in the Alexandrian library contained any correspondent information, how could Agatharchides be ignorant of the navigation beyond Sabæa? He was not ignorant of Nearchus's expedition, for he mentions the Ichthyophagi of Gadrosia, with many circumstances evidently derived from Nearchus, and others added, partly fabulous perhaps, and partly true, from other sources of intelligence, such as the histories, journals, or commentaries in the library.

He mentions expressly the manner of catching fish, as described by Nearchus, within nets extended along the shoals upon the coast⁷¹, and the habitations of the natives formed from the bones of the whale. He notices the ignorance and brutal manners of the natives, their dress, habits, and modes of life; and one circumstance he records, which he could not have extracted from Nearchus, which is that beyond the straits which separate Arabia from the opposite coast, (meaning, perhaps, the entrance to the Gulph of Persia,) there are an infinite number of scattered islands very small and very low, and extended along the sea which washes India and Gadrosia⁷², where the natives have no other means of supporting life but by the turtles which are found there in great abundance

⁷¹ He uses the very word, ἰσχυρα, so often commented on in the journal of Nearchus.

⁷² The mention of Gadrosia naturally induces obscurity and doubt, but the infinite

number of these islands can hardly apply to any, but the Laccdives or Maldives. The turtle also and tortoise shell is characteristic.

and of a prodigious size. I have thought it necessary not to omit this circumstance, because it appears to me as the first notice, however obscure, of the Lackdives and Maldives⁷³, called the islands of Limyricè in the Periplus, and distinguished particularly as producing the finest tortoise-shell in the world. The mention of them by Agatharchides appears to be the earliest intimation of their existence. In that sense the fact is curious, and consistent with the purpose of the work, which is at present to shew the progress of discovery, as recorded by contemporary authors.

The extravagances or improbabilities which contaminate several parts of this account in Agatharchides, have been disregarded by design; where knowledge ends fable commences, and much lenity of judgment is due to all writers who speak of distant countries for the first time, or by report. This author does not distinctly mark his Icthyophagi. They are not merely those of Gadrosia, but others also apparently on the coast of Arabia or Africa⁷⁴. Regions, it is true, where fish rather than bread has ever been the staff of life, and where it continues so at the present hour. Let any reader advert to the manner in which he speaks of the passage out of the Red Sea into the ocean, and he cannot fail to observe, that by giving the African coast an easterly direction, without notice of its falling down to the south, the commerce of that day had not yet passed cape Guardafui.

⁷³ Χρυσουρωπιτικὴ is by Salmastius, p. 997. supposed to relate to the Chryse of Ptolemy, i. c. Malacca, the Golden Chersonese. But it is coupled with the islands of Limyrikè. Χρυσουρωπιτικὴ ἢ ἡ περὶ τὰς ἰσθμὸς Θερμοπύλων,

ταῖς ἀρχαῖαις αὐτῆς τῆς Λιμυρικῆς. Periplus, p. 32.

⁷⁴ As are the Icthyophagi of Herodotus, lib. iii. p. 203. ed. Wessal.

Single ships⁷⁵, or a few in company, might have doubled that promontory and stood to the south, and others of the same description might even have reached India. Some obscure accounts from these were possibly conveyed to Alexandria, and from that source might have been recorded by Agatharchides, but these are all very different from his description of Sabæa, and comparatively vague or obscure. Of the trade to Sabæa he speaks distinctly, as a regular established commerce; so far his knowledge was genuine, beyond that it is precarious. This is an opinion collected from a full consideration of the work itself, and to which no one, perhaps, after a similar attention would refuse to subscribe.

It has been thought of importance to detail these particulars from Agatharchides, because he is the genuine source from which Diodorus, Strabo, Pliny⁷⁶, Pomponius Mela, and Ptolemy have derived their information. Diodorus lived in the beginning of the reign of Augustus. He has copied the whole of Agatharchides, so far as relates to the Ichthyophagi, Troglodytes, Ethiopians, and Arabians, in his third book. Strabo who lived to the end of Augustus's

⁷⁵ It is everywhere apparent, that Ptolemy Philadelphus was more ardent in discovery than his successors. The Greeks who had been in Abyssinia, as recorded by Pliny, vi. 35. were all possibly sent by him, as Dálion, Aristócreon, Bion, Bátilis, and Simónides; and Timóthenes his admiral had certainly gone down the coast of Africa; for to him Pliny attributes the first mention of Cernè or Madagascar. But what is here asserted is meant only to say, that no trade on that coast existed in consequence of this discovery, as late as

Agatharchides; and even in the age of the Periplus the trade reaches no farther than Rhaptum and Menuthias, Zanguebar, in south lat. 6° 0' 0". whereas the north point of Madagascar is in lat. 12° 0' 0". Ptolemy also only goes to Prasum, lat. 15° 0' 0".

⁷⁶ Pliny rather accords with Agatharchides than copies him; he seems to have gone to the source;—those Greeks I mean who entered Ethiopia in the age of Philadelphus. See lib. vi. 35.

reign⁷⁷, has followed Agatharchides in regard to the same countries, in his sixteenth book, and has added little to our knowledge of Arabia, but the expedition of Elius Gallus into that country. He has little more express concerning the navigation down the coast of Africa, and eastward he stops at Sabæa with his author. On the coast of Gadrosia he has followed Nearchus more faithfully than Agatharchides, but has no mention of the Lackdive Islands; and the little he says of Taprobana, is a proof that it was known by report, but not yet visited. Pliny and Pomponius Mela in many detached parts tread the same ground, and copy the same author.

But if Agatharchides lived under Ptolemy Philomêtor, it is natural to ask, had nothing been done during 170 years, towards further discovery by the fleets that sailed annually from Egypt? The answer is, that whatever was done is not recorded; the course of discovery was doubtless in progression; but there is a great difference between effecting the discovery, and bringing it into general knowledge, or making it a part of history. It is possible, also, that the sovereigns of Egypt were more jealous of the trade than am-

⁷⁷ The Romans do not appear a commercial people, because their great officers and their historians are too much attached to war, and the acquisition of power, to notice it. All, therefore, that we hear of commerce is obliquely, but the wealth of merchants was proverbial. (See Horace, lib. iii. od. 6. l. 30. See Cicero, who says, in contempt indeed, is such a man who was a merchant and neighbour of Scipio, greater than Scipio, because he is richer?) But attend only to the merchants who followed the armies, who fixed in the provinces subdued or allied, the Italian generis

homines, who were agents, traders, and monopolists, such as Jugurtha took in Zama, or the 100,000 that Mithridates slaughtered in Asia Minor, or the merchants killed at Genabum [Orleans], Casar Bell. Gall. and you see the spirit of adventure, and the extent of commerce at a single glance. (See also the Letters of Cicero, while proconsul of Cilicia.) Dr. Campbell, in his Political Survey, has proved their conduct on this matter in regard to Britain, and the present work will give a most extraordinary specimen of it in Egypt.

bitious of the honour; and the later princes were more likely to cramp commerce by extortion, than to favour it by protection. The Phenicians had manifestly a share in the profits from its commencement, and it was not unlikely that the Romans might have felt this as an additional incentive for the subjugation of Egypt, if they had been fully informed of the means it afforded for adding to the wealth and aggrandisement of the republic.

It is not meant, therefore, to deny the extension of the voyages progressively, either to the east or the south; for as long as there was any vigour in the government of Alexandria, the trade on the Red Sea was a favoured object. We learn from Strabo and Diodorus, a circumstance not mentioned in Agatharchides, and probably later than his age, that the Nabathæans at the head of the gulph had molested the fleet from Egypt by their piracies, and had been suppressed by a naval force fitted out for that purpose. This, at the same time it proves the attention of the Egyptian government to this trade, proves likewise that the fleets still crossed the gulph from Myos Hormus or Berenice, and did not strike down at once to Mûsa or Ócelis, as they did in the age of the Periplûs.

This mark of attention also adds highly to the probability, that some progress had been made to the south, down the coast of Africa; for there, from the first mention of it, there seems always to have been a mart for Indian commodities; and the port of Mosyllon, as appears afterwards by the Periplûs, was a rival to Sabæa or Hadramant. Mosyllon was under the power of the Arabian king of Maphartis, in the same manner as the Portuguese found that nation masters of the coast of Africa, fifteen centuries later, and the convenience of these possessions to the Arabs is self-evident;

for as vessels coming with the monsoon, for the Gulph of Persia make Maskat, so those bound for Hadramant or Aden run down their longitude to the coast of Africa; here, therefore, from the earliest period that the monsoons were known to the Arabians, perhaps much prior to Alexander, there would be marts for Indian commodities; and here it is highly probable the fleets from Egypt found them, when the Sabæans were too high in their demands.

That this commerce had taken place soon after the time of Agatharchides may be collected from Strabo, who cites Artemidôrus to prove that there was a trade on the coast of Africa as low as the Southern Horn. He mentions, indeed, that at the fraits of the Red Sea the cargo was transferred from ships to boats or rafts, which, though it manifests that the navigation was only at its commencement, still proves its existence. He does not name Mofyllon, but the Periplus, by noticing that several articles were called Mofyllitick, demonstrates, that a commerce had been carried on at that port previous to its own age, and that Indian commodities were sought on that coast before they were brought immediately from India. If there were such a mart, this must be a necessary event, for in the first instance the trade of Sabæa was a monopoly, and if the sovereigns of Aden or Maphartis had opened the commerce, either in their own country or Africa, it would draw a resort thither as soon as the port could be known, or the voyage so it be effected. The date of this transaction it is impossible to ascertain, but a variety of circumstances concur to shew that it had taken place previous to the discovery of the monsoon by Hippalus.

HIPPALUS.

VIII. THE discovery of Hippalus opens a scene entirely new to our contemplation; and if it has appeared that hitherto there are only two sources of information, the Macedonians and Agatharchides; if it has been shewn that all the authors between Agatharchides and the discovery, speak the same language; it will now be still more evident, that a new era commences at this point, and that the Periplus, Pliny, and Ptolemy are as uniform in one system as their predecessors were in another, previous to the discovery.

Dodwell has observed, with his usual acuteness, that it is no proof that the Periplus is contemporary with the age of Pliny, because he mentions the same sovereigns, in the different countries of which it treats; for he adds, Ptolemy notices the very same, Ceybotas in Limyrice and Pandion in Malabar. He supposes, therefore, that the Periplus copied Pliny or Pliny's authorities, and that the same princes might be reigning from the time of Vespasian to the reign of Adrian. But would not this correspondence of the three be equally consistent, if we suppose them all to have but one source of information? Dodwell would subscribe to this in regard to Pliny and Ptolemy, whose age is known, but he refuses this solution to that of the Periplus, the date of which he chooses to bring down as low as Verus. Of this more in its proper place.

The truth is, that there are no data for fixing the discovery of Hippalus with precision. It is certainly subsequent to Strabo whose

death is placed⁷⁸, anno 25. P. C. for Strabo who was in Egypt with Elius Gallus must have heard of it, and to all appearance it must have been later than the accident, which happened to the freedman of Annius Plocamus, who, while he was collecting the tribute on the coast of Arabia, was caught by the monsoon and carried over to the island of Ceylon. This happened in the reign of Claudius, under whom Plocamus was farmer of the revenue in the Red Sea. The reign of Claudius commences in the year 41 of our era, and ends in 54. Let us assume the middle of his reign, or the year 47, for this transaction, and as Pliny dedicates his work to Titus the son of Vespasian, if we take the middle of Vespasian's reign it coincides with the year 73⁷⁹. This reduces the space for inquiry within the limits of twenty-six years. From these we may detract the first years of Vespasian, which were too turbulent for attention to commerce, with the two years of Galba, Otho, and Vitellius; Nero reigned fourteen, and in the early part of his reign, or the six last of Claudius, the date might be fixed with the greatest probability, because, if we suppose the return of the freedman of Plocamus, the embassy that accompanied him, or the knowledge he acquired to be a cause, or in any degree connected with the discovery, this space confined to about ten years is the most consistent of all others, to allot to this purpose⁸⁰. Another fact connected with this is, the profusion of Nero in cinnamon and aromatics,

⁷⁸ Blair's Chronology says twenty-five years, A. C. which is impossible, for Augustus subdued Egypt, anno 30, A. C. and Strabo must have been in Egypt with Gallus in twenty-seven, or twenty-six, A. C. He could not write

his work between that and twenty-five.

⁷⁹ Salmastius says, 77. 830 anno urbis condite, p. 1186.

⁸⁰ Harris fixes Hippalus's discovery in the reign of Claudius, vol. i. 431.

at the funeral of Poppæa²¹. An extravagance, wanton as it is, which bespeaks something like a direct importation of the material. And we are likewise informed by Pliny, that he sent two centurions from Egypt up into Ethiopia to obtain a knowledge of the interior; an inquiry naturally attached to the discoveries on the coast.

The usual date attributed to the discovery of Hippalus is the reign of Claudius. Dodwell and Harris are both of this opinion, and the latter, or rather Dr. Campbell his editor, has treated this subject so ably, that if it were not necessary for the illustration of the work before us, it would have been sufficient to refer to his inquiries, rather than to tread the ground again which he has occupied. Let us assume then the seventh year of Claudius²², answering to the forty-seventh of the Christian era, for the discovery of Hippalus, and the next object of inquiry will naturally be the date of the work which we are to examine.

AGE OF THE AUTHOR OF THE PERIPLÙS.

IX. THE learned Dodwell and Salmasius affix two very different dates to the Periplus, and between two such able disputants it is easier to chuse than decide. My own observations lead me to prefer the opinion of Salmasius, but not so peremptorily as to

²¹ See Pliny, lib. xii. c. 18. the passage itself is obscure, it proves that Pliny knew, (what was not known in the prior age,) that cinnamon and cassia were not the native produce of Arabia. But it does not fully prove that the merchants imported them from more distant parts.

²² Dodwell says, in primis annis Claudii, and supposes that Pliny takes his account of Hippalus from a work which Claudius himself wrote; certain it is, that the memory of Claudius was revered by the Alexandrians, and not improbably by reason of this discovery and the prosecution of it.

suppose the question cleared of all its difficulties, and there is a hint dropt by Dodwell, that I should wish to adopt, if I were not convinced that the author of the *Periplus* really visited several of the countries he describes.

Dodwell supposes that the work was compiled by some Alexandrian²³ from the journal of Hippalus; and so far it is just to allow, that the parallel information in Pliny and the *Periplus* does not appear so properly to be copied by either from the other, as from some authority common to both. But that the author, whatever he copied, was a navigator or a merchant himself, cannot be denied, when we find him speaking in the first person upon some occasions, and when we read his account of the tides in the gulph of Cambay, which is too graphical to come from any pen but that of an eye-witness.

This author and Pliny agree in the description of Hadramant²⁴ and Sabbathath, in the names of the kings and of the ports on the coast of Malabar, as Muziris and Cottonara, and of the Sinthus; in the departure of the fleets from Ocelis and Cana, and a variety of other circumstances; but their most remarkable correspondence is in their history of the Spikenard and Costus²⁵; both mention the

Ganges

²³ Certe Hippali personæ conveniunt examuffin hujus itinerarii note. Nomen ipsum illam Alexandrinum fuisse prodit, nec Romanum scilicet, nec Ægyptium, sed plausè Grecum, qualia erant colonorum Macedonum Alexandrinorum. Differt. p. 102.

²⁴ Ἰνδία τὸ δὲ αὐτῆς μεθόρου ἢ Μαρράου; Sabatha δὲ εἰς τὴν ἑβραϊκὴν κατακοι, τὰς δὲ γινόμεναις ἐν τῇ χώρῃ Ἰλθαυς ἐς αὐτὴν ὁμοίως ἐδοχίαις ἰσχυρίται καμύου τῆ καὶ χυδαίς ἰστοίαις δεμα

νίας ἐξ ἀσπῆς ἢ κλίαις. *Perip.* p. 15.

Tus collectum Sabota camelis convehitur portâ ad id unâ patente, digredi viâ capital. *Plin. Salmat.* 492.

²⁵ Pliny, lib. xii. c. 12. Ed. Hard. De folio Nardi plura dici par est ut principale in Unguentis. . . alterum ejus genus apud Gangem nascens; damatur in totum, Oxentidis nomine, virus redolens.—The first is the Gangitica of the *Periplus*, written also Gapanica. The latter

Ganges and Ozênè as the marts for the former, and the Patalêne for the latter. The intelligence is undoubtedly the same in both, and yet there is no absolute proof that either copied from the other. But those who are acquainted with Pliny's method of abbreviation would much rather conclude, if one must be a copyist, that his title to this office is the clearest. Wherever we can trace him to the authorities he follows, we find that narratives are contracted into a single sentence, and descriptions into an epithet. This appears to me fully ascertained in the present instance, but conclusions of this sort are not hastily to be adopted.

Pliny perished in the eruption of Vesúvius the same year that Vespasian died, which is the seventy-ninth of our era; and if we place the discovery of Hippalus in forty-seven, a space of thirty years, is sufficient for the circumstances of the voyage, and the trade to be known in Egypt; from whence to Rome the propagation of intelligence is more natural than the reverse. But if we should be disposed, with Dodwell, to carry the date of the Periplus down to the reign of Marcus and Lucius Verus^a, that commenced in 161;

latter is from the Ozênè of the Periplus; which Harduin is so far from understanding, that he writes Ozaniticidâ ab Ὄζαντις, quod odore fædo nares feriat. The Coloss Pliny mentions as obtained at Patala. Primo statim introitu annis Indi in Patala Insula, where the Periplus also finds it. See Perip. p. 28, 36. compared with p. 32. If these passages of the Periplus had stood contiguous, as they do in Pliny, the proof would have been complete; scattered as they are, it is nearly so.

^a The passage in the Periplus runs thus: Χαριβαήλ . . . συνήχθη προσβέναις ἐξ ἡμερῶν φίλοις τῶν ἀντοκρατόρων p. 13, that is, Charibaël king of Saphar, is upon friendly terms with

the Roman emperors, and receives presents and embassies from them. The word *emperores*, in the plural, induces Dodwell to carry down the date till he meets with two joint emperors reigning together. That a plural does not require this we may learn from Dionysius Perieg. who says of Rome, ἐπιπέ μὲν γὰρ ἕκαστος ἄριστος, whence Barthius draws a similar conclusion, that Dionysius lived under the Antonines; but Pliny writes, Dionysium, quem in orientem præmiit Divus Augustus, lib. vi. 27. a clear proof that Dionysius lived under Augustus. This argument is from Vossius, Pref. ad Dionys. Perieg.

and at the distance of almost a century, its correspondence with Pliny is by no means equally consistent.

The strength of Dodwell's argument lies in the report of the *Periplus*, concerning the destruction of Arabia Felix, or Aden⁸⁷, by the Romans; and the mention of the coast of Africa being subject to the sovereign of Maphartis, king of the *first*⁸⁸ Arabia. The title of *first* or *second* annexed to a province, is a division which certainly seems of later date under the emperors, than any period that would suit the system of Salmasius; but there is reason to suspect the text, or the rendering of it; and no authority which appears sufficient to prove that the territory of Maphartis ever was a Roman province in any age; or even if it might be so called, as being tributary, no reason can be given why it should be distinguished as the *first*.

In regard to the destruction of Aden by Cesar, the author of the *Periplus* says⁸⁹, it happened not long before his time. But what Cesar this should be is a great difficulty. Dodwell, who supposes that it must be by some Cesar who destroyed it in person, can find no emperor to whom it can be attributed prior to Trajan. But Trajan never was on the southern coast of Arabia; he entered the country from the Gulph of Persia, but never penetrated to the southern coast by land, and never approached it from the Gulph of Arabia. It is much more just, therefore, to conclude that Aden⁹⁰ was destroyed by the command of Cesar, than by

⁸⁷ Page 15. ⁸⁸ Page 10. ⁸⁹ Page 15.

⁹⁰ The proof that Aden is the Arabia Felix of the *Periplus*, rests upon the interpretation of Aden=deliciae, by Huet, and admitted by d'Anville, from its situation, which is cer-

tainly correspondent, or very nearly so. It is an unusual form for a name of a town: but is confirmed by Pomp. Mela, lib. iii. c. 8. Cause, Arabia et Gandamuis.

Cesar in person; and if so, any Cesar whose age will coincide with other circumstances may be assumed. Many probabilities conspire to make us conclude that this was Claudius.

The Romans, from the time they first entered Arabia under Elius Gallus, had always maintained a footing on the coast of the Red Sea. They had a garrison at Leuké Komé in Nabathæa^o, where they collected the customs, and it is apparent that they extended their power down the gulph, and to the ports of the ocean, in the reign of Claudius, as the freedman of Annus Plocamus was in the act of collecting the tribute there, when he was carried out to sea. 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. Aden had been one of the great marts for the Indian commerce, and if Claudius, or the prefect of Egypt, was now disposed to appropriate this trade to the Romans, this was a sufficient cause for ruining Aden, in order to suppress rivals or interlopers. The jealousy or opposition of Aden to the new discovery would naturally afford ground for quarrel, and if not, the Romans knew how to provoke one whenever it suited their interest.

These considerations are offered as a probable answer to the weightiest of Dodwell's arguments; his long and tedious disquisition concerning Palesimundus, will defeat itself. It stands thus: having determined that the age of the Periplus must be that of Marcus and Lucius Verus, he is obliged to suppose, that the author could not have seen the work of Ptolemy, who lived in the reign of Adrian. Now the reasons for establishing the priority of the

^o A port north of Jidda and Yambo.

Periplûs are these; first in going down the coast of Africa, the extent of discovery is Rhaptum, in latitude 10° 0' 0" south; but in Ptolemy a farther progress is made to Prafum, in latitude 15° 0' 0" south. This naturally appears a proof that Ptolemy is the later writer. But a stronger follows; the Periplûs styles Ceylon, Palefimundu, and adds, "it is the same island as the ancients called "Taprobana". But in the time of Ptolemy it had acquired a third name, Sâlicè, and he accordingly writes, "Sâlicè, which was "formerly named Palefimundus." It follows then, that the author who writes Palefimundus must be prior to the author who writes Sâlicè. Dodwell, in order to obviate this self-evident truth, in the true spirit of system, is necessitated to argue, that the author of the Periplûs, though an Alexandrian, had never seen the work of Ptolemy; who was of Alexandria also; but that he copies Pliny, who was a Roman; and then to support this strange hypothesis, he is compelled to maintain, that the Palefimundus of Pliny is not Ceylon, or the Taprobana of the ancients, but the Hippocurâ of Ptolemy on the coast of Malabar. How these assertions could be deemed authentic by any one, when Dodwell wrote, is incomprehensible, unless we calculate the dignity which attaches to erudition. But we now know that Sâlicè is derived from Sala-bha²¹, the Shankreet name of Ceylon, and Palefimundus, from Parashri-mandala, the country of Parashri²², or the Indian Bacchus. Both are native names, and voyagers at different times acquired both from the

²¹ Page 35.

²² Paolino, p. 372. Regi, cultum Liberi

²³ Paolino, p. 108. Sala is manifestly the root of Sâlicè, of Selen-dih, or Seven-dive and Ceylon. The king, says Pliny, worships Bacchus.

natives. When the island of Ceylon comes under consideration in the course of the narrative, more will be said on this subject, at present this is ample proof, that the merchants in the age of the author called Ceylon Palesimundus, and that in Ptolemy's age it was styled Sálícè; if Ptolemy then allows the former to be first in use, the Periplús must of necessity be prior to his publication.

Dodwell says⁹⁴, that none of Ptolemy's astronomical observations are earlier than the ninth year of Adrian, answering to 123, A. D. If then the first year of Marcus and Lucius Verus is 161, A. D. We add nearly forty years to the antiquity of the Periplús at one step, it could not be later than 123, and how much earlier must be the next object of our inquiry. On this head probability and conjecture must supply the place of proof. The author speaks of the discovery of Hippalus, without specifying its date, or its distance from his own time. Some considerable interval is manifest from his expression, when he says, "from the time of Hippalus to this day some sail straight from Kanè, &c."⁹⁵ but what space to allot to this interval is by no means evident. From the seventh of Claudius, the assumed epoch of the discovery, to the ninth of Adrian⁹⁶, is seventy-eight years, a space in which we may fix the publication of the Periplús, so as best to suit with other circumstances, and there is one reason to fix it considerably previous to Ptolemy⁹⁷, which is this; Ptolemy professes to derive his

⁹⁴ Dissert. p. 89.

⁹⁵ Page 32.

⁹⁶ Ptolemy, published much later, for he lived till 161 at least, near forty years after the 9th of Adrian.

⁹⁷ Salmastius writes, hinc liquet auctorem esse vetustissimum & longe Ptolemæo anteriorem, at the conclusion of his argument on the temple of Augustus, in Limýricè. Plin. Ex. p. 1186.

information from the merchants of Egypt, and the Periplus seems to be the very work he would have consulted; if he had known it, and yet one circumstance is sufficient to prove, that it never came under his contemplation. His error of extending the coast of Malabar west and east, instead of north and south, is notorious; this he could not have done if he had consulted the Periplus, for there it is laid down in its proper direction. This induces a belief, that it was not published in, or near the age of Ptolemy, but so much prior as to be neglected, or from its compass and contents not to have obtained much notice at the time of its publication. It is not easy to account for Ptolemy's disregard of it on any other ground, unless he knowingly slighted it, and preferred the accounts of later voyagers.

But in order to see the state of things suitable to the internal evidence of the Periplus, we must take a view of the Roman government in Egypt. Egypt became a Roman province in the year thirty before our era, and from the moment it was subdued, Augustus planned the extension of the Roman power into Arabia and Ethiopia, supposing that Arabia produced spices, and Ethiopia, gold, because these were the articles brought out of those countries into Egypt. The avidity with which this plan was adopted may be conceived by observing that, within ten years after the reduction of Egypt, Gallus had penetrated into the heart of Arabia, and Petronius had advanced eight hundred and seventy miles above Syênè into Ethiopia, and reduced Candacè the queen of that country to the condition of a tributary.

The expedition of Petronius is fixed to a certainty in 21, A. C. because the ambassadors of Candacè found Augustus at Samos,

Samos, where he was that year; and that of Gallus⁹⁹ was contemporary, because his absence with a part of the troops of the province was the inducement for Candacè to insult the government. And it must have been but a very few years after this, that Strabo went up to Syênè with Elius Gallus¹⁰⁰, who was then become prefect. Upon this occasion he observes, that he was informed an hundred and twenty ships now sailed from Myos Hormus annually for India, whereas, under the Ptolemies, a very few only had dared to undertake that voyage¹⁰¹.

The embassies from Porus and Pandion to Augustus, mentioned with so much ostentation by the historians, afford considerable proof of the progress of Roman discovery in the east; and the vessels which conveyed these ambassadors from the coast of Malabar must have landed them either in Arabia, or in the Gulph of Persia, or the Red Sea; the conveyance also of the freedman of Plocamus back again from Ceylon to Egypt, proves that the voyage was performed previous to the discovery of Hippalus. Agreeably, therefore, to the assertion in the Periplus we ought to suppose that none of these conveyances were performed by means of the monsoon, unless we should allow the vessels to be Indian or Arabian, for both these nations appear visibly to have known the nature of these winds long before the Romans were acquainted with them. From these circumstances we may collect the extreme desire of Augustus to extend his knowledge and his power towards the east, and though the inert reign of Tiberius, or the wild tyranny of Caligula, furnish no documents of a further progress,

⁹⁹ Strabo, lib. xvii. p. 819.

¹⁰⁰ Strabo, lib. ii. p. 118.

¹⁰¹ Ὀπίως πρὸς τὸν Ἰνδόν. Ibid.

we may conclude, that the prefects of Egypt were still intent on promoting a discovery once commenced, and with which the emoluments of their own government were so immediately connected. We must suppose, that the Roman fleet was superior in the Red Sea and on the southern coast of Arabia, before any of the powers on that coast could become tributary, and tributary they indubitably were before the reign of Claudius, or Plocamus could not have been farmer of the revenue.

When the freedman of Plocamus returned from Ceylon, if he came in a Roman vessel he must have coasted his whole voyage; but as the king of Ceylon sent four ambassadors with him to Claudius, and a rajah¹⁰² to take charge of the whole, we must conclude that they came in an Indian vessel to Arabia, and that the freedman learned the nature of the monsoon in the course of his navigation; this is so near in point of time, that we cannot be mistaken in supposing it, connected with the attempt of Hippalus, and in consequence of it, the revolution in the whole course of Oriental commerce.

The advantage which Claudius made of this discovery, and the prosecution of it so beneficial to Egypt, rendered his name dear to the Alexandrians; his writings were rehearsed in their museum; and the account he gave of this commerce is justly believed by Dodwell to be the source of Pliny's information¹⁰³.

It is this circumstance which above all others induces me to fix the destruction of Aden under Claudius, or at latest under Nero, whose

¹⁰² Principe corum Rachiâ, Pliny. I have no hesitation in subscribing to the opinion of Paulino, that Rachiâ is Rajah.

¹⁰³ Dodwell, Dissert. p. 93. from Suetonius Claud. c. 42. But this was not their own act, it was by order of Claudius.

mind was equally fixed on Ethiopia, Arabia, and India, as the fountains of all the treasures of the east. The more important every step grew in pursuing this commerce to the source, the greater temptation there was to suppress every power which could come in competition. One thing is evident, Aden was not destroyed by any Cæsar in person; for we cannot find in all history a Cæsar that ever visited the southern coast of Arabia. If it was by the command of Cæsar, it suits no one so well as Claudius or Nero, or if they are too early, there is no other but the reign of Adrian to which it can be attributed. Adrian was in Egypt himself; his system was all directed to regulation and improvement of the provinces; this might be a part of his plan. But there is nothing in the Periplus itself to make us adopt this period and much to contradict it.

It has been necessary to investigate this fact with accuracy, because the date of the work depends upon it; for at whatever point we fix the destruction of Aden, very near to that we must fix the Periplus; as the author intimates that it was not long before the period in which, he writes. It is not satisfactory to leave this question resting upon probabilities only. But where history is silent, probability is our only guide, and correspondent circumstances are the best foundation of probability.

From these premises the reign of Nero appears most accordant to the internal evidence of the work itself, or if the reign of Adrian should be preferred, it must be the year he was in Egypt, which is the tenth of his reign, and answers to the year 126, A. D. The objection to this is its coincidence with the age of Ptolemy, which for the reasons already specified can hardly be reconciled

reconciled to consistence. I assume, therefore, the reign of Claudius for the discovery of Hippalus, and the tenth year of Nero for the date of the Periplus, leaving the question still open for the investigation of those who have better opportunities for deciding upon its precision.

INTERCOURSE WITH INDIA ANTECEDENT TO HISTORY.

X. IN entering upon this subject two considerations present themselves to our view, which must be kept perfectly separate and distinct: the first is, that the intercourse itself is historical; the second, that the means of intercourse can only be collected from circumstances: the former admits of proof; the latter is at best hypothetical. I can prove that spices were brought into Egypt, (which implies their introduction into all the countries on the Mediterranean,) and I argue from analogy, that Thebes and Memphis in their respective ages were the centre of this intercourse, as Alexandria was afterwards, and as Cairo is, in some degree, even at the present hour.

That some Oriental spices came into Egypt has been frequently asserted, from the nature of the aromatics which were employed in embalming the mummies¹⁰⁴; and in the thirtieth chapter of Exodus we find an enumeration of cinnamon, cassia, myrrh, frankincense, stacte, onycha, and galbanum, which are all the produce either of India or Arabia. Moses speaks of these as precious, and appropriate to religious uses; but at the same time in such

¹⁰⁴ Mummia, or Mumia, was once a medicine, certainly not on account of the cadaverous but the aromatic substance.

quantities¹⁰⁵, as to shew they were neither very rare, or very difficult to be obtained: Now it happens that cinnamon and cassia are two species of the same spice¹⁰⁶, and that spice is not to be found nearer Egypt or Palestine, than Ceylon¹⁰⁶, or the coast of Malabar. If then they were found in Egypt, they must have been imported; there must have been intermediate carriers, and a communication of some kind or other, even in that age, must have been open between India and Egypt. That the Egyptians themselves might be ignorant of this, is possible; for that the Greeks and Romans, as late as the time of Augustus¹⁰⁷, thought cinnamon the produce of Arabia, is manifest from their writings. But it has been proved from Agatharchides, that the merchants of Sabæa traded to India, and that at the time when Egypt possessed the monopoly of this trade in regard to Europe¹⁰⁸, the Sabæans enjoyed a similar advantage in regard to Egypt. Of these circumstances Europe was ignorant, or only imperfectly informed; and if such was the case in so late a period as 200 years before the Christian æra, the same circumstances may be supposed in any given age where it may be necessary to place them.

There are but two possible means of conveying the commodities of India to the west, one by land through Persia or the provinces on the north, the other by sea; and if by sea, Arabia must in all

¹⁰⁵ Five hundred shekels of myrrh, five hundred of cassia, two hundred and fifty of cinnamon.

¹⁰⁶ See article Cassia Cassia in the list of articles of commerce.

¹⁰⁷ See Strabo, lib. xvi. passim.

¹⁰⁸ Καὶ γὰρ δὴ καὶ μεσοπλάσιος ἔχει. Μένει γὰρ

ἡ Ἀλεξάνδρεια τῶν ταύτων ἐκὶ τὸ πλεῖον καὶ ὑποδύχειν ἐστὶ, καὶ χορηγεῖ τοῖς ἱερῶς. Alexandria has the whole monopoly to herself. She is the receptacle of all [Indian] goods, and the dispenser of them to all other nations. Strabo, lib. xvii. p. 798.

ages have been the medium through which this commerce passed, whether the Arabians went to Malabar itself, or obtained these articles in Carmania, or at the mouths of the Indus.

In order to set this in its proper light, it is necessary to suppose, that the spices in the most southern provinces of India were known in the most northern, and if from the north, they might pass by land; from the south, they would certainly pass by sea, if the sea were navigated. But in no age were the Persians¹⁰⁹, Indians, or Egyptians, navigators; and if we exclude these, we have no other choice but to fix upon the Arabians, as the only nation which could furnish mariners, carriers, or merchants in the Indian ocean.

But let us trace the communication by land on the north: it is only in this one instance that I shall touch upon it; and that only because it relates to an account prior to Moses. Semiramis¹¹⁰ is said to have erected a column, on which the immensity of her conquests was described, as extending from Ninus or Ninivè, to the Itâmenes, (Jômanes or Jumna,) eastward; and southward, to the country which produced myrrh and frankincense; that is, eastward to the interior of India, and southward to Arabia. Now, fabulous as this pillar may be, and fabulous as the whole history of Semiramis may be, there is still a degree of consistency in the fable; for the tradition is general, that the Assyrians of Ninivè did make

¹⁰⁹ It is not meant to assert that these nations never used the sea; they certainly did, upon their own coasts, but there are not now, nor does history prove that there ever were, any navigators, properly so called, in the eastern seas, except the Arabians, Malays,

and Chinese. The Chinese probably never passed the straits of Malacca, the Malays seem in all ages to have traded with India, and probably with the coast of Africa.

¹¹⁰ Bochart, tom. i. p. 109. from Dio-

an irruption into India; and the return of Semiramis¹¹¹ through Gadoria, by the route which Alexander afterwards pursued, is noticed by all the historians of the Macedonian. If, therefore, there is any truth concealed under this history of Semiramis, the field is open for conceiving a constant intercourse established between India and the Assyrian empire, and a ready communication between that empire and the countries bordering on the Mediterranean. This intercourse would account for the introduction of the gums, drugs, and spices of India into Egypt, as early as the 21st. century before the Christian era¹¹², and 476 years antecedent to the age of Moses.

But this is not the leading character in the accounts left us by the Greek historians¹¹³; they all tend to Phenicia and Arabia. The Arabians have a sea coast round three sides of their vast peninsula; they had no prejudices against navigation either from habit or religion. There is no history which treats of them, which does not notice them as pirates or merchants by sea, as robbers or traders by land. We scarcely touch upon them accidentally in any

¹¹¹ When two fables of two different countries agree, there is always reason to suppose that they are founded on truth: the Mahabharat is perhaps as fabulous as the history of Semiramis; but this work (in Col. Dow's account of it,) specifies, upon a variety of occasions, the great attention of the Indian sovereigns to pay their tribute to their western conquerors. I cannot trace this to its causes or consequences, but it always seems to justify the idea, that there had been some conquest of India, by the nations which inhabited those

provinces which afterwards composed the Persian empire. It is this conquest in which the Grecian accounts of Semiramis and the Mahabharat agree.

¹¹² Semiramis, A. C. 2007. Moses in Midian 1531. Blair.

¹¹³ Herodotus, lib. iii. p. 250. reckons up frankincense, myrrh, cassia, cinnamon, ladanum, (a gum,) and storax as the produce of Arabia: these commodities were brought into Greece by the Phenicians. See also p. 252.

author, without finding that they were the carriers of the Indian ocean.

Sabæa¹¹⁴, Hadramaut, and Oman were the residence of navigators in all ages, from the time that history begins to speak of them; and there is every reason to imagine that they were equally so, before the historians acquired a knowledge of them, as they have since continued down to the present age.

It is surely not too much to admit that a nation with these dispositions, in the very earliest ages crossed the Gulph of Persia from Oman to Carmania: the transit in some places is not forty miles; the opposite coast is visible from their own shore¹¹⁵; and if you once land them in Carmania, you open a passage to the Indus, and to the western coast of India, as a conclusion which follows of course.

I grant that this is wholly hypothetical; but where history stops, this is all that rational inquiry can demand. The first history to be depended on, is that of Agatharchides. He found Sabæa, or Yemen, in possession of all the splendour that a monopoly of the Indian trade must ever produce, and either here or at Hadramaut or Oman it must ever have been: these provinces all lie within the region of the monsoons, and there is every reason to imagine that they had availed themselves of these in the earliest ages, as well as in the latest. I conclude that their knowledge in this respect is prior to the building of Thebes; and that if the monopoly on the

¹¹⁴ Hadramaut is the Atromitis of the Greeks; it is nearly central between Sabæa and Oman on the ocean. Oman is the eastern part of Arabia, towards the Gulph of Persia.

Sabæa is Yemen, on the Red Sea, but extends, or did anciently extend, to the ports on the ocean, as Aden, &c.

¹¹⁵ Strabo, lib. xvi. p. 769 et. seq. 92.

eastern side of the Red Sea was in their hands, that on the western side was fixed at Thebes. The splendour of that city, still visible in its very ruins, is in no other way to be accounted for: it is exactly parallel to the case of Alexandria in a later period; for Alexandria did not trade to India, the monopoly was still in Sabæa when Agatharchides wrote, and the monopoly at Alexandria was as perfect in regard to the Mediterranean, as that of Sabæa was in regard to the Indian ocean. The wealth of the Ptolemies was as pre-eminent as that of the Thebaick Dynasties, and the power and conquests of a Philadelphus or Euergetes¹¹⁶ less fabulous than those of Sesonchosis.

That the Grecian Dynasty in Egypt tried every experiment to evade the monopoly at Sabæa, is manifest from history. The straits¹¹⁷ of the Red Sea were passed, the ports of Arabia on the ocean were explored, the marts on the coasts of Africa were visited, Indian commodities were found in all of them. A proof direct, that the monsoon was at that time known to the Arabians¹¹⁸, though history knew nothing of it till the discovery of Hippalus; that is, till 200 years later: this is the more extraordinary, as the fact had been ascertained in part by the voyage of Nearchus, and as all its consequences would have been explored, if Alexander had lived another year. I always wish to be understood as never asserting

¹¹⁶ Euergetes says, in the Adulitick Inscription, he had reduced the *whole* world to peace. Sesonchosis could do no more.

¹¹⁷ Strabo, lib. xvi. p. 773.

¹¹⁸ I had expected to find an account of the monsoons in the Oriental writers; but as my acquaintance with them by translations only,

must be very confined, I have met with only one instance, and that in a very different region. Ventus marinus (ex integris mensibus regnat in illo, [mari tenebroso,] et tum in alium ventum convertitur. Al. Ednissi, p. 34. the *Mare Tenebrosum* is at least east of Malacca, if not of China.

that the voyage between Egypt and India was utterly unpractised by the Greeks; the evidence is clear, that some few vessels performed it, but they coasted the whole way⁴⁹: the greatest number is that mentioned by Strabo of an hundred and twenty ships. The expence of such a navigation did not answer; it was found cheaper to purchase Indian goods in the old markets: the passage by the monsoon was never attempted; and the solitary fact of all history, which I can discover, previous to Hippalus, is that in the fabulous account of Iambulus. I believe that fact, not as performed by Iambulus, but as an evidence that some such passage had been heard of, that an obscure notion prevailed that it was made from the coast of Africa, and that, therefore, it was interwoven with the piece to give the fable an appearance of reality. I believe it to have had its rise from Arabia; and it is one proof among others, that the Arabians did reach India prior to history, and a sufficient reason why the Greeks found it cheaper to purchase their cargoes in the Arabian markets, rather than to go to India themselves. A truth certainly, if the Arabians sailed with the monsoon, and the Greeks coasted the whole voyage.

These considerations taken in the mass, induce a belief that in the very earliest ages, even prior to Moses; the communication with India was open, that the intercourse with that continent was in the hands of the Arabians, that Thebes had owed its splendour

⁴⁹ Περικλοπλοῖες. Periplūs. Strabo does certainly fully mean to say, that a considerable fleet went to India, but not till the Romans were masters of Egypt; and whether they performed the whole voyage, or only to Arabia for Indian commodities, is a question. If we suppose them to reach the mouth of the

Indus, it is the full extent that can be required; for Ptolemy expressly says, that the ports on the coast of Malabar were only beginning to be known in his age. In what way they sailed previous to the Periplūs will be noticed in its proper place.

to that commerce, and that Memphis rose from the same cause to the same pre-eminence. Cairo succeeded to both in wealth, grandeur, and magnificence; all which it must have maintained to the present hour, if the discoveries of the Portuguese had not changed the commerce of the world; and which it does in some proportion still maintain, as a centre between the east and the Mediterranean. The essential difference between these three capitals and Alexandria, proves past contradiction, the different spirit and superior system of the Greeks. These three capitals were inland for the sake of security: a proof that the natives never were navigators or sovereigns of the sea. The Greeks were both; and the capital of the Ptolemies was therefore Alexandria. Their fleets were superior to all that had ever appeared on the Mediterranean; and the power of their kingdom such, that nothing but a succession of weak and wicked princes could have destroyed it. While Egypt was under the power of its native sovereigns, Tyre, Sidon, Aradus, Cyprus, Greece, Sicily, and Carthage were all enriched by the trade carried on in its ports, and the articles of commerce which could be obtained there and there only; the Egyptians themselves were hardly known in the Mediterranean as the exporters of their own commodities; they were the Chinese of the ancient world, and the ships of all nations, except their own, laded in their harbours.

The system of the Ptolemies was exactly the reverse. Alexandria grew up to be the first mart of the world, and the Greeks of Egypt were the carriers of the Mediterranean, as well as the agents, factors, and importers of Oriental produce. The cities which had risen under the former system, sunk silently into insignificance; and

so wise was the new policy, and so deep had it taken root, that the Romans, upon the subjection of Egypt, found it more expedient to leave Alexandria in possession of its privileges, than to alter the course of trade, or occupy it themselves. Egypt, in strict propriety, was never a Roman province, but a prefecture, governed, not by the senate but the emperor himself. No pretor or proconsul ever had the command; no man above the equestrian order was ever prefect; no Roman¹²⁰ ever entered the country without the express licence of the emperor. These circumstances are particularized to shew the wisdom of the Greeks in their establishment of the system, and the wisdom of the Romans in contenting themselves with the revenue, rather than the property of the country¹²¹. This revenue, amounting to more than three millions sterling, they enjoyed for more than six hundred years¹²²; and till the moment of the Arabian conquest, Alexandria continued the second city of the empire in rank, and the first, perhaps, in wealth, commerce, and prosperity.

These considerations are by no means foreign to our purpose: it is the design of this work to exhibit the trade with India under

¹²⁰ One charge brought against Germanicus by Tiberius, was his going into Egypt without permission.

¹²¹ It does not appear that any Roman in Egypt was allowed to engage in commerce. In the early part of their government at least, all the names we meet with in the trade of the Red Sea, Africa, and India, are Greek: Arrian, Dionysius, &c. &c.

¹²² It is the stability of the Roman conquests which distinguishes them from those of other nations. If we place the meridian power of Rome in the age of Augustus, it was 700 years in rising, and 1400 years in falling. The sovereignty of Egypt, for 600 years, is of greater duration

than that of any native or foreign dynasty not mythological; and this sovereignty, notwithstanding particular intervals of tyranny, does seem upon the whole to have been exercised for the good of the people, which is the end of all government. When Egypt fell, its prosperity, though impaired, was probably superior to that of any other province of the empire. The revenue I take at a medium from the calculation of Strabo, who says, that under Auletes, the worst of the Ptolemies, it was 2,421,875 l.; but he adds, that the Romans managed it to much greater advantage, and even doubled it. Strab. lib. xvii. p. 798.

every point of view in which it was regarded by the ancients; but if it were not my determination to close my researches with the voyage of Gama, I could now shew how a contrary policy has brought the richest country in the world to its present state of misery. Policy, I say, because, though the discovery of Gama must have injured Egypt, it could not have reduced it to desolation. It is the conquest of Selim, and a divided power between the Porte and the Mameluks, which has sunk a revenue of three millions to a cypher¹²³; a policy, in fact, which has cut down the tree to come at the fruit, which is not content with the golden egg, but has killed the bird that laid it¹²⁴.

¹²³ There is a tribute paid by the Mameluks to the Pacha of Egypt, but it never reaches Constantinople, as there are always charges to set off against it.

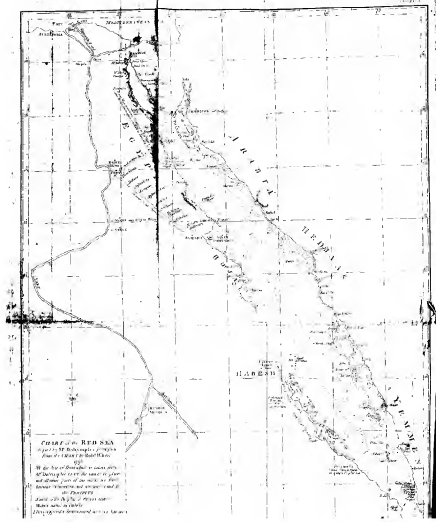
¹²⁴ Exception, perhaps, may be taken to what has been said in regard to the Egyptians never appearing in the Mediterranean as a naval

power. The expression is meant to apply to that country only while under its native sovereigns. As subject to the Persians, Macedonians, and Romans it furnished large fleets. This restriction, omitted in its proper place, the vacancy of the present page allows me to insert.

The names of places will be distinguished by capitals in the margin; in which form the Greek sound and Greek orthography will both be preserved. The Latin or modern orthography will be followed in the text, to avoid the appearance of singularity.

Marks of tones.

- ' The accent, as Azánia.
 - ` The note when e final is pronounced long or short, as Calpè.
 - ^ The note of a long vowel or diphthong in the Greek, as Opônè, Nêssa, Nilotolemèon, Kuenion.
-



GULF OF THE RED SEA
 Scale 1:50,000
 (See also the Chart of the Red Sea)

If the depth of soundings in meters, the depth of the water in fathoms, is given, the latter is given in italics, and the former in plain type. The latter is given in plain type, and the former in italics. The latter is given in plain type, and the former in italics. The latter is given in plain type, and the former in italics.

THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A.

B O O K I I.

Introduction. — I. *Myos Hormus.* — II. *Berenicè.* — III. *Inland Navigation to Coptus.* — IV. *Ptolemæus Therôn.* — V. *Adûli, Abyssinia.* — VI. *Diræ, Straits of Bab-el-Mandeb.* — VII. *Abalitès.* — VIII. *Maláo.* — IX. *Múndú.* — X. *Mofyllon.* — XI. *Niloptoleméon.* — XII. *Marts, Tapatégè, Daphnóna Micron, Elephas Prom. Rivers, Elephas, Daphnóna Megan, or Acannai.* — XIII. *Tabai.* — XIV. *Opénè.* — XV. *Apócopa.* — XVI. *Little Coast, Great Coast.* — XVII. *Serápíon, Nicón, Seven Rivers.* — XVIII. *The New Canal or Mombaça.* — XIX. *Rhapta, or Quíloa.* — XX. *Menúthéftas, or Zanguebar Islands.* — XXI. *Prasum of Ptolemy.* — XXII. *Menúthias of Ptolemy.* — XXIII. *Limit of Ancient Discovery.* — XXIV. *Heródotus.* — XXV. *Ptolemy.* — XXVI. *Discoveries of the Portuguese, Covilham, Marco Polo.* — XXVII. *Voyages of Diaz and Gama.* — XXVIII. *Arabian Settlers Ancient and Modern on the Coast of Zanguebar.*

“ Orientalem oram Africæ fulcavit Auctor Periplus, cujus auctoritas majoris est
 “ facienda quàm cæterorum omnium, utpote qui solus veritati consentanea
 “ scripserit.” Vossius ad Melam. p. 595. ed. Varior. Lugd. 1722.

THE object proposed for consideration in the second book is the navigation of the ancients from Myos Hormus in the Gulph of Arabia, to the Promontory of Rhaptum¹ on the coast of Africa. Myos Hormus lies in the twenty-seventh degree of northern latitude, and Rhaptum will be fixed near ten degrees to the southward of the equator; consequently we have a space of above two thousand five hundred miles to examine, involved in such obscurity, that without recourse to modern discovery, the navigation of the ancients is inexplicable.

The Periplus, which has been assumed as the basis of our disquisition, has a claim to this preference, not only as the most ancient but the most specific account extant; for notwithstanding particular places may have been noticed in treatises of a prior date, the line of coast which it embraces is to be found no where previously in detail; and the circumstances which it particularizes bear such a stamp of veracity, as to assure us, that if the voyage was not performed by the writer, it is at least delineated from authentic documents.

¹ Ptolemy writes both Rhapta and Rhaptum, the Periplus always Rhapta, plural.

I. The survey commences from Myos Hormus¹, a port chosen by Ptolemy Philadelphus for the convenience of commerce, in preference to Arsinoë or Suez, on account of the difficulty of navigating the western extremity of the gulph.

Μύος
Ὁρμῶς.

The name of this port shews its origin to be Greek: it signifies the harbour of the Mouse; an appellation which it afterwards changed for the harbour of Venus. But the former is the more prevalent, and the latter is recorded by Agatharchides only and his copyists. Its situation is determined by three islands, which Agatharchides mentions; known to modern navigators by the name of the Jaffateens, and its latitude² is fixed with little fluctuation in $27^{\circ} 0' 0''$, by d'Anville, Bruce, and de la Rochette. The presumption in favour of de la Rochette's accuracy is natural, as he had the charts and journals of several English navigators before him, and the position of the islands³ with the indenture of the coast, is such as would sufficiently correspond with what the ancients called a port. Strabo describes the entrance as oblique⁴, which was perhaps effected by the site of the island at the entrance; and he notices that the ships which sailed from Berenicè lay at this port till their cargoes were prepared.

II. The same reason which induced Philadelphus to form the port of Myos Hormus, led him afterwards to the establishment of Berenicè,

Βερενίκη.

¹ De la Rochette has made two ports of the Myos Hormus and Aphroditis Hormus of Strabo, but they are both the same, if Strabo is to be interpreted by Agatharchides, whom he copies; his translator indeed says, *Muris flatio aliique Veneris*, but the text does not require the distinction. See Hardouin, not. ad lib. vi. Plin. cvi. The Myos Hormus of de la Rochette I should prefer for the true position.

² Ptol. $27^{\circ} 15' 0''$, $27^{\circ} 8' 0''$, by de la Rochette.

³ Περὶ τῶν ἰσθμῶν καὶ τῶν νήσων τῆς Ἰνδίας. Strabo, xvi. 769. The Jaffateens are more than three; but the smaller ones are perhaps little more than rocks above water.

⁴ Λιμένα μίγαν, οὗ ἰσθαίου ἔχοντα σκολίαν. Strab. *ibid.*

with

with this additional motive; that being in a lower part of the gulph, it facilitated the communication with the ocean, or the coast of Africa, and lay more convenient for taking advantage of the regular winds within the straits, or the monsoons in the Indian ocean. The plans of Philadelphus, indeed, seem to have been larger than either he or his successors carried into execution: he had evidently sent travellers to penetrate into the interior by land, while his fleet was exploring the coast. Pliny mentions the names of Dálion, Aristócreon, Bion and Báfilis⁶, as visitors of Ethiopia; and Simónides as residing five years at Meroë; while Timóthenes⁷ went down the coast as far, perhaps, as Madagafcar, but certainly lower than the fleets of the Ptolemies traded⁸, or the Roman fleets in the age of the Periplus. The account of Agatharchides, who lived in the reign of Philométor, goes no lower on the western side of the gulph than Ptolemáis Thêrôn; and in his time the commerce seems so generally to have settled at Myos Hormus, that no mention of Berenice occurs in the whole work⁹. Under the successors of Philométor, this

⁶ Plin. lib. vi. c. 35.

⁷ There is some reason to hesitate in giving credit to Timóthenes, as he says the Red Sea is two days sail across and *four days* sail in length. Plin. lib. vi. Four days (if it be not an error of Pliny's) cannot by any means suffice for a course of nine hundred miles. See Fragm. Artem. Hudson, vol. i. p. 88.

⁸ This is similar to what has happened relative to our own discoveries. Sir F. Drake explored the western coast of America, to the north of California, where no navigator followed him till almost 200 years after, when the English, Russians, and Spaniards have interfered with each other in Nootka Sound. In the same manner also the Carthaginian

commerce on the coast of Africa settled at Cernè, though Hanno had gone much farther to the south.

⁹ Neither does Diodorus notice it, who wrote, perhaps, early in the reign of Augustus, and followed Agatharchides. But Strabo is diffuse; and he adds one particular which may account for the silence of Agatharchides, which is, as we have just noticed, that Berenice, though a station, was no port. The harbour was at Myos Hormus; and the ships lay there till they came to Berenice for their lading. The Periplus also seems almost to join the two together, at the commencement of the Arabian voyage.

trade languished rather than increased, nor was it reinvigorated till the conquest of Egypt by Augustus.

The connexion between Myos Hormus and Berenice, from which ports the navigation commenced, requires more consideration than has been bestowed upon it by those who have preceded me in the inquiry.

Berenice, according to the Periplus, was distant eighteen hundred stadia from Myos Hormus, which, if the author reckons ten stadia to the Roman mile, (as d'Anville supposes) amounts to one hundred and eighty; or if he reckons eight, we obtain two hundred and twenty-five miles, for the interval between the two ports; both estimates are too short, as the distance from the northern Jaffateen to Ras-el-anf¹⁰ is little less than two hundred and sixty miles Roman. Without insisting upon this, Ras-el-anf is the leading point to fix Berenice, for this is the Leptè Promontory of Ptolemy, on which Berenice depends. "The land here," says Bruce, "after running in a direction nearly N. W. and S. E. turns round in shape of a large promontory, and changes its direction to N. E. and S. W. and ends in a small bay or inlet." Now this agrees exactly with the position assigned to Berenice by Strabo, in the very inmost recess of his Sinus Impurus. It may seem extraordinary¹¹, that the name of Foul Bay¹² should appear in our modern charts in this very spot,

¹⁰ Cape Nofe.

¹¹ From the appearance of Foul Bay, on de la Rochette's chart, I conclude it to be a modern nautical name. Its correspondence with the ancient Sinus impurus is confirmed by d'Anville as well as de la Rochette. See his *Golfe immonde*. And if this is established, Strabo's expression, ἐπίθω τῷ κόλῳ, in the inmost recess of the bay, ought, in my opinion, to determine the question.

¹² *Αυθόητος* is rendered improperly by *impurus* and *immonde*. It is literally both here and in the Periplus, p. 12. what we should call in English Foul Bay, from the foulness of the coast, shoals, and breakers. *Αυθόητος* ἕλκετος. . . ἔστιν ἀυθόητος ἐπὶ τῷ κόλῳ, ἡχέριαι καὶ βεβήλαι, ἰσχυροὶ ἄγκυρας καὶ ἀνεμοὶ καταρυσσόμενοι τὸ κολῶν, ἡχέριαι δὲ ἀπὸ τῶν ἰσχυρῶν αἰῶνα ἐν βίῳ τῷ κόλῳ. Strabo, lib. xvi. p. 769.

and marked with the shoals and breakers which entitled it to the same appellation in the time of Strabo. But such is the fact, and de la Rochette's chart¹³ gives us a small anchorage or inlet in the very bottom of the bay, which he styles *Minè*, or *Belled el-Habesh*¹⁴, the port of Abyssinia. These circumstances are farther corroborated by the chart which Mercator extracts from Ptolemy, and by Ptolemy's own distances in longitude and latitude from *Leptè*. Col. Capper¹⁵ has supposed that the site of *Berenicè* cannot be determined, and d'Anville has placed it nearer to *Leptè*; but in this, it is probable he was determined by the latitude of *Syènè*, for both are supposed to be tropical, and Col. Capper has possibly not applied his superior information to this object. I fix it at the port of *Habesh*, not from latitude, but local relation. For *Syènè* is in latitude $24^{\circ} 0' 45''$, and this port is in $23^{\circ} 28' 0''$, according to de la Rochette. If then we were to be determined by the tropick, the port of *Habesh* is more tropical than *Syènè*. But the ancients were by no means accurate in these coincidences. *Meroè* and *Ptolemáís* are still less reconcilable than *Berenicè* and *Syènè*; and yet the respective correspondence of the four places was admitted. I am much more led by existing circumstances than these estimates: a coast falling in, as described by the original voyagers, and a port found at the termination where it ought to be, tend more to ascertain a position when ancient accounts are to be considered, than astronomical calculation. But I do not assert the identity, I know the difficulties, I know that the *Topaz* island of Strabo is

¹³ D'Anville has the same, and Bruce the bay.

¹⁴ *Minè* and *Belled* both signify a fort or

castle. The principal Mameluk at Cairo, is styled *Sheik-el-Belled*, the sheik of the castle.

¹⁵ Page 57.

dubious¹⁶, but as a choice is necessary, I select the port of Habesh for Berenicè, and I trust the solution of the problem to further inquiry.

Both from Myos Hormus and Berenicè, the fleets sailed for Africa and Arabia in the month of September; and for India in July¹⁷; dates which agree admirably with the regular winds, as stated by Bruce. For, in the first instance, if they cleared the gulph before November, they in that month fell in with the wind, which carried them down the coast of Africa, and which served them to return in May. And in their voyage to India, sailing in July, if they cleared the gulph before the 1st of September¹⁸, they had the monsoon for nearly three months to perform the voyage to the coast of Malabar, which was generally completed in forty days.

III. But before we enter upon our navigation we must examine the previous preparations in Egypt, commencing our inquiries from Alexandria, the head and centre of all the commerce between India and Europe for seventeen centuries¹⁹.

¹⁶ There was a Sapphire, an Emerald, and a Topaz island in the Red Sea; all three give rise to much fable and much uncertainty. Strabo's Topaz island is the same as this Serpentine. Whether both names ought to relate to the island at Ras-el-anf, I cannot say. That island is the Macouar of Bruce; the Emil or Emerald island of de la Rochette, the Insula Veneris of Ptolemy. Strabo's Topaz island is lower than Berenicè. It may be the modern Zemorgete, the Agathonis Inf. of Ptolemy, but the confusion is endless.

¹⁷ See Periplus, p.p. 5, 13, 29, 32. The

author mentions the Egyptian as well as the Roman months Tybi, January; Thoth, September; Epiphi, July. A proof that he was a resident in Egypt if not a native, and that he wrote for the traders in that country.

¹⁸ This is fixed to a certainty by Pliny, who says, they sailed at the rising of the Dog-Star, July 26, and reached Okelis in thirty days, from whence to Muziris the voyage is usually performed in forty days. Lib. vi.

¹⁹ Eighteen, reckoning from the death of Alexander.

The principal merchants, who carried on this commerce both under the Ptolemies and the Romans, resided at Alexandria; and though the Ptolemies, for their own interest, might allow others to employ their capital in this trade, and the Romans certainly would not suffer themselves to be wholly excluded, still the standing law of the country was, that every merchant must employ an Alexandrian factor for the transaction of his business; and this privilege alone, with the profits of the transport, is sufficient to account for the immense wealth of the metropolis²⁰, exclusive of all other advantages.

In the latter end of July the annual or Etesian wind commences, the influence of which extends from the Euxine Sea to Syênè in Upper Egypt. Blowing from the north it is directly opposite to the course of the Nile, and prevailing for forty days while the river is at the height of its swell, it affords an opportunity of advancing against the stream, with more convenience than other rivers are navigated in their descent. With the assistance of this wind, the passage from Alexandria up to Coptus was performed in twelve days, which, as the distance is above four hundred miles²¹, sufficiently proves the efficacy of the wind that carried them.

Two miles from Alexandria, says Pliny, is Juliopolis, where the navigation to Coptus commences; an expression not very intelligible without the assistance of Strabo. For why should he mark the departure from Juliopolis rather than Alexandria? Strabo informs us, that the vessels navigated a canal, which extended from Alex-

²⁰ The revenue of Alexandria, in the worst of times, was 12,500 talents, equal to 2,421,875l. sterling. Strab. xvii. 798. ²¹ Three hundred and eighty, without allowing for the sinuosity of the river.

andria to the Canôpic branch of the Nile, at the junction of which was Schédia; here all the duties were collected on goods which passed upwards into Egypt, or down the Nile to Alexandria. This canal²³ in its course almost touches Nicopolis²⁴, (a city so called from the victory obtained here by Augustus over the forces of Antony,) and which, by its distance of thirty stadia²⁵, must be the Juliopolis of Pliny. It is probable, therefore, that before the time of Pliny, the Custom-house had been removed from Schédia to this place.

It is then by the Canôpic branch, now almost neglected, that vessels passed up to Memphis, and thence to Coptus. Coptus was a city in the age of Strabo who visited it, common to the Arabs²⁶, as well as the Egyptians; it was not actually on the Nile, but connected with it by a canal, and was the centre of communication between Egypt and the Red Sea, by a N. E. route to Myos Hormus, and a S. E. to Berenice. Upon reference to the map the reason of this is evident. The river bends here towards the east, and in proportion to its inclination shortens the distance of land carriage. Coptus is seated almost in the centre between Ghinnè and Kous. Ghinnè is the ancient Kænè²⁷, and is the modern point of

²³ This canal has still water in it during the inundation, and boats pass.

²⁴ See Dion. Cassius, lib. ii. p. 280. Lat. ed.

²⁵ Strabo, lib. xvii. p. 795.

²⁶ The present government of Egypt is divided between the Turks, the Mamelukes, and the Arabs. The Turks, though sovereigns, have the least share. The Mamelukes have twenty-four beys, nominally dividing the whole country from the sea to Syène, all-

powerful at Cairo, but never complete as to their number in the country, and sharing their influence with the Arab sheiks. The Roman government was firm and imperious, but even under that, as appears from this passage of Strabo, the Arabs found means to insinuate themselves into a share of the power at Coptus, and, as we may from this circumstance conclude, possibly in other places.

²⁷ *Kænè* *ωβελ*, Neapolis, or the new city, by its name evidently of Greek extraction.

communication with Coseir²⁷; the port on the Red Sea, where the little commerce which remains is carried on between Upper Egypt and Arabia. Kous arose in the middle ages from the same cause, and became the principal mart of the Said²⁸. These three places all lie on the same curvature of the river, and all grew into importance at different periods, from the same cause; the necessity of conducting land carriage by the shortest road.

It has been already noticed, that notwithstanding Berenicè was built by Philadelphus, the route of the caravan thither, and the port itself were little frequented, as long as the Ptolemies reigned in Egypt. The first mention I can find of it is in Strabo, and he visited the country after it was under the power of the Romans. The Romans saw what Philadelphus had designed, and they had the penetration, from their first entrance into the country, to reap the advantages which his successors had neglected. In the course of six or seven years an hundred and twenty ships sailed from this port for India²⁹; these, indeed, were but a small part of the whole.

²⁷ Irwin reckons one hundred and fifteen miles from Coseir to the Nile, vol. i. p. 234. Brown rode it on dromedaries in three days.

²⁸ D'Anville, Geog. Anc. vol. iii. p. 33.

²⁹ It has everywhere been supposed, that single ships did sail both to India and Africa by coasting, previous to the discovery of Hippalus; it has everywhere been allowed that the Arabians traded to India, and the Indians to Arabia, and probably with a knowledge of the monsoon. But this passage of Strabo's stands alone as an evidence, that a fleet sailed from Egypt directly to India. If it did sail, it must still have coasted the whole way. But might not Strabo, from knowing they brought home Indian commodities, have supposed that they sailed to India, when in reality they went no farther than Hadramant in Arabia, or Mofyllon on the coast of Africa; where they found the produce of India?—

I do not approve of contradicting the assertion of any intelligent author, such as Strabo; but I recommend it to the consideration of better judges, whether a circumstance of this magnitude ought to be established on a single passage. It is also to be noticed, that Arabia was sometimes called India by the ancients, not from error, but because it was on the other side of the Red Sea, and because the commodities of India were found there. So Indorum promontorium in Juba, the same as Leptè Acrè is Ras-al ans, whence the trade to India commenced. Indos Juba vocat Æthiopoulos, Troglodytas. Hardouin, not. ad Plin. vi. 34, but Hardouin is mistaken, and probably Juba. It is the Indian Cape and Port, so called from the Indian trade at Berenicè. In what sense the fleets sailed from Egypt to India, will be considered at large in the fourth book.

The bulk of the trade still passed by Coptus³⁰ to Myos Hormus; and continued in the same course till the period in which the *Periplus* was written; this is the principal reason which induces me to believe that the *Periplus* is prior to Pliny, and assign it to the reign of Claudius, or Nero; for Pliny is the first that specifies the stages of the caravan, or gives us reason to believe that Berenicè was the grand centre of commerce. That it was not so when the author of the *Periplus* wrote is evident, because he commences his route from Myos Hormus³¹, a proof that he considered it as the first port of departure.

Pliny on the contrary never mentions Myos Hormus in the passage where he details the voyage to India³², nor does he notice it at all, except once incidentally, where he is describing the western coast of the Red Sea³³. A proof that it was as subordinate in his time, as it had been pre-eminent before.

Every detail that is now extant, of the road from Coptus to Berenicè, is Roman; as that of Pliny, the Itinerary of Antoninus, in the Peutingerian tables, and the anonymous geographer of Ravenna³⁴. There is no Greek account of it extant but Strabo's, and he visited the country after the Romans were in possession. His information, therefore, is Roman³⁵; it specifies particulars of which other Greeks were ignorant; but it falls short of what the Romans relate themselves. He mentions only that

³⁰ Ἀλλὰ τὴν ἑ Κορινθίαν καὶ ἡ Μυσορμῶνος Ἐυδαμῆα καὶ χερσονῆσιν τοῖς πλείοσι τόποις. Strab. lib. xvii. p. 815. See a very remarkable passage in Ptolemy, lib. i. c. 7.

³¹ Whether Myos Hormus and Berenicè may have been comprehended in the mention of one as conjectured above, must remain a

doubt, as there are no circumstances to ascertain it.

³² Lib. vi. c. 26.

³³ Lib. vi. c. 33.

³⁴ Lib. ii. p. 755. in ed. Var. Pomp. Mcla.

³⁵ Lib. xvii. p. 815.

Philadelphus opened this route with an army¹⁵, and that as it was without water, he established posts¹⁶, both for the convenience of those who travelled this way on business, and those who conveyed their goods on camels.

If it should be thought that this is said from any desire of amplifying the industry or penetration of the Romans, let it be observed, that Augustus reduced Egypt into a province, in the year 30 before the Christian era, and that in less than six years Petronius had penetrated into Ethiopia, and reduced Candacè queen of Meroë or Atbara; that Elius Gallus had been sent into Arabia with the same view of extending the knowledge and power of the Romans; and that the fleet sailed from Berenicè instead of Myos Hormus. These transactions Strabo relates as an eye-witness, for he accompanied Elius Gallus to Syéné. And in the interval between the conquest of Egypt and the reign of Claudius, a period of 71 years, there is every reason to suppose, that a province so productive, and a commerce so advantageous, had never been neglected. But it was not till the discovery of the monsoon; which we place in his reign, that all the advantages of Berenicè would become obvious. This would by degrees draw the concourse from Myos Hormus; it had not operated essentially in the age of Strabo; the change was beginning to be felt when the Periplus was written; it was fully effected in the time of Pliny.

¹⁵ The road between Coptus and Myos Hormus he describes more particularly. A proof that it was better known. It was seven or eight days journey, formerly performed on camels in the night by observation of the stars, and carrying water with them. Latterly very deep wells had been sunk, and cisterns formed for holding water, as it sometimes, though rarely, rains in that tract. Lib. xvii. 815.

¹⁶ *Strabonè* or *salubè*: Diverforia, Caravanferais.

The annexed table, compared with the map, will now shew all that is necessary to be known, better than narrative; and as it is obvious that the names are Greek, we must suppose that they are such as were first given, upon opening the communication by Ptolemy, however unnoticed by the Greek writers; or that the Greeks of Egypt were employed by the Romans in forming the establishment. The mention of the Troglodytes agrees with their history, as it has been admirably illustrated by Bruce; they are the Shepherds so much noticed in the early history of Egypt, who every year conduct their flocks and herds from the plains of Ethiopia, across the mountains of the Red Sea, to avoid the fly, that scourge of their profession. They have done this in all ages; they do it to the present hour; their habitation is consequently temporary, and if they found caves²⁷ or hollows in the rocks, these they would occupy, as their name implies. Tribes of this kind also are naturally plunderers, and the guard necessary to defend the caravan in passing their country, is correspondent to the circumstances of their profession and situation. If we add to this the passage of the mountains, evidently marked in Pliny, we have all the particulars that Bruce enumerates; and an evidence of that range, which he has depicted as extending parallel to the coast, from the sea of Suez to the main of Africa. Below this range there seems to be a level towards the sea like the Tchama of Arabia, and the Ghermesir on the Gulph of Persia; and I conjecture that

²⁷ Bruce found Troglodytes actually living in caves in Gojam; he saw these caves in Upper Egypt, and the herds passing at Senaar.

Tifebárikè²⁵, the name which the Periplûs gives to the tract in the neighbourhood of Berenícè, expresses this very level, and corresponds with the Tehama of Arabia.

I have already noticed that Berenícè lies nearly in latitude 24°, and have now only to add, that by the concurrent testimony of the Periplûs and Strabo, the anchorage was a bay and a road, but not an harbour.

²⁵ Teez-n-bareek is said by Capt. Francklin, author of a Tour in Persia, to be still a familiar phrase in the Persick for *sharp* and *thin*. It will also bear the sense of *low* and *flat*, and in that sense he supposes it applied to the

low country on this coast. Mr. Jones interprets Bareek in the same manner on the coast of Persia, as Gezirat al Bareek, the Low Island. Stuckius reads, Γῆ Ἀρελικὴ, for Τερελικὴ. See Stuckius and Hudson, Geog. Min. Peripl. p. 1.

STATIONS

BETWEEN COPTUS^a AND BERENICE^b.

(N. B. the Numbers are resuscitated by the Commentator.)

To face page 82.

stations.	PLINY.	Miles.	Var. left.	PEUTINGER.	Miles.	Var. left.	ITINERARY	Miles.	
I.	Hydruntum, or Hydruntum.	XXXII.	32	XXXII. ^a Phœnice.	XXII.	22	XII. Περνικουπόλιον [^b Περνικὸν ἄστυ γέγονε].	XXVII.	27
II.				^a Aphroditos [Κόμης].	XXIV.	24	Dihyme [Κόμης].	XXIV.	24
III.	In monte, a day's journey.	XXXII.	32	^b Didymon.	XX.	20	Affodito [i. e. Αφροδίτας Κόμης].	XX.	20
IV.	Hydruntum, 95 miles from Coptus.	XXXI.	31	Compsadi [90 miles from Coptus].	XXV.	25	XV. Compsadi.	XXII.	22
V.				Dios [Κόμης].	XXII.	22	Ipsis [Κόμης].	XXIII.	23
VI.	In monte, a day's journey.	XLIV.	44	Xerou [without water].	XXIV.	24	^b Arifonitis [Κόμης].	XXV.	25
VII.				^b Phylacton [σάββατον ἀστυς].	XXIV.	24	Palatro [σάββατον].	XXV.	25
VIII.	Hydruntum Apollinis, 184 miles from Coptus.	XLV.	45	Apollonos [Κόμης] [184 miles from Coptus].	XXIV.	24	Apollonos, [Κόμης].	XXIII.	23
IX.	In monte, a day's journey.	XXV.	25	Cabau.	XXVII.	27	Cabali [Cabalini, d'Anville].	XXVII.	27
X.	Novam Hydruntum, 254 miles from Coptus.	XXV.	25	^c XXX. Kenon Nidreuma, [Καὶνὸν Ἰδρυμα], [25 miles from Coptus].	XXIV.	24	Kanos Nidreuma [Καὶνὸν Ἰδρυμα].	XXVII.	27
XI.	Troglodyticum Hydruntum, a guard.	IV.	4	VII.					
XII.	Berenice, 258 miles from Coptus.	XX.	20	Persicida portum [Berenicid portus].	XXII.	22	^b Berenice.	XVIII.	18
		258				258			208

REMARKS.

Pliny acknowledges, that though his names but nine stations, twelve days are employed in this journey; and the caravan moves chiefly in the night. Thus his three first stages are four days journey; his two next four days; and his four last ought to be three; for Peutingar and the Itinerary make eleven days journey. And, perhaps, one ought to be added to all as Phylacton; for the guard was possibly to exceed the others, as well as to proceed.

By Pliny's account the guard was a protection against the Troglodytes on the coast. Convenience required it, perhaps, to be moved inland, in a later age.

^a Dihyme precedes Aphroditis in the Itinerary. A proof that the transposition of names of Stations is so unusual error even in authentic documents.

^b The guard, according to Peutingar and the Itinerary, is on the pas-

sage of the mountains. According to Pliny, twenty miles only from Berenice. Different causes might operate to make the change in different times. The Troglodytes, always robbers, might change their haunts. The fort for the guard was two miles out of the road, in Pliny's account. See Strabo. lib. xvi. De Ithyopis et Æthiopicis.

^c Coptus is not on the Nile, but at a small distance, with a canal from the river, in latitude 25° 50', twelve or fourteen miles from Koen, Kome, Ghinea, from whence the caravan passes at this day to Caffir, by a much shorter route. This route is nearly the same as the ancient one to Myos Hormos. See Bruce, Itin. vol. i. 524.

^d CCXXV, a corruption of CCXXX, CCXXXII, or CCXXXIV, all which occur.

^e σάββατον ἄστυς? Query.

^f Arifonitis. An Arifon is mentioned by Diocorus as first to survey

the Gulf of Arabia to the ocean. Diod. lib. iii. 209, ed. Wef. Salmâsus. Fin. Et. 214g.

^g Berenice and Persicida, natural or commercial corruption of Berenice, a city so called from Berenice, mother of Ptolemy Philadelphus. Pliny, lib. 31.

^h Two hundred and fifty-eight miles. D'Anville's map gives two hundred and fifty in a right line, but query, whether it is not inaccurate? Berenice is under the same parallel as Syden, 24° 6' 45'. Coptus lies in 25° 50', it still exists at Kest.

N. B. The whole table, except the explanations between brackets, is in the original, as stated by Salmâsus, p. 114g.

The anonymous geographer of Ravenna published in the Var. edition of Meta but these names. Itin. lib. p. 755, with variations.

FROM BERENICÉ TO PTOLEMAÏS THÉRÔN OR EPITHÉRAS.

IV. SOUTH of Berenice, in the tract of low country between the mountains and the sea, called Tisebarikè, is the habitation of the Troglodytes, esteemed as Icthyophagi or Fish Eaters, who live in the clefts and caverns of the mountains, dispersed and independent. They are inclosed by more inland tribes, who are distinguished as Akridóphagi³⁹ and Moskhóphagi, titles which imply that their food is locusts and veal. A strange peculiarity! but as locusts are no uncommon food either on the coast of Africa or Arabia, so, perhaps, the latter distinction intimates a tribe that fed on the brinde⁴⁰, or flesh cut out of the living animal, so graphically described by Bruce⁴¹. These tribes are under the regular government of a king.

Below the Moskhophagi lies the little town of Ptolemáis Thérôn, so called from Ptolemy Philadelphus, who sent his hunters here to procure elephants for his army. Here the true shell of the land tortoise is to be procured. It is white⁴², with a small shell, and in no great quantity. The elephants also are small, like those obtained at Adûli.

³⁹ By a comparative view of these in Agatharchides, the site we should allot to them would be in Nubia or Sennar, or between those places and the mountains which line the coast.

⁴⁰ Perhaps the title of *Κριδοφάγοι*, which Strabo confers on this or some neighbouring tribe, is equivalent. See Agatharchides, p. 40. Hudson.

⁴¹ A passage follows which is imperfect. It seems to describe another tribe still more inland, and west of the Moskhophagi. Compare with Agatharchides, p. 36, et seq.

⁴² *Λευοὶ μικροτέραν τοῦ δέτρακος*, rendered by Hudson, Candidam minoribus testis præditam. See also Perip. p. 17, where this interpretation is confirmed.

This place has no port, and is approachable only by boats. It lies about four thousand stadia from [the harbour which is established for] the reception of such articles of commerce as are brought from beyond the straits⁴¹, that is from Berenicè. This distance agrees with Ras Ahehaz, or Ageeb, where d'Anville places it, if we reckon the stadia, as he does, ten to a mile. The cape is laid down in latitude $18^{\circ} 20'$, by d'Anville; $18^{\circ} 31'$, by de la Rochette; $18^{\circ} 10'$, by Bruce.

If this be true, the ancient geographers must be greatly mistaken, who place it under the same parallel with Meroè, to which they assign $16^{\circ} 25'$. This parallel is of great importance: it was traced by Eratosthenes to whom we owe the doctrine of parallels. And it is assumed by Ptolemy as a distinguished line both in regard to Syènè, and to the parallel of Prafum, which was the boundary of his knowledge, and which he lays down as many degrees to the south, as Meroè is to the north of the equator.

If then we could fix the position of Ptolemàis by reference to the parallel of Meroè, it would give consistency to the Periplus, in a passage where the measures are more difficult to reconcile than in any other part of the work, for according to de la Rochette

Mineh-Beled-el-Hbesb, or Berenicè,	is in lat.	$23^{\circ} 16' 30''$
Ras Ahehaz, or Ptolemàis	-	$18^{\circ} 31' 0''$
Mafua, or Adùli	-	$15^{\circ} 46' 0''$

⁴¹ Ἀρχὴν τῶν πηγῶν τῆς ἀνατολῆς, distans a principio signis. Hudson. Which cannot be true in any sense, for whether the beginning of the gulph be taken from the straits, as Hudson doubtless means, or from the sea of Spez, this distance cannot be reconciled. We have had frequent occasion to notice the expression, Τάραξον for Τὰ πηγά, τὰ πηγάς τῶν πηγῶν,

&c. which intimates generally any commodities brought from beyond the straits, but in the Periplus constantly the commodities of the Mosyllitic coast, or kingdom of Adal; and the port established for the importation or reception (ἀνατολῆς) of these commodities can be only Berenicè, the port immediately before mentioned.

which

which gives the distance from Berenice to Ptolemais three hundred and fifty-four Roman miles, and from Ptolemais to Adûli two hundred and twenty-five; making a deficiency upon the measures of the Periplûs of one hundred and twenty-one out of five hundred and seventy-nine, if we reckon ten stadia to the mile Roman. The distances are, four thousand stadia from Berenice to Ptolemais, and three thousand from Ptolemais to Adûli. It is this deficiency which has induced Mr. Gosselin⁴⁴ to carry the Adûli of the Periplûs to Assab, or Saba, contrary to the opinion of all former geographers, and contrary to the local circumstances of Adûli, so strongly marked by our author.

The removal of Adûli from Masua to Saba, and of Ptolemais from Ras Ahehaz in $18^{\circ} 31' 0''$ to $16^{\circ} 58' 0''$, are therefore mutually connected in Mr. Gosselin's system; and as this brings Ptolemais within thirty-two minutes of the parallel of Meroë, the whole would be reconcileable if we could make the measures of the Periplûs accord; but this is impossible⁴⁵; and here Mr. Gosselin is led into a great error, the cause of which I do not readily discover; for he says, that the Periplûs reckons from Adûli to the Straits of Bâb-el-Mandeb eight hundred stadia. This is another mistake; for the Periplûs marks the termination of these stadia at a very deep bay where the Æthiopian

⁴⁴ It was at the moment that this sheet was returned from the press for correction, that I received, by favour of Major Ouseley, Mr. Gosselin's work, *Recherches sur la Géographie des Anciens*, published in two volumes, at Paris, in 1798; and of which only a very few copies had at that time reached England. However we differ on the whole of the Periplûs, I was happy to find we agreed upon the subject of the circumnavigation of Africa, and I have reconsidered this

article of Ptolemais in order to advert to the points on which we differ. In regard to the remainder of my work, it was finally arranged and settled, and I can only notice our disagreement by a note inserted on some particular occasions. I have found no reason upon the whole to abandon the ground which I had taken.

⁴⁵ See Gosselin, *Recherches*, tom. ii. p. 196 et seq.

stone is found⁴⁶, and from that bay mentions expressly the commencement of the inclination which the coast takes to the east⁴⁷, and which it continues till it joins the straits: all this is true, if Adûli is fixed at Masûa, and false, if it is carried to Saba, or Assab. The Periplus, therefore, is consistent in its description, and inconsistent in its measures; and to which of the two the preference ought to be given, will hardly be disputed by those who know the little certainty of all numbers in a Greek manuscript, and how much all printed texts are corrected by circumstances before they can be made consistent.

The real position, therefore, of Ptolemâis Thêrôn cannot be determined from these data; but if we relinquish the measures of the Periplus, and search for it by the parallel of Meroë, we meet with many curious particulars to compensate for the digression, and furnish means for the reader to determine for himself.

Meroë, as the first parallel of Eratosthenes, became an object of the greatest importance to all the geographers and astronomers who succeeded; and if there is any one point more than another upon which we can suppose them to have searched for accuracy or acquired it, it is this. Ptolemy places it in $16^{\circ} 24' 0''$; or, as it appears in his tables⁴⁸, $16^{\circ} 25' 0''$; but in his eighth book, he says, the

⁴⁶ Periplus, p. iii.

⁴⁷ Ibid. p. v.

⁴⁸ The text stands $\gamma\epsilon. \gamma\epsilon. \iota\alpha$, which the Latin reads $15^{\circ} 26' 0''$; but it is $16^{\circ} \frac{2}{3} = 20^{\circ} \frac{1}{3} = 5$, that is, $16^{\circ} 25' 0''$. The ancient geographers thought, if they approached precision within one twelfth of a degree, or five minutes, it was sufficient; they have therefore no more minute

division into seconds; but if Meroë were in latitude $16^{\circ} 24' 0''$, the line would be drawn through $16^{\circ} 25' 0''$. This twelfth is expressed in the different copies of Ptolemy as $\iota\alpha$ or $\iota\alpha\alpha$, or $\iota\beta$; and $\iota\beta$ is supposed to be $\iota\alpha\alpha$ and $\iota\alpha\alpha\alpha$, that is, $\iota\alpha\iota\iota\iota\iota$, or one twelfth. But the commentators and editors are not agreed upon the form of writing or manner of explanation, though

the longest day at Meroë is thirteen hours, (which makes the latitude $16^{\circ} 24'$) and the sun is vertical twice a year, when he is distant (both upon his approach to the tropic and his return,) $45^{\circ} 20' 0''$, from the solstitial point. This statement of forty-five degrees must be older than Ptolemy; for Pliny mentions that the sun is vertical at Meroë forty-five *days* before, and forty-five *days* after the solstice, in which he seems to follow Philo⁴⁹, and then adds, that on these two days the sun is in the eighteenth degree of Taurus, and the fourteenth of Leo.

Now in this passage there are two errors; for first, forty-five *degrees* are not the same as forty-five *days*, as there are three hundred and sixty-five days in a year, instead of three hundred and sixty, which there ought to be, to make the two agree; and secondly, the place of the sun is mistated, both upon his approach and his return, for by a calculation of Mr. Wales's, with which he favoured me a few days before his death, it appears,

“ That the sun, *at this time*, is in the eighteenth degree of “ Taurus, forty-four days before the solstice, which would give “ $17^{\circ} 13'$ N. for the latitude of Meroë. And in the fourteenth

though they all interpret it one twelfth, or five minutes See lib. i. c. 10. *des Meroë*. . . . *τ. γ. ιβ.* the same which is written in the tables, *τ. γ. ια.* rendered by Montanus, *distant partibus æqualibus sedecim et tertia cum duodecima.*

⁴⁹ See Bruce, vol. iv. p. 540, and Strabo, lib. ii. p. 77. where mention is made of Philo, who wrote an account of the navigation into Ethiopia, [by the Nile,] and who mentions the vertical sun at Meroë forty-five days before the summer solstice. He is noticed as

remarking the shadows of the Gnomon, and agreeing with Eratosthenes. Some authority of this sort Pliny must have followed, as Ptolemy was posterior.

Pliny is reproached unjustly by Salmastius. *Plin. Ex. 424*, as saying that the sun is vertical for ninety days at Meroë. It will appear sufficiently from this statement that he makes no such assertion; and the mistake of Salmastius is reprehended by Vossius and Hardouin. See Vossius *ad Melam. cd. Varior.* p. 582. Hard. *Plin. lib. ii. c. 75 not. 17.*

“ of Leo, forty-six days after the solstice, which gives 16°
 “ $36'$ N.

“ Or again⁵⁰, if we take the other statement of Pliny, forty-five
 “ days before the solstice, the sun is in the seventeenth degree of
 “ Taurus, which makes the latitude $16^{\circ} 57'$ N. and forty-five days
 “ after the solstice, the sun is in the thirteenth of Leo, which
 “ gives $16^{\circ} 53'$ N.”

Since the communication of this statement, calculated only for the place of the sun at the present day, the bishop of Rochester has added to the many former kindnesses I have experienced from his friendship, and derived from his comprehensive view of the science, the following particulars:

“ Nothing is assumed by Ptolemy but what is strictly true, that at
 “ equal distances from the solstitial point, on one side and the other,
 “ the sun has equal declination. He gives us in this passage two
 “ distinct principles for determining the latitude of Meroë; the
 “ length of the longest day, and the distance of the sun from the
 “ solstitial point, when he culminates in the zenith of the place.
 “ The two principles agree sufficiently in the result, and the latitude
 “ which they give agrees with the latitude of Meroë, as deduced
 “ from other principles, and stated in other parts of Ptolemy’s
 “ works.

“ The distance of the sun from the solstitial point, when he cul-
 “ minated in the zenith of Meroë, he tells us was $45^{\circ} 20'$. The

⁵⁰ To Mr. Wales I was known only by the courtesy of literature; but such was his love of science, that I never consulted him without receiving every assistance that it was in his power to give. I insert this as his last favour, and not without a tribute of gratitude to the memory of a man, who was as excellent in private life, as an husband and a father, as he was eminent in the science he professed, the friend and companion of the illustrious Cook.

“ obliquity

“ obliquity of the ecliptick at that season of the year, *in the year of our Lord one hundred*, was $23^{\circ} 40' 50''$; the sun’s declination, therefore, at the distance of $45^{\circ} 20'$ from the summer solstitial point would be $16^{\circ} 24' 3''$ N. and so much was the latitude of Meroë; for when the sun is vertical at any place, the declination of the sun and the latitude of the place must be exactly equal.

“ But he tells us also, that the length of the longest day at Meroë was thirteen hours; and I find by calculation, that in this latitude of $16^{\circ} 24' 3''$, the longest day must be exactly twelve hours fifty-nine minutes and twenty seconds, wanting only forty seconds of thirteen hours.

“ Again, assuming thirteen hours for the length of the longest day, I find the latitude exactly corresponding to be $16^{\circ} 34' 27''$. But this confirms the conclusion from the former principles, notwithstanding the excess of $10' 24''$; because the phenomenon of a longest day of thirteen hours would certainly take place in a somewhat lower latitude, the day being lengthened, in all latitudes, several minutes, by the double effect of the horizontal refraction.”

Having thus established the latitude of Meroë upon Ptolemy’s principles, it will not be foreign to our purpose if we examine the measures in Strabo, according to the estimate of Eratosthenes; for notwithstanding all measures of this sort are precarious, still, when they come within a few minutes of coincidence, the approximation is more satisfactory than the disagreement offensive. The account stands thus :

The parallel through the Cinnamon country, which was the last parallel of the early geographers, is north of the equator	-	-	-	-	Stadia. 8800
The same parallel is south of Meroë	-	-	-	-	3000'
Therefore Meroë is north of the equator	-	-	-	-	11,800

Now Eratosthenes⁵¹ reckoned seven hundred stadia to a degree; and if we divide eleven thousand eight hundred by seven hundred, it gives for the latitude of Meroë $16^{\circ} 51' 34''$, differing from Ptolemy only $27' 34''$, which is an approximation the more remarkable as Ptolemy reckons five hundred stadia to a degree, and Eratosthenes seven hundred; and this circumstance may give rise to a conjecture, that Strabo had a map of Eratosthenes before him, and measured off these degrees from the parallels of that geographer, by the compasses, as we should do at the present hour⁵².

But we have another coincidence between the measures of Pliny and the observations, which is equally remarkable; for Pliny has preserved the report of two Roman centurions sent into Ethiopia by Nero, who reckoned eight⁵³ hundred and seventy-three miles from Syênè to the confluence of the Nile and Astáboras, and seventy from the confluence to Meroë⁵⁴. The former number we must exhaust by supposing that the centurions followed the winding of the river, which Pliny specifies; and upon the latter, where the distance is so small, there can be no material error; seventy Roman

⁵¹ Ἐὶ δὲ οἷς ἡ περιπέτεια ἕξαστα σταδία ἴσται τὸν μέγιστον τῆς γῆς κύκλου, ἴσται ἑπτακιστὸν σταδία ἵκανον τῶν περιπέτειαν. Strab. lib. ii. p. 32.

⁵² It is remarkable that this measurement by stadia, carried on to Syênè, and reckoning that place five thousand stadia north of Meroë places it in latitude $24^{\circ} 0' 0''$, which Bruce fixes by repeated observations in $24^{\circ} 0' 45''$.

⁵³ These numbers vary in the copies to eight hundred and ninety-two, and nine hundred and twenty eight, but with this difference we are not concerned at present. Bruce reclaims against them as carrying Meroë to Gojam; but if measured by the river, which is remarkably tortuous in this part of its course, the numbers are not too high.

⁵⁴ Pliny mentions the places which occur on each side the river in their progress to Meroë; and he adds, that these are very different from the names given by the Greeks, whom Ptolemy Philadelphus sent into the same country, and much fewer; this desolation, he observes, was not caused by the Romans, but by the previous wars between the Egyptians and Ethiopians. But as he mentions likewise, lib. vi. c. 34, 35, that the inhabitants on the Nile, from Syênè to Meroë, were not Ethiopians but Arabs, may we not conclude, that the cause of desolation was imputable to them in that age as it is at present? See Bruce, iv. 330, et seq.

miles then approach within five of a degree, which, as we have no ancient map to guide us, we may try by the scale of Bruce. Bruce had good instruments, and had been long practised in observation; but he was struggling for his life, and his observations must have been hasty: still as we have no better, and no traveller is soon likely to correct his errors if he is mistaken, we are entitled to use his statement till a better can be obtained. He fixes

Herbagia	14° 30' 0".	
Halfaia	15° 45' 54".	Long. from Greenw. 32° 49' 15".
Gerri	16° 15' 0".	
Chendi	16° 38' 35".	Long. 33° 24' 45".
Fifteen miles N. of the junction at Gooz, that is, the confluence of the Nile and Atlaborns	} 17° 57' 22" ⁵⁵ .	

In consequence of these observations Bruce places Meroë at Gerri, or very near it, as corresponding best with Ptolemy. And for the same reason he might have preferred Chendi, which differs but five minutes more. A queen reigning there, and the title of Hendaque, suggested to him the name of Candacè, and the queen of Meroë. But he had reason afterwards to conjecture that he found the remains of Meroë at a village called Gibbainy, for here he discovered ruins⁵⁶ which were evidently Egyptian or Ethiopick, and such as he had seen no where from the time he left Axum. He likewise found an island in the Nile called Kurgos by the natives: and such an island, which served for a port to Meroë, Pliny mentions by the name of Tadu⁵⁷. These circumstances are so connected, that if it were

⁵⁵ By repeated observations of the sun and stars, made for several succeeding days and nights. Bruce, vol. iv. p. 537.

⁵⁶ Vol. iv. p. 538. Broken pedestals designed for the statue of the dog, pieces of

obelisks, hieroglyphicks. The Arabs mentioned statues of men and animals, all of black stone.

⁵⁷ Ipsum oppidum Meroen ab introitu insule, [i. e. a loco ubi conflunt Nilus et Atlaborns,] abesse LXX milia passuum. Juvensque

were not carrying the latitude too far north, we might prefer his conjecture to his position of Meroë. There is yet another fact still more appropriate; for if his observations are accurate, and he has placed the confluence of the two rivers exact, the distance from the confluence to Gibbainy measures upon his map as precisely fifty minutes as possible; an approach so near to the seventy Roman miles of Pliny³⁸, that no greater accuracy can be required. It is true that this correspondence will depend on the correctness of Bruce's observations; but if they are faulty, who shall be the traveller to correct them? It is true also, that Bruce's latitude of Gibbainy is $17^{\circ} 4' 0''$, which is forty minutes to the north of Ptolemy's position, a difference, perhaps, not too great to counteract the evidence derived from the island in the Nile, if there be none in a higher part of the river to correspond. And now, if it should ever be the lot of a future traveller to tread this arid soil again, at this point his search for Meroë should commence; and if no ruins were found farther to the

aliam insulam Tadu dextro subguntibus alveo [i. e. Nilo] quæ portum faceret. I. Edificia oppidi pauca. II. Regnare feminarum Candacem quod nomen multis jam annis ad reginas transit. Delubrum Hammonis et ibi sacrum. III. Et toto tractu facella. Plin. lib. vi.

Besides the evidence this passage gives for an island at Meroë, it contains some features common to Ethiopia, Nubia, and Abyssinia. I. Edificia oppidi pauca, is a circumstance as applicable to Gondar and Sennaar now, as to Meroë formerly. II. Candacè is the name of the queen subdued by Petronius. And a Candacè's eunuch was baptized by Philip. Bruce found the name of Hendaquè still existing. III. Toto tractu facella. In Abyssinia the churches stood so thick, that the service could be

heard from one to the other, as is noticed by the Jesuits and confirmed by Bruce. In these respects, therefore, the manners of all these nations appear similar. Pliny notices, in another passage, that they had forty-five kings: a strong characteristic of Abyssinia, perhaps, rather than Meroë. The temple of Hammon, Strabo informs us, had been neglected by the Romans, and the superstition despised. In his age, therefore, the Oasis itself of Hammon had fallen to decay. It might still, however, preserve its reputation among the Meroites. See Strabo, lib. xvi. p. 815. Meroë is called Naulababe, the mother of ports, by the Egyptians; Neuba, by the natives; and Saba, by the Abyssinians. Marmol, vol. i. p. 45.

³⁸ Seventy-five to a degree.

south,

feuth, he might greet Bruce as the discoverer of Meroè, an honour which, perhaps, would be less disputed than his pretensions to the first discovery of the sources of the Nile. We ought not to be ungrateful to those who explore the desert for our information: Bruce may have offended from the warmth of his temper, he may have been misled by aspiring to knowledge and to science which he had not sufficiently examined; but his work throughout bears the internal evidence of veracity, in all instances where he was not deceived himself, and his observations were the best that a man furnished with such instruments as he had, and struggling for life, could obtain; they therefore deserve respect; and if we should be disposed to adopt his conjecture, rather than his position, from the circumstances before us, the extreme difference between him and the ancient astronomers is $16^{\circ} 24' 0''$, and $17^{\circ} 4' 0''$, a disagreement, perhaps, less allowable in this instance than most others, but still excusable, from the imperfection of all ancient observations depending on the shadow of the Gnomon, and the length of the day, and those of Ptolemy more especially.

If by stating these particulars relative to the latitude of Meroè, we could have obtained the position of Ptolemáís, we should not have to ask the reader's pardon for the digression; but all that we pretend to deduce from it is, that Ptolemáís cannot be fixed at Ras Ahehaz, or Ageeg, where it is placed by d'Anville and Bruce. The Shumeta, or Nubian Forest, which was the resort of the elephants, when Ptolemy built the city, and continues so to the present hour, is supposed to commence in the neighbourhood of that Cape, in latitude $18^{\circ} 31' 0''$, which disagrees more than two degrees with Ptolemy, and nearly one and an half with the conjecture of Bruce. If we descend
the

the coast a degree and a half, we arrive at a bay in the middle of the Nubian forest, the lower point of which is nearly in latitude $17^{\circ} 6' 0''$; a correspondence with Bruce's conjectural parallel of Meroë, so near as to be satisfactory. On a projecting point of this fort Ptolemæis was built by Eumedes⁵⁰, and secured from the natives by a foss carried round the angle from sea to sea; and if this situation should appear reasonable, from the deductions we have been so desirous to state, a better spot for procuring elephants cannot be chosen.

There is not a wish to conceal the uncertainty of this conclusion: the coast is little visited by any European vessels, and the charts of our best Hydrographers are therefore less to be depended on: Strabo's account agrees better with the measures of the Periplus, and the assumption of d'Anville at Ras Ahehaz. If the distance in the Periplus from thence to Adûli had been equally consistent, it would have been conclusive; but the whole is now determined by the parallel of Meroë, which the ancients carry through Ptolemæis, and we cannot well attribute to them an error of two degrees, on a point better established than almost any other whatsoever.

Mr. Gosselin carries it still lower, but without a cape, or any circumstance to mark the spot. And it is to be remarked, that he is so attached to his own estimates, for correcting the latitudes of Ptolemy and the other ancient geographers, that he pays little respect to local circumstances and the characteristick features of the coast. As I cannot dispute this matter on every point where we differ, I shall observe here, that his want of attention to the text appears no where more conspicuous than at Adûli and Arômata, two places

⁵⁰ Strabo, lib. xvi. 770.

which

which the Periplus marks with distinctions that cannot be mistaken, and which Mr. Goffelin transforms or displaces with great violence. The consequence is, that he is obliged to have two Adûlis, for which there can be no warrant either in history or geography.

With whatever errors my arrangement of the coast may be chargeable, I trust it will only affect individual positions: the general outline I am persuaded is true. I submit it, indeed, with less confidence to the public since I have perused the Researches of Mr. Goffelin. But I shall not relinquish the ground I have taken in a single instance. I trust to the investigation which I have patiently pursued under every difficulty, and I leave the issue to the judgment of those who are competent to decide.

It is necessary now to observe, that the hunting of elephants established at Ptolemâis is confirmed by Agatharchides, Diodorus, Strabo, and other authors. The manner of hamstringing these animals was an art as perfectly understood by the ancient barbarians⁶⁰, as by Bruce's Agageers; and the relish⁶¹ for the flesh of the elephant is an indelible characteristick of the nation. Ptolemy would have redeemed the life of the animal at any price, as he wanted elephants for his army; but he met with a refusal from the native hunters, who declared they would not forego the luxury of their repast for all the wealth of Egypt⁶².

⁶⁰ See Strabo, lib. xvi. p. 772. Diodor. lib. iii. p. 161.

⁶¹ They buccan it, according to Bruce; that is, cut it into thin stripes and dry it in the sun.—They cut it from the living animal,

according to Agatharchides and Strabo. A circumstance so peculiar that it can belong to Abyssinia or this coast only.

⁶² See Agatharchides, p. 14. Hudson, Geog. Min.

A D O U L I.

V. FROM Ptolemáís, the next port we are conducted to by the Periplus is Adúli, at the distance of about three thousand stadia; a space by no means agreeable to the difference between Ras Ageeg and this place⁶³, as little more than two degrees of latitude intervene, which produce short of an hundred and forty miles, where we ought to find three hundred. This we are informed was a regular and established port⁶⁴, and it can be no other than the celebrated harbour and bay of Masuah, so well known by the accounts of the Jesuits and of Bruce, as the only proper entrance into Abyssinia.

It is not my intention to enter farther into the detail of this country, so extraordinary and now so well known, than I am led by the classical authorities before me; but they are so numerous, and so consistent with modern accounts, that to neglect them altogether would be reprehensible.

The Bay of Masuah or Adúli has an extent of six miles, and is⁶⁵ open to the north east⁶⁶. It contains two islands, upon one of which the town of Masuah stands, and which, from its vicinity to the main, must be that of Diodórus, as it is called in the Periplus; so near, says the

⁶³ 15° 35' 5". Bruce, iii. p. 31.

⁶⁴ ἑσπέριας πόλιος, perhaps, *Jussus Portus*, in contradistinction to Ptolemáís and Berenice, which were not ports but roads.

⁶⁵ Bruce, iii. p. 63:

⁶⁶ In the Periplus, καὶ ἀπὸ τοῦ νότου, which of necessity we must render *secundum Notam*, as κατὰ τὸ δεξιόν, à dextrâ. I know not that the usage is justifiable, but other instances will

occur in the Periplus, and it is impossible that a south-west coast should lie open to the south-west, perhaps, καὶ ἀπὸ τοῦ νότου, "as you sail or direct your course to the south." This island is so called from Diodórus a former navigator, as we may suppose, and perhaps the Diodórus Samius mentioned by Ptolemy, lib. i. c. 7.

author, that the sea was fordable⁶⁷. And the natives took advantage of this to attack the ships at their moorings. For this reason the merchants had afterwards preferred anchorage at another island, called Orinè, or the Rock, at twenty miles distance from the coast⁶⁸, which answers to the Dahalac of Bruce, or one of its dependencies⁶⁹. The two islands in the bay are called Sheik Sede and Toualhout, and for the former, which is a title manifestly derived from a Sheik's tomb, De la Rochette has found the name of Dúli⁷⁰, still bearing a resemblance to the ancient Adúli.

At twenty stadia from the shore, and opposite to Orinè lay Adúli, which was a village of no great extent; and three days' journey inland was Koloè⁷¹, the first market where ivory could be procured⁷². Five days' journey from Koloè lay Axúma, where all the

⁶⁷ The two islands of Sheik Sede and Toualhout are nearly one at low-water, they may have been joined formerly. Bruce, iii. p. 56.

⁶⁸ Two hundred stadia. Dahalac itself is about thirty miles distant, but many of the islands dependent on it are within twenty.

⁶⁹ Dahalac, according to Bruce, vol. i. p. 350. is a low flat rocky island, without water, but furnished with tanks of extraordinary magnitude and structure, for the preservation of the rain water, which falls abundantly at certain seasons. These works are now in ruins, but Bruce supposes them to be the works of the Ptolemies, in the vigour of the Egyptian trade. They may be Sabæan, for Dahal, or Del, Bruce informs us, signifies an island, in Arabick; and both this Dahal-ac and another Del-aqua in the Bay of Zeila, may have been isles where the Sabæans procured water. I refer this to the inquiry of Orientalists.

In fixing upon Dahalac for Orinè, I am

guided by the two hundred stadia of the Periplus, and supported by d'Anville. But Orinè signifies *mountainous* rather than *rocky*. And Cosmas mentions ἄρει μῆλις δὲ. Cosmas is high authority, he was at Adúli himself; and the mention of the islands Alalaia in the Periplus, evidently the dependencies of Dahalac, if not Dahalac itself, leaves little doubt on the allotment of Orinè. See d'Anville, Geog. Anc. tom. iii. p. 60.

⁷⁰ Bruce met with a Mahomet *Adúli* at Masuah; vol. iii. p. 17. which seems to imply that the memorial of Adúli is not lost.

⁷¹ In Tigrè, the province of which Sirè is a part, the market is still on the same footing. The best slaves, the purest gold, the largest teeth of ivory must all pass through the hands of the governour of this province. Bruce, iii. p. 251.

⁷² The elephant's track was first seen by Bruce, on the third day, iii. p. 71.

ivory was collected which was brought from the other side of the Nile, through the province called Kuenion, and thence by Axûma to Adûli. These distances answer exactly to place Koloè on the mountains⁷⁵, which commence at the back of the sands; and eight days' journey to Axûma is a just allowance for about an hundred and twenty miles⁷⁶, which is its distance from the sea. The province of Kuenion is manifestly Sirè, which receives its name from the Dog Star, under the influence of which the rains prevail that are to inundate Egypt, and Siris⁷⁵ is synonymous to Kuenion in the language of the country. Few elephants or rhinoceroses are seen on the coast or in the neighbourhood of Adûli. The masts of them which supply the trade are all killed in the interior.

The sovereign of this coast, from above Berenicè⁷⁶ down the whole tract of Barbaria, is Zoskales, he is very superior to the other princes in the neighbourhood. Civilized in his manners, respectable in his conduct, liberal and honourable in his dealings, and instructed in the knowledge of the Greek language.

The province assigned to this sovereign corresponds precisely with the territory assigned to the Bahr-nagash, or king of the coast, under

⁷⁵ Turanta is the ridge that divides the seasons, on the east rainy from October to April, on the west cloudy, rainy, and cold from May to October. Bruce, iii. p. 65.

⁷⁶ Fifteen miles a day is not slow travelling in such a country as Bruce describes. Nonnosus makes it fifteen from Adûli. See Photius, in Nonnos.

⁷⁵ Kuo, Canicula Scir, a dog in the language of the Troglodytes. Bruce, i. p. 379. See Dionysius Perieg. where it appears that this account of the Dog Star is as old, at least, as Dionysius, or his commentators. Lib 222.

and Eusebinius.

⁷⁶ Having above ventured to fix Berenicè at Belled-el-Habesh, the port of Abyssinia; it is some sort of confirmation to find, that Berenicè is actually included in the government of Zoskales, who is, to all appearance, the Bahr-nagash of his age, that is, the king or governour of the coast, a title still preserved notwithstanding the Turks are masters of the ports. See Bruce, passim. Bahr=Sea, Nagash=king or governour. Whence the vulgarism of the negus for governour, the great negus, for the king of Abyssinia.

the empire of Abyssinia; and the manners attributed to him are consistent with that pre-eminence which the Abyssinians in all ages seem to have preserved over the barbarous tribes by which they are surrounded.

How it has happened that a nation neither Nigritian or Ethiopick should be settled in this part of Africa, distinguished from all around them, as much formerly by their manners, as they now are by their religion, is a problem that has divided the opinion of all who have visited the country.

That they are not of Hebrew origin appears evident, notwithstanding their own pretension and the arguments of Bruce; because, in the first place, the Jews among them continued a distinct tribe; and in the next, their language is written from the left hand to the right⁷⁷. Paolino, a missionary on the coast of Malabar, asserts, that though the character is different, the principle, genius, and constitution of their language is Shanskreet⁷⁸. A question well worthy of examination by those who are qualified to pursue it. But as far as a private judgment is of weight, I must confess, that the account of Heródotus has always appeared to me the most rational; that they are a nation of fugitives from Egypt. Strabo, in copying this opinion, has added, that the appellation⁷⁹ they give

⁷⁷ See Butler's Horæ Biblicæ, p. 173.

⁷⁸ A speculation well worthy the investigation of Li. Wilford, and coinciding with his system.

⁷⁹ I think I can fix the site of the Sebites so positively as to identify them with the Abyssinians; the place assigned to them by Strabo is Tènesis, inland from Sabai; and

Sabai is both by d'Anville and Bruce supposed to be Ras Affab=Cape Affab, in lat. 13° 3'. If this be allowed, it accords intimately with Abyssinia: because as Strabo goes inland he reverts to Meroë, which proves that his detail on the coast, and in the interior, do not quite keep pace together. A line drawn from Affab to Meroë would almost touch Axúma, and

give themselves is *Sebritæ*³⁹; a term which signifies *Advenæ*⁴⁰, the more remarkable, as Bruce observes, that the original title by which they are distinguished in their own history and language, is that of *Habesh*⁴¹, or *Convænæ*. It is impossible to suppose, that the affinity of these two words is accidental.

The flight of these exiles is fixed by Herodotus in the reign of *Pfammetichus*⁴²; 630 years before Christ, and only 185 years before the date of his own history; he mentions that they went to as great a distance⁴³ beyond *Meroë*⁴⁴, as *Meroë* is from *Elephantinè*, to the number of two hundred and forty thousand; and that the name by which they were distinguished as a nation was *Asmack*⁴⁵, or *Askham*; an appellation which *Reisk*⁴⁶ and other Orientalists have supposed to allude to *Axúm*, the *Axúma* or *Axóma* first mentioned expressly

cut *Abyssinia* in the centre. I with a reference to be made to the whole passage in *Strabo* lib. xvi. p. 770, where among much obscurity, much truth may be discovered. And where I should think that *Sukho* is *Suakem*, but that *Strabo* says it is inland. It is in reality a town on an island in a bay, the approach to which is by a narrow channel like a river. See de la *Rochette's* map of the Red Sea. See also the learned *Larcher's* notes eighty and eighty-three, on this passage of *Herodotus*; with his citations from *Plutarch de Exilio*, p. 601. and from *Diodorus*, lib. i. p. 77. A passage occurs here in *Diodorus*, which I ought not to have omitted at the conclusion of the first book, to prove the commerce of the Greeks in the ports of *Egypt*: *Ἰαμυρίτιχες . . . παρέχοντο φορτία πᾶσι τοῖς ἑσπέραις; μάστιγα δὲ τοῖς Πέρσιν καὶ Ἕλλησι.* *ibid.*

³⁹ He adds, that these *Sebritæ* are under the government of the queen of *Meroë*, p. 771. which though, perhaps not true, discovers the

connexion, or the similarity of government.

⁴¹ *Ptolemy* has the name of *Silbitide*; perhaps the same, in the Greek text *Sebardæ*.

⁴² *Bruce*, vol. i. p. 379.

⁴³ *Pfammetichus* died in 616. *Blair*. *Herodotus* read his history at the Olympick Games, 445, ante *Christum*. I allow to the middle of *Pfammetichus's* reign.

⁴⁴ The distance assigned by *Herodotus* is fifty-two days to *Meroë*, and fifty-two beyond, which do not correspond, if the termination is at *Axúma*. See lib. ii. p. 116. But beyond *Egypt* all must be report. *Aristides*, *Orat. Egypt.* contradicts *Herodotus* as to the distance, as I learn from *Larcher*, tom. ii. p. 213.

⁴⁵ *Bruce*, vol. i. p. 278, quotes *Herodotus* in this passage, for what he does not say.

⁴⁶ It signifies the left hand. *Herod.* because they had been guards on the king's left hand, perhaps the left wing of his army. See *Diod.*

⁴⁷ See *Wesseling*, not. 71. *Herod. lib. ii. p. 116.*

in the Periplus: a supposition which there is very little reason to discredit. In addition to this testimony of Herodotus, we have a variety of evidence from other authors, that Adûli¹⁸ was built by exiles from Egypt; and if Bruce had not had such a predilection for his Shepherds, he must have discovered, that the monuments he found at Axûma himself, the obelisk¹⁹, the tot, the table of hieroglyphics, and the sphinxes, are perfectly Egyptian, and not pastoral, Troglodytic, Meroite, or Greek.

That the Greeks from Egypt landed at Adûli, and subdued the country as far as Axûma, or farther, is evident. Ptolemy Philadelphus pushed his discoveries beyond Meroë by land, and by sea, perhaps, as far as Madagascar; and the famous inscription preserved by Cosmas Indicopleustes, is a proof that Euergetes subdued a considerable part of Abyssinia.

This inscription is reported by Cosmas to have been engraved on a tablet and on a marble chair or throne of the conqueror; and to have been extant in his own age at Adûli, 545 years after the Christian era. It is not without its difficulties; but Cosmas, from internal evidence, was certainly at Adûli²⁰ himself, and acquainted with Abyssinia. Ptolemy appears, by the inscription, to have passed the Tazzè, which he calls the Nile, and to have penetrated into Gojam,

¹⁸ Pliny, lib. vi. c. 24. Adûlito oppidum Ægyptiorum; hoc servi a dominis profugi considerunt.

¹⁹ All these are noticed by Bruce, and the form of the obelisk delineated: they are mentioned also by Lobo, p. 201. Fr. ed. Obelisks also and pyramids appear in the picture of Adûli, drawn by Cosmas on the spot, anno Christi 532. See Chishull Antiq. Asiaticæ, in

Marmore Ad. litano. See Dissertation, No. ii.

²⁰ Though he is called Indicopleustes, I can hardly give him credit for having ever sailed on the Indian ocean. His description of Ceylon has obtained this title for him. But he says himself, he had it from Sopater. And his account of the sea beyond the straits of Bab-el-mandeb may well make us think he never passed them.

the very province where the fountains of the Nile are found; the Agows are mentioned by name, and other appellations seem to imply the kingdoms of Tigrè⁹⁰, Bizamo, and Begemder, the country of Geez, with the mountains Samen and Lamalmon. The snow mentioned on those tracts is disclaimed by Bruce⁹¹. But what phenomena were natural to the country in so distant an age, it is hard to determine. What is added, that Ptolemy Euergetes made roads or opened a communication by land between this country and Egypt, is the most remarkable particular of the whole, because this method of intercourse seems wholly obliterated, as far as may be judged by subsequent writers. And Agatharchides does not appear to be acquainted, either with the expedition of a sovereign of his own country, not fifty years deceased, nor with the country, or its port Adûli⁹². His account goes no farther down the coast than Ptolemâis; and even there is not without a mixture of the marvellous.

This, however, is but a negative proof, and not sufficient to invalidate an existing inscription, if Cosmas is worthy of belief; and to his credit be it mentioned, that Bruce⁹³ found the name EUE'RGETES, still visible on a stone at Axûm, which serves as a footstool to the throne on which the kings of Abyssinia are crowned at this day.

⁹⁰ See Dissertation ii.

⁹¹ Vol. ii. p. 296. Bruce says, there is no word in the language to express snow or ice. But Horace says, Soracte stat nive candida, a circumstance which now never occurs, as I think, Addison says.

⁹² See Appendix, Adûlitic marble, No. ii.

⁹³ Bruce writes, "The inscription though

much defaced, may safely be restored." $\text{IITOAEMAIOTY EBERGETOTY BAZIAEOTY}$. How much more authentic would a fac simile of the inscription have been, than the restoration? in which, by an error of the author, or the press, EBERGETOTY, is read for EYEBGETOTY, vol. iii. p. 132.

On this evidence there is little reason to doubt the expedition of Ptolemy to this country; and however the port of Adûli might be forgotten or abandoned in the time of Agatharchides, it became again conspicuous, as the trade increased in the Red Sea; or at least as it was conducted under the protection of the Roman power in Egypt.

This intercourse will sufficiently account for the character which the *Periplus* gives to Zôskales²⁴, the civilized state of his manners, and his knowledge of the Greek language. And it is plain that this country was just beginning to be known again, as Pliny mentions Adûli only without any notice of Axûma; and Strabo, who preceded him, makes no mention of either. The manners of these tribes he derives chiefly from Agatharchides, with the addition of some peculiarities²⁵; but with the commerce of the coast, and the kingdom of Abyssinia, he was unacquainted, though he accompanied Elius Gallus to Syênè. That journey of Gallus was preparatory to the opening of the trade meditated by the Romans, from their first entrance into the country; the author of the *Periplus*²⁶ writes as if it had been opened previous to his own time, and with every apparent evidence, that he had traded to Adûli himself. The assortment of his cargo is as specific as a modern invoice.

²⁴ So and Suah, according to Bruce, are roots, implying the Shepherd tribes on this coast. Thus Ma-suah is the port of the Shepherds. Could he not have found So in Zôskales the king of the Shepherds?

²⁵ *As γαστήρ ἐστὶν ἐκ τερροφώδης*, p. 771.

²⁶ If the Adûlic inscription is verified, it is the first authentic account of Abyssinia. But the knowledge of it was lost, and the *Periplus* is the first work extant, which expressly notices Adûli, Axûma, and the commerce of the country.

E X P O R T S.

Ἐλέφας.	Ivory.
Ῥινocerώξ.	Horns of the Rhinoceros.

I M P O R T S.

Ἰμάτια βαρβαρικά ἀγναφα τὰ ἐν Ἀιγύπτῳ γινόμενα ⁹⁷ .	Cloth with the knap on, of Egyptian manufacture, for the Barbarian market.
Στολάι Ἀρσινόητικαί.	Robes made up, the manufacture of Arsinoè or Suez.
Ἄβολοι νόθοι χρωμάτινοι.	Single cloths dyed, in imitation of those of a superior quality.
Λέντια.	Linnen, supposed to be from the Latin Linteam.
Δικρόσσια.	Cloth, striped or fringed.
Λιθία Ἰαλῆ.	Glass or Chrysal.
Μυρῖνῃ ⁹⁸ .	Porcelaine, made up at Diospolis in Egypt, in imitation of Oriental.

⁹⁷ Bruce has shewn, that Barbarick, Barbarine, and Berberin, are names derived from Berber or Barbar, the native name of the coast of the Trogloditick, Ichthyophagi, and Shepherds. It goes down the whole western coast of the Red Sea. The Egyptians hated and feared them. It was, therefore, in Egypt a term both of dread and contumely, in which

sense it passed to the Greeks, and from them to the Romans.

⁹⁸ Salmatius everywhere reads Μορρῖνῃ, which he supposes to be Oriental porcelain; if so, the manufacturers of Diospolis are the Prototype of the European imitators. But there is much controversy upon this subject, what the Morrhuina really was.

Ὀρείχαλκος.	White Copper, for ornaments and for coin.
Μελίεσσα χαλκία.	Brafs, for culinary vessels, for bracelets, and ornaments of the legs, still worn in Abyssinia. See Bruce, iii. 54.
Σίδηρος.	Iron, for spear heads to hunt the elephants, &c. and for weapons of all sorts.
Πελύκια.	Hatchets.
Σκέπαρνα.	Adzes.
Μάχαιραι.	Knives, daggers, or kanjars.
Ποτήρια χαλκία εσρογγύλα μεγάλη.	Drinking vessels of brafs, large and round.
Δηνάριοι.	Denarii, specie for the use of strangers, <i>Roman</i> coin. If <i>Greek</i> , it would have been Δράχμαι, drachms.
Ὀῖος. Λαοδικῆος, ἢ Ἰταλικός.	Wine, Laodicean, i. e. Syrian, and Italian.
Ἐλαιον ἢ πολὺ.	Oil, but in no great quantity.
Χρυσάματα.	Gold plate. { According to the fashion of the country, and as presents, or for the use of the king.
Ἀργυράματα.	Silver plate. }

Ἄβόλλαι.	Watch coats, camp cloaks.
Καυνοὶ καὶ ἀπλοῖ.	Coverlids, plain.
ὄυ πολλῆ.	of no great value:
ὄυ πολλὰ.	not many.
Σίδηρος Ἰνδικός.	Iron, of Indian temper or manu- facture.
Ἵθόνιον Ἰνδικὸν τὸ πλατύτερον ἢ λε- γομένη μακαρή.	Indian cottons, wide and plain, perhaps blue Surat cottons, still common in Abyssinia. Bruce; vol. iii. p. 62.
Σαγματογῆναι, ἢ Σαγματογῆναι.	Cottons or Muslins, in parcels.
Περιζώματα.	Sashes, still an article in great request.
Καυνοίαι.	Coverlids.
Μολόχιναι.	Cotton, of the colour of the mal- lows flower.
Σινδόνες, ὀλίγαι.	Muslins, in no great quantity.
Λάκκος, χρωμάτινος.	Gum lack, but Salmasius thinks it the colour of a cloth or cotton. Plin. Ex. 816.

These are the principal articles imported from Egypt into Adúli. The voyage may be made any time from January to September⁹,

⁹ The author expresses himself both in Latin terms and Egyptian. From January to September; that is, from Tybi to Thoth, otherwise one must have supposed an error; for according to Bruce and the charts, the regular wind blows up the gulph from November to April. Perhaps there are means of coming down from Berenice or Ptolemæis, with land breezes?

but the best season is September, and this is consistent with the modern account of the winds in this sea.

Opposite to the Bay of Adûli⁹⁹ lie many low and sandy islands called Alalaïou¹⁰⁰, answering precisely to the appendages of Dahalac as described by Bruce, and exhibiting, seemingly, the elements of the modern name; for Dahal signifies an island, in the language of Geez. Hither, according to the Periplûs, Tortoise-shell was brought by the Icthyóphagi; and it is very remarkable that Bruce should observe the beauty of the tortoise-shell here¹⁰¹, to be so exquisite that it is a very profitable article of trade with China and the Indies. Those who know the Roman taste for ornamenting doors, tables, couches, beds, &c. with this shell, will not wonder at its value in the commerce of the ancients.

Below Adûli, about eight hundred stadia, or eighty miles, there is a deep bay with a vast accumulation of sand, in which is found the Opfian stone, that is no where else to be met with. Salmasius has proved that the title of Opfidian or Obsidian given to this fossil from an unknown Obsidius, is an error. He describes it as a dark green which will take a very high polish, and for which reason it is said to have been selected by Domitian to veneer a portico at an enormous expence, that it might by reflection shew if any one was approaching behind his back, and preserve him from the attack of an assassin. There are specimens in England of what the modern Italian artists call Opfian stone; its texture is close enough to admit

⁹⁹ *On the right*, according to the text, but to make this true you must suppose the writer at Adûli, fronting the sea, with his face to the east.

¹⁰⁰ Pliny reads *Alken*, lib. vi. c. 34.

¹⁰¹ Caught between Dahalac and Suakem, but he adds, on low sandy isles laid down between 13° and 20°, where, on his map, he hardly has a single isle.

of any polish¹⁰³, but it is so dark that the green tinge can only be discovered in a particular light.

The bay where it is found is much harder to discover than the stone itself¹⁰³. There is nothing like a bay till we come to Beilul, much too distant, and there are no data to guide us but the distance. It is here that the authority of Zoskales seems to terminate; and if Bruce had been able to give us the exact limit between the province of the Bahrnagash and the kingdom of Adel, it is possible that this might have determined the question.

From this bay the coast of the gulph, we are informed, has a more easterly direction to the straits: a circumstance agreeing with the maps of Ptolemy, the report of Agatharchides, and the opinion of the age. This gives the situation of the Bay, both in regard to Adûli and the straits.

The straits of Bab-el-mandeb, or Mandel, which is interpreted the gate of affliction, are in all respects worthy of consideration. They, for many ages, formed the barrier unpassed by Europeans; and from the time this barrier was forced, the knowledge of India and the countries beyond it has been on the increase to the present hour. I speak of Europeans, because I am ready to admit an intercourse between the southern coast of Arabia and Malabar, as early as the most speculative antiquary can require. I acknowledge all that can be attributed to the voyages of Solomon's fleet, as long as they are confined to the coast of Africa. I accede to the progress of Timosthenes down the same coast, perhaps, as far as Madagascar; notwithstanding the inconsistency of his accounts¹⁰⁴. And I allow

¹⁰³ I have seen this stone both rough and in its polished state.

¹⁰⁴ Hinc in ora Æthiopiæ, sinus incognitus, quod admittitur cum mercatores ulteriora scrutentur. Pliny, vi. 34. For Beilul, see

the Modern Universal History, vol. xii. p. 3011 where the ports of Vella and Leila are mentioned, which, if they had been carried beyond the straits, might have been the Sinus Avalites.

¹⁰⁵ See Pliny, lib. vi.

the Phenicians to have penetrated as far as Herodotus shall please to carry them, if he will not conduct them round the Cape of Good Hope. But whatever discoveries we attribute to the Oriental navigators, there is no historical evidence remaining, that the Greeks in Egypt prosecuted these discoveries so as to make them the basis of a settled trade: they contented themselves with fetching the produce of India and Africa from Yemen; if they did pass¹⁵⁵ the straits by accident or design, it was under such an impression of terror, that every thing beyond them was obscured by fable, the sun was a pillar¹⁵⁶, and the sea a curd.

Much that the three first Ptolemies had attempted, was neglected, or forgotten by their profligate and oppressive successors; and if the Romans had not taken possession of Egypt, a short succession of weak and ignorant princes might have reduced this commerce again into the same torpid state, it has experienced under the Mammeluks or the Turks. The dread of venturing on the ocean is expressed by many writers long after the trade to India was established; and Cosmas, in the reign of Justin, speaks of passing the straits as wildly as Pytheas does of the Arctic ocean.

As this species of the marvellous is a constant attendant upon ignorance¹⁵⁷, and an indication that the writer describes what he never saw; so is a plain narrative an evidence of truth, and the absence of prodigies one of the strongest proofs that the author really visited the country he describes.

¹⁵⁵ It has been noticed in the first book, how far their knowledge extended in the time of Agatharchides; he says, the Arabians traded to India, and Indian ships arrived at Arabia, without mention of the Greeks. How the Greeks afterwards reached India before the

discovery of Hippalus will be shown at large in the third book.

¹⁵⁶ Agatharchides.

¹⁵⁷ Compare the account in the Periplus no lower than Ptolemæus Thérus with the account of the same course in Agatharchides.

It is from internal evidence of this sort that I conclude the author of the Periplus to have been himself a trader on the coast of Africa and Malabar. Concerning both he speaks with the temperate language of one who describes objects that are familiar; and the extravagance, such as he has, commences not till he passes Cape Comorin.

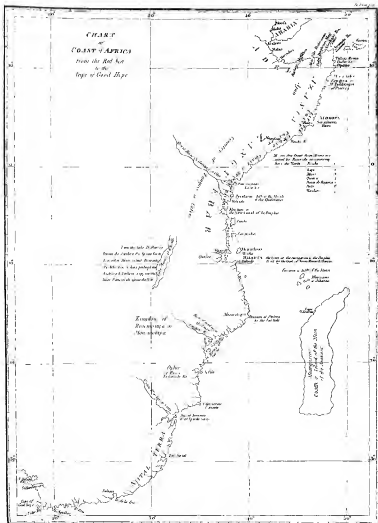
In running down the coast from Adûli to the straits, we have no mention of any place but the bay where the Opfian stone is found, upon an extent of near four hundred miles. The author conducts us at once to Avalîtès, which lay immediately beyond the neck of the straits; and from the time we leave Ptolemâis Thêrôn most of the appellations are native, without reference to the reigning family of Egypt, or to the Greek language,¹⁰⁸ for their origin.

The reason of this does not appear, as Strabo, Juba, Pliny, and Ptolemy, all place Arfinoè and Berenîcè Epidîres in this tract, with slight traces of other Greek names, as Eúmenes and Antíochus¹⁰⁹. If they existed, it is strange that a Greek should have passed them unnoticed, neither does it appear that they are concealed under the native names which Ptolemy reports, in the same manner as our author¹¹⁰.

¹⁰⁸ Oriac, Daphnon, Apokopi are Greek names, but given from circumstances, and perhaps by the first navigator, as Cook named his new discoveries.

¹⁰⁹ Strabo, p. 771, Ptol p. 112.

¹¹⁰ Δαση, collum, and so Βασιάν (ε) δαση, written indeed Δαση in Ptolemy, and by a strange mistake in Bruce written and interpreted Diræ or the Furies from the Latin.



was sent to command the troops appointed to this service, in which expedition he and most of his followers perished. But the knowledge which the Portuguese obtained by that intercourse, and the wars in which they were engaged, on the coast of Arabia, with the Turks and Arabs, furnish the principal means that we have for explaining the topography of the country before us¹¹⁵. The English who still frequent the Red Sea, seldom visit the ports of Adel, as the state of the country presents little temptation to the speculations of commerce. But when the Portuguese first entered these seas, Adel, though a barbarous was still a powerful government¹¹⁶, gold dust, ivory, myrrh, and Abyssinian slaves¹¹⁷ formed the staple of its native commerce, the spices and muslins of India were still found in its ports, and notwithstanding the depredations of a savage war, caravans¹¹⁸ were protected, which arrived regularly from Abyssinia, and the interior of Africa more to the southward. These circumstances will contribute more to illustrate the narrative of the Periplus than any particulars which can be collected from ancient authors; the Portuguese found the country and the commerce in the same state as the Greeks described it fifteen hundred years before, Arabs

¹¹⁵ Marmol in this part of his work copies Di Banos. Di Barros's account we have in Ramusio, these with Oforius and Faria are the authorities referred to.

¹¹⁶ In the voyage of the two Arabs, published by Renaudot, the trade of Zeyla is noticed, in leopard's skins, amber, tortoise shell.

¹¹⁷ Abyssinian slaves are in high estimation in Turkey, Arabia, and India; they are docile,

tractable, intelligent, and endued with talents and courage which always elevate them to favour, and often to command. When commodore Robinson surveyed the coast of Brodia in 1772, an Abyssinian was master of Scindi. How different is this singular race from the Caffres on the coast in their neighbourhood!

¹¹⁸ See Corsali in Ramusio, vol. i. p. 187. Purchas, vol. i. p. 754.

mixed with the natives, the same productions and commodities, the same intercourse with Hadramaut and the coast of Malabar. This state of things ceased, in some degree, with the arrival of the Europeans in India. But as long as the Indian trade was carried on by the Red Sea, the kingdom of Adcl must have partaken in it, and its commerce would be similar to the Mofyllitick commerce of the ancients. This trade was singular; for, as far as can be collected from the authorities which remain, it appears, that in the age of Agatharchides, the Greeks of Egypt went no farther than Sabêa or Yemen, to fetch the commodities of India; that they afterwards passed the straits, and found a better market in the port of Mofyllon¹¹⁹, one of the harbours of Adcl; that in a later period they advanced as far as Hadramaut, on the southern coast of Arabia; and that all these efforts were made for obtaining the productions of India, till at last they reached that country themselves, first by adhering to the coast, and finally by striking across the ocean in consequence of the discovery of the monsoon by Hippalus.

The coast of Adcl, styled Barbaria¹²⁰ in the Periplûs, commences at the straits and terminates at Arômata; in which there can be little doubt, that the author is more accurate than Ptolemy, who extends the name of Barbaria down the coast of Ajan, the Azania of the Periplûs. Barbaria is much more properly extended to the north than the south; for the Troglodytes on the western coast of the Red Sea are the original Barbarians or Berberines, as Bruce has admirably proved, the perpetual enemies of Egypt, whence their name became a term of odium and distinction, and in this sense passed both to

¹¹⁹ Hence many Indian commodities were called Mofyllitick in the market of Alexandria, cinnamon, spices, muslins, &c.

¹²⁰ See Herodotus, lib. 11. c. 158. Allwood, 64.

the Greeks and Romans, as an appellation adopted for every thing that was foreign, or contrary and offensive to their own system of life and manners.

The coast of Barbaria is estimated at four thousand stadia¹²¹ in the Periplus, and is in reality four hundred and fifty geographical miles, without taking its sinuosities into the account. The straits at Bab-el-Mandeb are contracted to three and twenty miles, a space divided into two channels by the intervention of Perim and other isles, both of which were navigated by the ancients, according to their course down the opposite sides of the Red Sea; from the straits, the channel opens in an easterly direction to Cana or Cape Fartaque on the Arabian side, and to Arômata or Gardesfan on the coast of Africa. These two promontories form the proper entrance to the straits from the Indian Ocean, and are about two hundred and fifty geographical miles asunder. The latitude¹²² of Fartaque is 15° 45' 0", and that of Gardesfan 12° 0' 0".

The African side of this channel, which we are now to follow, contains, according to the Periplus, four principal marts or anchorages, called by the general name of Ta-pera¹²³; and the same number occur in the accounts of the Portuguese, but all attempts to make them correspond are in vain. D'Anville has placed them

¹²¹ Certainly more are intended by the Periplus but not specified. Four thousand stadia are four hundred Roman miles.

¹²² This is laid down from one of the latest charts, by Lawrie and Whitte; but in these latitudes, and the space between Fartaque and Gardesfan, the charts differ greatly.

¹²³ Whether we are to read Τὰ περα; or Τάρρα, is very justly doubted by the commen-

tators. I incline strongly to the former. The marts beyond the straits, in contradistinction to those within; properly τὰ περα, or περα. And this seems fully confirmed by the Periplus itself, p. 8. where the MS has τὰ περα and τὰ περα, which Hudson very properly writes τὰ περα, or τὰ περα, because joined with ταῦτα and τὰ ἀπὸ.

according to the measures of the Periplus. My own wish was to have reconciled Mofyllon with the modern Zeyla; first, upon account of a resemblance in the sound of the names; and secondly, because Zeyla is the principal mart of the moderns, as Mofyllon¹⁵⁴ was of the ancients. But this endeavour is favoured neither by the measures or the circumstances described. The leading facts upon which the following arrangement is founded, will be stated in their proper place; they amount, at best, only to conjecture; but this is of less importance, as they terminate in certainty at Arômata, with such striking peculiarities as can be derived only from one who had actually visited the coast himself.

ABALITES, AUALEITES, pronounced AVALITES, whether written with the B or the U.

VII. The first of these marts is Abalites, a road, but not a port or harbour; the goods are conveyed to and from the ships in boats or rafts¹⁵⁵. This place, according to the Periplus, is close to the Straits of Bab-el-Mandeb, but Ptolemy has fixed it at the distance of fifty or sixty miles, and makes it give name to the whole Bay of Zeyla, which is styled the Bay of Mofyllon by Pliny. There is a Ras Bel¹⁵⁶ in the charts which is not more than ten geographical miles from the straits; but whether the resemblance of the names marks any relation, is justly to be doubted.

¹⁵⁴ Marmol speaks of many ancient build- ings at Zeyla, but *ancient* may refer to Arabians of a much later date than the age of the Periplus, lib. 10. p. 155. et seq. French ed.

¹⁵⁵ Strabo notices the transferring the cargoes at the straits from ships to boats. May

it not be an error derived from the practice here mentioned?

¹⁵⁶ Marmol is fully convinced that Abalites is the kingdom of Adal, lib. x. p. 155, 156.

The imports of this place are :

Ἰαλὴ λιθία σύμμικτος.

Flint glass of various sorts.

Διοσπολιτικὴ ὄμφαξ.

Unripe grapes from Diospolis, or, perhaps, vinegar. See Hesych. Stuckius supposes it may be any unripe fruit; and Ramusio supposes it to be a species of stone.

Ἰμάτια βαρβαρικὰ σύμμικτα γε-
γναμμένα.

Cloths for the Barbarine coast, of various sorts, with the knap on.

Σῖτος.

Corn.

Οἶνος.

Wine.

Κασσίτερος ὀλίγος ¹²⁷.

Tin in small quantity.

The exports are conveyed by the natives in small craft to Kelis [Okélis,] and Moofa, on the coast of Arabia, consisting of

Ἀρώματα.

Gums, odoriferous gums.

Ἐλέφας ὀλίγος.

Ivory in small quantity.

Χελώνη.

Tortoise-shell.

Σμύrna ἐλαχίστη διαφέρουσα δὲ τῆς
ἄλλης.

Myrrh in very small quantity but of the finest sort.

¹²⁷ The tin of Britain we thus find on the coast of Africa. May we not justly suppose, that the Africans knew as little of Britain as the Britons of Africa? Yet here we see the medium through which the commodity was

conveyed. How many commodities passed from regions equally distant, without any knowledge of the medium? before any knowledge existed?

Particular attention is due to this last article, because the myrrh of Arabia is celebrated by every poet and historian, while Bruce says, it is not properly a native of that country, nor does it come to perfection there. Its origin, he affirms, is from Azam in Africa. The Periplus is perfectly in harmony with this assertion. It mentions the myrrh of this coast as the finest of its kind; it specifies the means of conveying it to Yemen or Sabêa; there the first Greek navigators found it, and through their means it found its way into Europe, under the name of Sabêan.

One other remark of the Periplus, that the natives of Avalites are uncivilized, and under little restraint, is worth noticing, because it is in correspondence with all the modern accounts we have, which describe the natives as treacherous beyond measure, a quality, perhaps, not mitigated by the introduction of Arabs among them, or the religion of Mahomet, but aggravated by instruction, and pointed by superstition.

We have now four thousand stadia to dispose of, eight hundred to Malao, and a thousand, or two days sail each, are allotted to Mundus, to Mofyllon, and Nilo-Ptoleméon. In the distribution of these d'Anville has acted wisely in considering the distances only; and though I differ from him in the following arrangement, upon the strength of one particular, which is the mention of directing the course east from Mundus, it is not without diffidence in my own assumption.

Μ Α Λ Α ὸ.

VIII. EIGHT hundred stadia, or eighty miles to Malaḷ, is more than sufficient to carry the position of this place to Zeyla; but the description given can hardly be consistent with the situation of that town in a bay; the anchorage¹²⁸ is marked as a road upon an open shore, with some protection from a promontory on the east. A protection on the east is more applicable to a coast that lies east and west, but an open road is hardly consistent with a bay¹²⁹ like that of Zeyla; and the security of the following anchorage seems to claim that privilege for Mundus. The natives of Malaḷ are described of a more peaceable disposition than their neighbours, and the imports are such as have been already specified, with the addition of

Χιτῶνες.

Σάγροι Ἀρσινοητικοὶ γεγραμμένοι καὶ
βεβαμμένοι.

Μελίεφθα ὀλίγα.

Σιδηρος.

Δηνέριον ἢ πολὺ χρυσῶν καὶ ἀργυρῶν.

Jackets.

Cloaks or blanketing, manufactured at Arfinoe or Suez, with the knap on and dyed.

Brafs or copper prepared to imitate gold.

Iron.

Specie, gold, and silver, but in no great quantity.

¹²⁸ Ὀμοίσις ἰστιάλοις, an open road. Stackius mentions Mergoe as its representative, from Belleforest.

¹²⁹ The whole curvature of the S. W. angle is called the bay of Zeyla, but Zeyla itself lies in an inner bay or harbour.

The exports are

Σμύνα.	Myrrh.
Λιβανός ὁ περὶ τῶν ἰσθμῶν ὀλίγος.	Frankincense, thus, or olibanum of Adel.
Κασσία σκληρότερα.	Cinnamon, cassia lignea.
Δέσνα, Κίττα, Δάμαρ.	Cinnamon of inferior sorts.
Κάγκαμος.	The gum cancamus.
Μακίς.	Tila, sesamum, carried to Arabia, but see Plin, xii. 8. who calls it an aromattick from India, the bark red, the root large. The bark used in dysenteries.
Σώματα σπαρίας.	Slaves, a few.

We have in this list the first mention of cassia, cassia, or cinnamon. It is all of the inferior sort, such as the coast of Africa always has produced, and produces still; of little value in any market, where it comes in competition with the cinnamon of Ceylon, but grateful to the natives, readily purchased by those who cannot obtain the Oriental, and still saleable for the purposes of adulteration. How old this traffick was is not easy to be determined, but if the ships from Egypt did not pass the straits when Agatharchides wrote, they certainly reached this coast in the time of Artemidorus, as we

¹²⁰ Περσικὸς must be interpreted according to its reference; if it applies to the port itself it is to be rendered *foreign*, not *native*. But it may be a mercantile term, by which the com-

modity was known at Alexandria; and then Ἀλιανὸς ὁ περὶ τῶν ἰσθμῶν will be the *frankincense* which comes from the ports *beyond* the straits, κατὰ τὴν ἰσθμὸν. See Perip. p. 8.

learn from Strabo, who mentions the bastard cinnamon, perhaps the same as the *casia lignea*, or hard cinnamon; he adds also, that the cargoes were transferred from the ships to boats at the straits, a proof that this commerce was in its infancy, lib. xvi. p. 768. 774. Slaves are noticed here as an article of commerce, a circumstance common to both the coasts of Africa in all ages; in the present instance it requires no great stretch of imagination to suppose that the ancient traffick of Adel was parallel to the modern, and that the slaves procured here would consist of both Cafrés and Abyssinians; according as the course of war or the plunder of individuals supplied the market, both for home consumption and exportation.

M O U N D U S ¹²¹, pronounced M O O N D U S.

IX. THE next anchorage we are directed to, is Mundus, at the distance of two days sail, or a thousand stadia: D'Anville fixes it at Barbora; in which he is justified by the measures. If I neglect the measures, it is with regret, but there are circumstances mentioned, which induce me to fix Mundus at Zeyla, or at an island previous, called Londi, by de la Rochette, and Delaqua by the Portuguese, for Malaô and Mundus, in Ptolemy ¹²², differ not in longitude; and his Mofyllon is a promontory which may be Barbora, but suits

¹²¹ *Ἐρυθρῶν ἢ Μήδων*. The true sound is Moondus, and whether the author means to give the native sound, both in this Moon-dus and in Palestmoondus, (Ceylon,) or whether it is a corruption of the text, may be doubted. But the usage is uniform, and therefore seems to be design rather than accident. Moondus has a more Oriental form than Mundus; and as both this place and

Ceylon were possibly so named by the Arabians who traded to both, it is natural to look to the Arabick for its meaning. See Peripl. p. 6.

¹²² *Μαλέων ἠπείρου ὄν. 579*. Maleôs, a mart, long. 78°. lat. 6° 30'. *Μήδων ἠπείρου ὄν. 580*. Muudû, a mart, long. 78°. lat. 7°. However erroneous these latitudes may be, their mutual relation has a considerable degree of weight.

neither of the other two. Another consideration is, that the Periplus, though it does not actually assert that the direction of the course to the east commences at Mundus, yet mentions it here for the first time: this is true, if Mundus be fixed at Zeyla, and this circumstance is the particular inducement for preferring it. The safety of the anchorage here at an island, or under the protection of an island, is marked with precision; and if there be an island at Zeyla, the whole evidence is consistent. Bruce¹³³ mentions the isle of Zeyla; but I have found no other authority; and if he is mistaken, Mundus must be carried back to Delaqua. But upon the authorities alleged, Malaô may be well fixed at Delaqua, and Mundus at Zeyla.

The native traders, at this port, are described as an uncivilized tribe¹³⁴, and the imports and exports similar to those of the preceding ports, with the addition of mokroton, a fragrant¹³⁵ gum, the more peculiar commodity of the place.

MOSULLON, written MÖSSYLLON by Pliny, MÓSYLLON by Ptolemy.

X. AT the distance of two or three days' sail, or from an hundred to an hundred and fifty miles, we are conducted to Mosyllon, the grand mart of the ancients on this coast, the place which gave name to their trade and to the whole bay, in preference to Abalites, in the estimation of Pliny. The distance from Zeyla to Barbora is stated at eighty miles by Oforius¹³⁶, a circumstance not unfavourable to the two

¹³³ Vol. ii. p. 142.

¹³⁴ Σκληρότεροι, duriores.

¹³⁵ θυμίαμα, incense.

¹³⁶ Oforius, vol. ii. p. 229. Marmol, lib. x. p. 156, makes it only eighteen leagues.

days' sail of the Periplus, which, in ordinary computation, are equal to an hundred miles, and which will bear contraction or extension according to the currents or the winds.

The character of Mofyllon¹³⁷ is omitted in the Periplus, but in Ptolemy it is twice¹³⁸ specified as a promontory, and by his latitude it is carried up a whole degree more to the north than Mundus. This projection is doubtless too extensive, but the feature is true, and suits no other point on the whole coast but Barbora, for Barbora¹³⁹ is a town upon an island¹⁴⁰ close to the shore, adjoining to a narrow cape of considerable extent, which is open, low, and sandy. Its want of height prevents it from affording protection against the N. E. monsoon, and this may be the reason why the Periplus calls it a bad road. D'Anville has carried Mofyllon another step towards the east, to a river where he finds the name of Soel¹⁴¹, and which he supposes related to Mofyllon; but the Periplus requires more rivers than we can discover at present, and this stream may well be preserved for Nilo-Ptolemæon, an appellation in which undoubtedly a river is implied.

But there is a still greater probability implied in the very name of Barbora, which is written Borbora, Barbara, and Berbera by

¹³⁷ It is remarkable that Juba makes the Atlantick Ocean commence at Mofyllon; by which we are to understand that he considered the whole ocean which surrounded Africa as commencing at Mofyllon and terminating at Mount Atlas. See Pliny, lib. vi. c. 29. Struckius in loco. See also Gronovius's map for P. Mela.

¹³⁸ Μόσυνδος ἄκρον καὶ ἑσπέρειον, &c. i. c. 8°. p. 112. Μόσυνδος δὲ ἄκρη τὸ ὀπίσθιον ΑΚΡΟΝ. p. 113.

¹³⁹ Corfali in Ramusio, vol. i. p. 187. The

Universal History mentions a river at Barbora called Howacha, vol. xii. p. 307. which Ludolfus says is the river of the capital Aucugarecæ. Marmol supposes Barbora to be Mofyllon, vol. iii. p. 156.

¹⁴⁰ This island is called Londi in some charts; de la Rochette applies Londi to what others style Delaqua. See Univ. Hist. vol. xii. p. 307.

¹⁴¹ The Universal History mentions Salim, and supposes it to be Mofyllon.

the moderns, retaining still the title of Barbaria, attributed to this coast by the ancients; and as d'Anville has observed, that the name of the province became applied to the capital in many European cities⁴², so have we in this part of the east, the town of Arabia Felix, so named from the province, and the same place afterwards called Aden from the country Adanè. It is probable, therefore, that Barbaria became applicable to Barbara, the principal mart on the coast; and if this be admitted, it gives great weight to the supposition that Barbora and Mosyllon are the same. The Mosyllitic coast and Barbarick coast were synonymous.

The imports at Mosyllon are the same as have been already specified, with others peculiar to the place.

- | | |
|----------------|-----------------------------|
| Σκέυη ἀργυρᾶ. | Silver plate, or plated. |
| Σίδηρα ἐλάσσω. | Iron, but in less quantity. |
| Λιθία. | Flint glafs. |

Exports.

- | | |
|---|---|
| Κασσίᾳς χρέμα ⁴³ πλείον ὁ καὶ
μειζόνων πλείων χρεΐζει τὸ ἐμπο-
ριον. | Cinnamon, of an inferior quality,
and in great quantities; for
which reason, vessels of a larger
fort are wanted at this mart. |
|---|---|

⁴² As Paris, Berry, Vannes, Triers, &c. &c.
⁴³ Some MSS. and the edit. Basil. read
 χυμα, which, according to Salmastus, is right.
 See Plin. Exer. p. 542. He refers it to
 χυδαίον, as signifying a great quantity. I un-

derstand it as common, ordinary, of an inferior or
 cheaper sort. See Perip. p. 28. Ὅμοιοι χυδαίοι,
 ordinary cottons. But the immediate addition
 of ὁ καὶ μείζονων πλείων χρεΐζει, implies quantity,
 and requires χρέμα, rather than χύμα.

Ἐὐόδια.	Fragrant gums.
Ἄρωματα.	Gums or drugs.
Χελωνάριον ἰλίγα.	Tortoise-shell, of small size, and in no great quantity.
Μικρότον ἤττον τῆ Μουνδικῆ.	Incense, in less quantities or inferior to that of Mundus.
Λίβανος ὁ περατικός ¹⁴⁴ .	Frankincense of the coast of Adel.
Ἐλέφας.	Ivory.
Σμύρνα σπανίας.	Myrrh, in small quantities.

The Mofyllitick trade of the ancients has been noticed already; and the cinnamon mentioned in this catalogue is a sufficient proof of Arabian merchants conducting the commerce of the place. An inferior sort of cinnamon indeed is a native production ¹⁴⁵, but the Mofyllitick species is enumerated by Dioscorides as one of prime quality, and consequently not native but Oriental. The immense wealth of the Sabæans, as described by Agatharchides, proves that in his age the monopoly between India and Europe was wholly in their hands; but the other tribes of Arabia traded to India also; and the Greeks of Egypt by degrees found the way to Aden and Hadramaut in Arabia, and to Mofyllon on the coast of Africa. Here they found rivals to the Sabæan market, and supplied themselves at a cheaper rate.

¹⁴⁴ Imported either from the opposite coast of Arabia, which did always and still does produce this article, or from India, the incense of which, Niebuhr says, is better and purer than the Arabian; but it rather refers to τὰ πικρὰ.

¹⁴⁵ A specimen of African cinnamon I have seen in the curious and scientifick collection of Dr. Burgefs; it is small, hard, and ligaceous, with little fragrance.

After another course of two days, or an hundred miles, we are conducted to Nilo-Ptolemæon. It is the last distance specified, and may be terminated either at the Soel of d'Anville, or at Metè, where there is also a river: the former is preferable, because the Periplûs makes mention of two rivers at least between Nilo-Ptolemæon and Aromata; and if we assume Soel for Nilo-Ptolemæon, we can find two other rivers, one at Metè, and another near Mount Elephant, which is the Elephant River of the Periplûs, and the Rio de Santa Pedra of the Portuguese. Strabo mentions the name of Nile on this part of the coast.

N I L O - P T O L E M A I O N .

XI. At Nilo-Ptolemæon we exhaust three thousand eight hundred out of the four thousand stadia allotted by the Periplûs to the range of marts, which are called by the common name of Te-para¹⁴⁶; and, speaking in a round number, it may be presumed the author estimates his four thousand as terminating at this place: this gives a measure of four hundred Roman miles, where the real distance is about four hundred and fifty; a correspondence certainly sufficient where there is no better estimate of measurement than a ship's course: and, sensible as I am that the particulars of d'Anville are better adapted to the distances at the commencement, the conclusion of the course and the position of Mosyllon are more consistent in the arrangement I have adopted. It is, however, at best but hypothetical, and submitted to the future determination of those who may obtain a more perfect knowledge of the coast.

¹⁴⁶ Τάραρα sic forsan dicta quia se mutuò tangunt et consequuntur, Stuckius. But it seems, as already noticed, τὸ τίμαρ. See Perip. p. 8. and Stuckius Com. p. 29.

But

But we are now arrived at a point in which there will be nothing equivocal. The promontory of Arômata, with its two inferior capes, Elephant and Tabai, will be described with a precision in perfect correspondence with modern observation; and the circumstances are so peculiar, that they bespeak the testimony of one who delineated them on the spot.

Marts, TAPATĒGE. DAPHNŌN MIKROS. ELEPHAS, Prom.

Rivers, ELEPHAS. DAPHNŌNA MEGAS, or AKANNAL.

XII. The places which occur are Tapatĕgĕ⁴⁷, the lesser Daphnŏn⁴⁸, and Cape Elephant; the rivers are the Elephant, and the greater Daphnŏn, called Acannai. Neither place or distance are assigned to any of these names, but we may well allot the rivers Daphnŏn and Elephant to the synonymous town and cape; and these may be represented by the modern Metĕ and Santa Pedra. The river at Metĕ is described by the Portuguese as dry at certain seasons. When they landed here under Soarez⁴⁹ in great distress,

⁴⁷ The literal translation of this passage runs thus: "Sailing along the coast two days from Mofyllon, you meet with Nilo-Ptolemaion, Tapatĕgĕ, the lesser Daphnŏn, and Cape Elephant. . . . then towards the south west, [is: Διὸς,] the country has (two) rivers, one called the Elephant River, and the other the greater Daphnŏn or Akannai. . . . after this the coast inclining to the south, [is: τὸν Νότον ἔδει,] succeeds the mart of Arômata, and its promontory, which is the termination of the Barbarick coast, and a projection more easterly than Apokopa."

The text is so very corrupt in this part of the work, and the points of the compass so discarded, that, after seeing Mr. Gosselin's

work, I endeavoured to reconcile them by following his system, and carrying Cape Arômata, which I have fixed at Gardesfan, to Daffai; but though this does relieve in some degree the expressions *Ἐς: Διὸς* and *Νότον*, still the two promontories of Gardesfan and Daffai are so strongly marked by Arômata and Tabai, that I returned to my own arrangement. Tabai is characterised as a promontory at the head of a Chersonese, and that is such evidence as hardly to leave a doubt upon the question.

⁴⁸ Dioscorides Daphnitis est Cassia species, sic appellatur a Daphnaute magno vel parvo ubi olim forsitan provenit. Stuckius, not. p. 24. sed potius a Lauretis, p. 25.

⁴⁹ Marmol, lib. x. p. 200.

they found the place deserted and no water in the river; but a woman whom they seized directed them to open pits in the channel; and by following her advice, their wants were relieved. Commodore Beaulieu¹⁵⁰, who anchored a few leagues north of Gardafan, received similar instructions from the natives with the same success. These circumstances are mentioned to identify the existence of rivers on this coast; and I think I can discover in the map, framed by Sanfon for the French edition of Marmol, that the learned geographer paid attention to these rivers of the Periplûs.

Cape Elephant is formed by a mountain conspicuous in the Portuguese charts, under the name of Mount Felix or Felles, from the native term, Jibbel-Feel¹⁵¹, literally Mount Elephant. The cape is formed by the land jutting up to the north from the direction of the coast, which is nearly east and west; and from its northernmost point the land falls off again south east¹⁵² to Cape Gardafan, the Arômata of the ancients.

But if we have the authority of the Portuguese for a river at Metè, we learn from an English navigator the same circumstance at Jibbel-Feel. Capt. Saris¹⁵³, in 1611, stood into a bay or harbour here, which he represents as having a safe entrance for three ships

¹⁵⁰ An intelligent French Commander, in 1619, whose voyage is published by Melchizedec Thevenot, and inserted in Harris. The pits Beaulieu opened were on the shore.

¹⁵¹ Jibbel-Feel, Arabick, from the Heb. גבול.

Bruce is angry at the misnomer of Felix. Perhaps other names in the Periplûs would admit of translation, if we knew the language to refer to.

¹⁵² *Est vis Néros* Perip. not correct; because, according to the author's own system, Arômata is the easternmost point of Africa.

¹⁵³ Saris calls the place *Felux*, from the Portuguese *Felux*, but as he describes it between Gardafui and Demety, [Metè,] there can be no mistake. Purchas' 8th voyage of the East India Company, vol. ii. p. 340.

a-bread, and that both wood and water were in plenty; he adds also, that several sorts of gums, *very sweet in burning*, were still purchased by the Indian ships from Cambay, who touched here for that purpose in their passage to Mocha.

The whole detail of this coast, from the straits of Bab-el-Mandeb to Cape Gardafan, is principally derived from the Portuguese, who ravaged it under the command of Soarez, in the years 1516 and 1517. Corfali, whose account is preserved in Ramusio, served in the expedition. Soarez¹⁵⁴ had been sent against the Turkish force collected in Arabia, a service which he conducted with great ignorance and ill success. The distress of his fleet he endeavoured to relieve by plundering the coast of Adel; Zeyla, Barbora, and Metè were deserted on his approach, where little was obtained. Zeyla is described as a place well built and flourishing; but of Adel, the capital, little is to be found. That the power of the kingdom was not injured by these ravages appears from the success of its arms against Abyssinia between this time and the year 1564, which extended almost to a conquest, with increasing hatred against every thing that bore the Christian name. Little is known of this country since the decline of the Portuguese, but that the government is Mahometan, and the governed are removed but a few degrees from the Cafres of the coast below.

At the marts which succeed Nilo-Ptolemæon in the Periplûs, no articles of commerce are specified, except frankincense, in great quantity and of the best quality, at Acannai. This is styled *Peratick*¹⁵⁵, or *foreign*. But it cannot be admitted in that sense as to

¹⁵⁴ This expedition is found in Olorius, di Barros, Faria, and Bruce.

¹⁵⁵ Ὁ περιπλοῦς.

the commodity itself, for it is noticed expressly as a native¹⁵⁶ produce of the place. Still it will lead us to solve a difficulty already noticed in regard to these ports of Barbaria, called Ta-pera, which, by a slight correction¹⁵⁷ of the text, will signify the ports *beyond* the straits. The articles obtained here would naturally be styled Peratick, from (Pera) *beyond*, and would be known by this title in the invoices, and the market of Alexandria, in contradistinction to those obtained in Sabêa, Hadramaut, or India. The author is writing to Alexandrians, and is consequently specifying the precise ports where those commodities were obtained, which they knew by the name of Peratick.

This is not the only difficulty in this part of the work before us: the quarters of the heaven are dubiously described; the sentences are ill connected or imperfect. There is at least one interpolation¹⁵⁸, or a corruption equivalent; and it is not known that any manuscript is in existence, which might lead to a correction of the

¹⁵⁶ Ἀνάστα ἐν τῇ μεσογίῳ Ἀσίᾳ ὁ κρηταῖος πῶδος καὶ διέφερος ΓΙΝΕΤΑΙ, "where more especially the Peratick frankincense is "greatest quantity, and of the best quality, is "produced." All the testimonies of the ancients unite in supposing Thus or Frankincense to be the peculiar native produce of Sabêa. But Bruce and Niebuhr both agree, that it is not a native, and that the best is not produced in Arabia, but procured from Adcl and India. But in Arabia the ancients first met with it, both produced there and imported. How correspondent is the evidence of Bruce and Niebuhr to that of our Alexandrian merchant!

¹⁵⁷ Τὰ ὄρια, the ports *beyond* the straits. See Perip. p. 8. ὀρίων.

¹⁵⁸ Καὶ ἀνεπιτήρητος Ἐλέφας, [ἀπὸ Οὐρόνος ἐς Νότον προσηρῆ] The five concluding words are a manifest interpolation, because we are not yet arrived at Arômata, and Opônè is subsequent. From Arômata to Opônè the tendency of the coast is south west; and from Opônè it continues the same: but from Elephas the coast lies south east to Arômata; and Elephas is not connected with Opônè at all. Stuckius and Hudson both complain of the corrupt state of the text. And Sigmundus Gelenius, who published the first edition at the press of Frobenius, Basil, 1532, in his Prefatory Epistle, takes no notice whence he had the manuscript. See edit. Froben, Basil, 1532.

text. Under these circumstances, indulgence is due to the attempts which have been made to preserve, in any degree, the connection and consistency of the narrative.

We now arrive at Cape Arômata or Gardéfán, a place of importance in every respect; for it is the extreme point east of the continent of Africa; it forms the southern point of entrance upon the approach to the Red Sea; and it is the boundary of the monsoon from causes that are almost peculiar. Its latitude is fixed

6° 0' 0" N.	by Ptolemy ¹⁵⁹ .
12° 0' 0"	- Beaulieu.
11° 30' 0"	- D'Anville.
13° 30' 0"	- Bruce.
12° 0' 0"	= in Lacam's chart, and the general one by Lawrie and Whittle.

Beaulieu, who anchored within four leagues of Gardéfán, describes it as a very high bluff point, and as perpendicular as if it were scarped. The current comes round it out of the gulph with such violence that it is not to be stemmed without a brisk wind, and during the south west monsoon, the moment you are past the cape to the north; there is a stark calm with insufferable heat.

This current, we may conclude, is not constant, and probably depends upon the direction of the winds; for Faria mentions a ship that was separated on the coast and carried to Zeyla by the current.

¹⁵⁹ It is very remarkable that the latitude of Ptolemy should be so very erroneous on this coast, which was visited every year by merchants he must have seen at Alexandria.

And Purchafe¹⁵⁹, from Fernandes, asserts, that the current sets into the gulph during the increase of the moon, and out of it upon the wane. The current below Gardefan is noticed by the Periplûs as setting to the south, and is there, perhaps, equally subject to the change of the monsoon.

There is great diversity in writing the name of this promontory, and of its two subordinate capes. Bruce is very urgent in directing us to write it Gardefan, and not Gardefui¹⁶¹, as it appears upon many of the charts; Gar-defan, he says, signifies the straits¹⁶² of Burial, and we have had Metè or Death before, names which imply the sufferings or terrors of the navigators. The Greeks, if their appellations may be admitted as a proof, were either better omened or less alarmed.

T A B A I.

XIII. AT Arômata the Periplûs marks in the most pointed manner, that the coast falls in to the south; and in another place specifies its southerly or south westerly direction to the limits of ancient discovery. But before it touches upon this, another cape is marked; called Tabai, which answers to the d'Orfui¹⁶³ of the Portuguese, about seventy-five geographical miles south of Gardefan. And thus is Arômata, with its two inferior capes, defined as precisely by the Periplûs as Gardefan could be by the best geographers of the moderns.

¹⁵⁹ *Faria*, vol. i. p. 158. Purchafe, vol. i. p. 751.

¹⁶¹ Vol. i. p. 443.

¹⁶² An error, perhaps, for cape, *ibid.*

¹⁶³ Harris, in *Beaulieu's Voyage*, calls it Orpin. Beaulieu lay near two months to the southward of Orpin or Tabai. Harris, i. p. 726. Orpin approaches to Opônè.

The author expressly mentions also that Arômata is farther east than Apókopa, and actually the most eastern point of the continent; the anchorage, he adds, is totally exposed, and in some seasons very dangerous, because it is open to the north. The certain prognostick of an alteration in the weather is when the sea changes colour and rises turbid from the bottom. Upon the sight of this, the vessels which are at anchor here weigh instantly, and fly to Tabai for shelter. This remark is the more valuable, as the author himself mentions it rather as the effect of an accidental change of the wind than of the monsoon. But as we have observed before, that in the south west monsoon, Beaulieu found a dead calm to the north of Gardesfan; from the same cause, in the season of north east monsoon the calm will be on the south of Arômata and Tabai, or d'Orfui²⁶⁴.

With this delineation before us of the most prominent feature on the coast, whatever failure may be discovered in fixing the stations from the straits to the cape, it can by no means discredit the originality of the work. Distance of time, the changes of power, or commerce, may have defaced the particular features we have described, but the general appearance of truth and fidelity is indisputable. If any accident should lead an English navigator again

²⁶⁴ Orfui is written d'Orfui, Arfur, d'Arfur, and Carfur, possibly for Cape Arfur; but the true orthography seems that of Bertholet, who writes d'Affui; or, perhaps, as Rellende does, Daffui; apparently the same word as Tabai, if we consider that the Greek pronunciation of Tabai is Tavai, and that Tavai, Davai, and Davui, naturally approach Daffui; but I consign this to future inquiry upon the spot; and future inquiry may likewise determine whether the two capes Daffui

and Gardesfui are relative appellations, for this I suspect, and think it possible that the relation may be discoverable in the Arabic; the same relation holds good in another form of orthography, which is Afun and Gardesfun. Could I ascertain which was right, I should as readily conjecture that Opônè [or Ophônè] was Afun, as that Tabai was Daffui. But there is no end of conjecture, without a knowledge of the language.

to this barbarous and neglected coast¹⁶⁵, it is very possible that the descriptions of places, brief as they are, may be recognized by a judicious observer, and the ancient narrative be established on modern investigation.

The articles of commerce obtained at Arômata we may collect from its title; for Arômata, (although Salmafius informs us it is the name for drugs in general,) in this journal, at least, signifies gums, spices, odours, and fragrant productions of every kind. The vessels which traded here we may suppose anchored to the north or south of the cape according to the season, and must have received or delivered their cargoes in boats and rafts, as has been noticed at previous anchorages. The change of the monsoon must likewise have been watched, as it is noticed in the Periplûs; no particulars of import or export are however mentioned here; but at Tabai or d'Orfui, it is said, that they brought the same articles of commerce as to the coast above, and received the following commodities in exchange, which were native:

Κασσία.	Cinnamon.
Γίγγερ.	Cinnamon of a smaller sort.
Ἀσύφη.	Cinnamon, ordinary.
Ἄζωμα.	Fragrant gums; but as inserted here, perhaps, a species of cinnamon.

¹⁶⁵ In the fleet sent to cruise at the mouth of the Red Sea, in 1798 and 1799, when the French in Egypt were suspected of an intention to escape to India, some intelligent English officer may have made observations

which would contribute more to solve the difficulties of this navigation than any which can be collected from the documents which have been published.

Μάγλα, Μοσά.

Cinnamon of inferior quality.

Λίβανος.

Frankincense.

At Arômata terminates the modern kingdom of Adel, and the Barbaria of the Periplûs; and here the coast of Ajau or Azania commences; in which our author is more correct than Ptolemy, who extends the limits of Barbaria farther to the south. Azam¹⁶⁶ or Ajam signifies water, according to Bruce; and in this sense is applied to the western coast of the Red Sea, in opposition to the Arabian side where water is not to be had. If Ajan has any reference to this, it seems very ill applied to the coast before us; for between Arômata and Apókopa is a most desolate shore, where hardly the name of a habitable place occurs in the modern charts, and where the Periplûs, from Opônè, is a total blank. At Apókopa, the Cape Baxos [or Shoal Cape,] of the Portuguese, commences the coast of Zanguebar, so called from the island of that name, the trace of which is preserved in the Zengifa of Ptolemy.

The following table is now submitted to the reader, with a just confidence in its general correspondence, but not without requesting a candid allowance for possible error in some few particulars:

¹⁶⁶ A kingdom called Adca is placed here by the maps; but the authors of the Universal History deny its existence, and so does Ludol-

fus; but the natives, he says, are called Hadians, i. e. Ajans, whence the corruption into Adcans and Adca.

Stadia of the Periplus.	Arrian.	Ptolemy.	Lat. North.	Modern Names and Latitudes.
Allowed 7300				
IX.		Efina ¹⁷³ Under the line.	0° 0' 0"	Brava? - 1° 0' 0" N.
500	X. Scrapion, one day's sail	Scrapion	3° 0' 0" S. lat.	
500	XI. Nikon, one day's sail	To Nikè Niki.	4° 45' 0" S.	
	XII. Several rivers and roads 3500 each a day's sail, in all seven, ending at the			* Coast of Zanzibar and Melinda.
	XIII. Pyralian islands and the new canal.			Mombaça? - 3° 50' 0" S.
	XIV. Eitenediom - Menou- 2000 théfias, two courses of twenty-four hours each ¹⁷⁴			{ Pemba? D. 4° 45' 0" S. Zanzibar? D. 6° 35' 0" S. * Monfia D. 7° 32' 0" S. Paté Sio Am- } D. 1° 50' 0" S. paça Lamo } Melinda of } Marmol and } 2° 35' 0" S. di Barros } Quiloa and Cape } Delgado, lat. } 10° Vossius and } the author. }
1000	XV. Rhapta, two day's sail	{ Rhapton River } 7° 0' 0" S. Rhapton metro- } polis of Bar- } baria } 7° 0' 0" S. Rhapton, prom. } 8° 20' 12" S.		{ Madagafcar? } Mofambique? } 15° 0' 0" S.
14,800 stadia = 1480 miles, divided by 75, the number of Roman miles in a degree, give 19 degrees, 55 miles. The real distance from Gardafan to Quiloa is somewhat more than 20 degrees.		Menouthias } 12° 30' 0" S. Prasum ¹⁷⁵ } 15° 30' 0" S. Head of the } Nile } { 13° 0' 0" S. } { 12° 30' 0" S.		

¹⁷³ There is an Afun which Struckius from Belleforest supposes to be Efina; but it is only one more corruption by writing Afun for Afan, which is the same as Affut or d'Affut. This may be proved by consulting Barboin in Ramus; vol. 1. p. 290. and the Modern Universal History, vol. xii. p. 307. Belleforest is of little authority. He wrote a Cosmography in 3 vols. fol. about 1560.

¹⁷⁴ Νυξθηραίων Τῆ θραύου τῆ ΝΥΧΘΗΜΕΡΟΥ, παρὲ καὶ ἄλλων ἰσοτιμῶν καὶ ἄλλων. Ptol. lib. i. c. 9.

¹⁷⁵ Prasum, from Prasos, grec. Marcian. Herc. apud Hodson, p. 12.

N. B. At page 126, note 147, the change of *Arómata*, imputed to Mr. Gaffelin, is not founded, and I take this opportunity of recalling the imputation, as the correction was too late for the press.

Observations on the foregoing Table.

IF it were at any time allowable to build on the measures of an ancient journal, it might be presumed that the present instance affords grounds for it, justifiable in an uncommon degree. The latitude of Gardesfan, according to d'Anville, is $11^{\circ} 45' 0''$ N. and that of Quiloa $8^{\circ} 30' 0''$ S. ¹⁷⁶ making $20^{\circ} 15'$, where the Periplus gives $19^{\circ} 45'$, an approximation never to be expected in estimates of this sort, and liable to suspicion merely on account of its correspondence. But let it not be imagined that Quiloa or Cape Delgado are assumed for Rhaptum from the distances of the journal, because, if they cannot be supported by circumstances, they may justly be abandoned.

Whatever may be the corruption of the text in Eitenediommenouthefias ¹⁷⁷, all the commentators, with common sense in their favour, are agreed, that the latter part of this strange plurisyllable points out the island Menûthias; and the suffrages greatly prevail in favour of making this island the Zanguebar of the moderns. Now there are three islands almost in a line, Pemba, Zanguebar, and Monfia, placed between latitude $5^{\circ} 30' 0''$ and $9^{\circ} 0' 0''$. All these islands lie (as the author asserts of his Menûthias,) about three hundred stadia or thirty miles from the coast, and there is no other island in the whole range from Gardesfan to Quiloa, which answers to this description, but these three. One of them, therefore, doubtless is Menûthias; and as Zanguebar is the centre, the most conspicu-

¹⁷⁶ $12^{\circ} 0' 0''$ alti.¹⁷⁷ $10^{\circ} 0' 0''$ alti.¹⁷⁸ See *infra* and Appendix No. iii.

ous, and the one which gave name to the coast in all ages¹⁷⁹, it is with great justice that we should give this the preference. Two additional circumstances confirm this; the Pyraláan islands are two thousand stadia previous, and Rhaptum one thousand stadia subsequent. Neither of these distances are inconsistent¹⁸⁰, if we assume Mombaça for the Pyraláan isles, Zanguebar for Menúthias, and Quíloa for Rhaptum: and that we may assign the Pyraláan islands justly to Mombaça there is great reason to believe; because they are evidently close to the continent, and not at thirty miles distance like the other three; and because notice is taken of a new cut or canal, which intimates the continent in its vicinity, and cannot apply to an island which lies in the open sea. Add to this, that Mombaça is on an island in a bay, separated by a very narrow channel from the main, and we have then a circumstance parallel¹⁸¹ to the new canal of the journal, a work which might as well have been executed for protection or convenience by the Arabs who

¹⁷⁹ Ptolemy's Zengifa is the first instance of the name. Zingi, or the coast of Zingi, is found in all the Oriental writers, and Ziozibar in Marco Polo. Zinguis are blacks or Cafres, according to the Universal History, vol. xii. and Zangue-bar the Caffre coast.

¹⁸⁰ They would suit better with Menúthias than Zanguebar; but the reason for preferring the latter is stated here, and will be considered more at large presently. N. B. Duarte de Lemos, in 1570, landed at Zanguebar and drove the natives to the mountains; a proof that it is not a low island as Menúthias is described by the Periplus. Faria, i. p. 158.

¹⁸¹ Castañeda speaks of Mombaça as an island hard by the firm land, p. 22. Olorius says, it is on a high rock with the sea almost

surrounding it, vol. i. p. 60. May not *almog* have been done away by a cut of this sort. Faria calls it an island made by a river which falls into the sea by two mouths, vol. i. p. 41. See the island delineated in a Portuguese map, Melchiz. Thevenot, vol. i. part 2. It is joined to the continent at low-water by a causeway. Marmol, lib. x. p. 150. Fr. Ed. and the Universal History writes, "The city was once a peninsula, but hath since been made an island by cutting a canal through the isthmus." Vol. xii. p. 341. This circumstance might with equal propriety, and on equal grounds, have taken place in the age of the Periplus, for the security of the ancient Arabian settlers as of the modern.

settled there in those early ages, as by those whom the Portuguese found there, three centuries ago¹⁸².

It now remains to be observed, that the preceding table manifestly proves the correspondence between Ptolemy and the Periplûs. The names of the places differ little, and both accounts terminate at Rhapta; for the Prasum of Ptolemy is not ranged under his detail of this coast, but is introduced in another chapter incidentally, bounding over seven¹⁸³ degrees at one step, without the intervention of a single circumstance or place. This Prasum he has by his own confession fixed from conjecture only¹⁸⁴; and this, with his Menûthias, clearly distinct from the Menûthias of the Periplûs, will be considered in its proper place. I must now add, for the credit of the Periplûs, that it carries that appearance of consistency with it, which would naturally attend it, if composed by a voyager from his journal, while the catalogue of Ptolemy is by no means in harmony with his commentary¹⁸⁵.

A Z A N I A, Coast of A J A N.

The Periplûs is entitled to no small share of praise for the accuracy with which it defines the limits of the territories on the coast from the straits of Bab-el-Mandeb to Rhapta; and this is the more remarkable as the demarkation of Ptolemy is not consistent with the natural

¹⁸² Mombaça was taken by Almeida.

¹⁸³ Rhapaton Prom. 8° 20' 12", Prasum,
25° 30' 00".

¹⁸⁴ See lib. I. c. 9.

¹⁸⁵ Compare lib. iv. p. 112. c. 7. with lib. i.

c. 17. where Opônè is six days' sail from Panopros or Panôn, while the latitude differs but fifteen minutes, at p. 112. Marcian, his copyist, was so sensible of this, that he has not ventured to give the stadia on this coast. See infra.

divisions of the country. The Avalitick gulph terminating at Mount Elephant, he styles the coast of the Troglodytes, but the Periplus refrains this appellation to the country that forms the margin of the Red Sea, and terminates at the fraits; and from the fraits to Cape Gardesfan, the author calls it Barbaria¹⁸⁶, corresponding naturally with the limits of the modern Adel. At Gardesfan, the kingdom of Aden¹⁸⁷ commences, the coast of which is styled Ajan, in perfect harmony with the Azania of the Periplus. But Ptolemy, who commences his Barbaria at Mount Elephant, carries the same appellation down to Rhapta, which he calls the metropolis, and consequently removes the commencement of Azania beyond the boundary which is in reality its termination. The Periplus, it is true, extends this title beyond the limits of the modern Ajan; for the coast of Zanguebar commences with Cape Baxos, or at farthest with Melinda, while the Periplus carries on Azania several degrees farther to Rhapta; by which it appears that the author was not informed of any change in the name to the utmost extent of his knowledge.

There are, however, divisions of the coast and boundaries fixed, which appear correspondent to those which the Portuguese found upon their arrival. These are preserved in a manuscript map of Bertholet's¹⁸⁸, inserted in *Reffende*, and strongly confirm the opinion that the author of the Periplus describes rather what he saw himself than what he collected from others.

¹⁸⁶ Barbaria is the constant term of Al-Edrissi, and the Oriental writers. Barbara is still a town on this coast, and to all appearance the Mofyllon of the ancients.

¹⁸⁷ An imaginary kingdom, according to

the *Universal History*.

¹⁸⁸ Bertholet dates one of these maps (for there are several by him) 1635, and writes, Petrus Bertholet primam Cosmographicum Indianorum imperium faciebat.

The first division of Bertholet comprehends the tract from the bay succeeding Cape d'Affui to Cape Baxos, answering nearly to the Opônè and Apókopa of the Periplûs.

Cape de Gardafui	-	Gardefan	-	Arômata.
Eneçada de Belha	-	Beyla bay.		
Cape d'Affui	-	Arfur, Carfur		Tabai.

Odelerto: <small>foi the MS. perhaps for Deserto, the Desert Coast.</small>	{	Enceçada da Galee	-	Bandel Caus?	-	Opônè.
		Bandel d'Agoa	-	Delgado.		
		Enganos de Surdos.				
		Cunhal.				
		Os Bodios.				
	{	Punta dos Baxos	-	Shoal Cape	-	Apókopa. Noti Cornu.

The second division takes the general name of Magadoxo from the principal town, and answers to the Little and Great Coast of the Periplûs.

Magadoxo	{	Os Balaros	-	-	} Little Coast.
		Bandel Velho	*	-	
		Magadoxo	-	-	} Great Coast.
		Mariqua	-	-	
		Brava	-	-	

The third division is by islands and rivers all the way, corresponding exactly with the number of seven rivers, as stated by the Periplus.

	Boubo, Rio 1 ¹⁸⁹ .	} Coast of Zanguebar and Melinda }	} Serapion? Nicon?
	Jugo, Rio 2.		
	Cama.		
	Tumao, Ilha.		
	Sangara, Ilha.		
	Tema, Ilha.		
	Guafta.		
Islands and Rivers	Mane, Rio 3.		
	{ Quiami, Rio 4.	}	
	{ Punta da Bagona, Rio 5.		
	{ Empaça.		
	{ Pattè, Rio 6.		
Pattè	Mandaro, Rio 7.		
	Lamo.		
	Jaque.		

Zanguebar is a native appellation given to the coast from the island of the same name. It is noticed as early as the two Arabian voyagers and Marco Polo¹⁹⁰. M. Polo calls the coast the isle of Zamzibar, and gives it a circumference of two thousand miles, evidently applying it

¹⁸⁹ It is fruitless to allot Serapion or Nicon to any particular name; but the correspondence of seven rivers in the ancient and modern account is highly remarkable.

¹⁹⁰ The doubts which were entertained concerning the authenticity of the voyage of these

Arabians, published by Renandot, have been fully cleared up. The original has been found in the Royal library at Paris, the existence of which had been confidently denied by Martin Folkes, and other very learned men.

to the then undiscovered country of Lower Africa. In the two Arabians and other Oriental writers we read the same name given to this tract, with the title of Zingis or Zingues applied generally to all the inhabitants of the eastern coast of Africa.

The first trace of this word is found in the Zengisá of Ptolemy¹⁹¹, which he places at Mount Phalangis on the coast of Ajan, answering, as far as I can discover, to the Morro Cobir of the Portuguese. It is possible that the commencement of Zanguebar and of the Zingis was placed here by the natives in that early age, or that the influence of the title extended so far. Of this, indeed, there are no traces in the Periplús. I suspect Menuthesias, the term used in that work, to be equivalent in its application to the extension of the modern title of Zanguebar, from the island to the coast.

O P Ô N È.

XIV. AFTER these general illustrations we are now to proceed to the particular places on the coast; and the first of these is Opônè, which is honoured with the title of a mart¹⁹² both in Ptolemy and the Periplús. The distance assigned from Tabai of four hundred stadja, or forty miles, makes it correspond sufficiently with Bandel-Caus, which is a bay, or, as its name implies, a port¹⁹³. Opin is a

¹⁹¹ Zengi (with the g hard) is the Persian term for Caffres, and the distinction between them and Hhabassi, Abyssinians. India Literata, Valentin, p. 385. Kiaferah, Cofari, Caffres, are in most Oriental writers distinguished in the same manner, and considered as Zinguis, opposed to Abyssinians and Arabs. There is a history of the Zingi by Novairi an Arab, in the Royal Library at

Paris. Herbelot.

¹⁹² Ἐμπόριον, in contradistinction to ὄμιος, but ὄμιος are sometimes ἑμπορίον.

¹⁹³ Bandel is a corruption of the Persian Bender, or Bunder. A very undefined term for a port, harbour, road, or landing place. The bay, or rather the falling in of the land south of Daffui, is called Galee in Ressefde and Bertholet.

name which occurs in the map of Sanfon, inserted in Marinol; but whether there be any modern authority for it may be doubted, for Sanfon was not unacquainted with the Periplus, and he may have assigned a place accordingly for the Opônè of the journal. The mention of a current setting round Tabai, or Cape d'Orfui, down this coast, is in all probability consistent with the experience of voyagers in that age; but whether this current is constant or changes with the monsoon, must be determined by those who visit this coast in different seasons of the year. Stuckius observes that, according to Belleforest, Opônè is Carfur, of which he ingenuously confesses his ignorance; but Carfur is only one of the corruptions for Cape d'Orfui, which is written Arfur, Arfar, and Arfui. And as that cape is evidently Tabai, there can be little doubt in fixing upon the next port, Caus, for the true position of Opônè.

The imports here are the same as those specified at the anchorages preceding.

The Exports are,

Κασσία.	Cinnamon, native.
"Αρωμα.	Fragrant gums, native.
Μοσώ.	Cinnamon of inferior quality.
Δελικὰ, κρέισσονα ἢ εἰς "Αἰγυπτου προχωρεῖ μαλλον.	Slaves of a superior sort, and principally for the Egyptian market.
Χελώνη πλείστη ἢ διαφορωτέρα τῆς ἄλλης.	Tortoiseshell in great abundance and of a superior quality.

The season for sailing from Egypt to all these ports beyond the straits¹⁹⁴, is in Epiphi, or July, and there are many articles of commerce regularly¹⁹⁵ imported here from the marts of Ariakè [Malabar¹⁹⁶,] and Barygáza [Cambay, or Guzerat]; such as,

Σιτος.	Corn.
Ὄρουζα.	Rice.
Βούτυρον ¹⁹⁷ .	Butter, ghee.
Ἐλαιον Σησάμινον.	Oil of Sesamum.
Ὅθόνον ἤτε μεναχὴ καὶ ἡ σαγματο- γῆνη.	Cottons, coarse and fine.
Περιζώματα.	Sashes.
Μέλι τὸ καλάμινον τὸ λεγόμενον σακχαρι.	Honey from the cane called sugar.

Many vessels are employed in this commerce expressly for the importation of these articles, and others which have a farther destination, dispose of part of their cargoes on this coast, and take in such commodities as they find here in return.

This passage I have rendered literally, as containing one of the most peculiar circumstances in the ancient commerce of this coast.

¹⁹⁴ Τὰ πέραν. See Periplus, pp. 5. 8. Τάταρον, compare.

¹⁹⁵ Συνήθως, usually, customarily.

¹⁹⁶ Malabar is properly the coast lower down towards Cape Comorin; but the whole western coast takes this name generally. Ariakè is confined to the part between Guzerat and Bombay.

¹⁹⁷ Ghee or butter in a half liquid state is

an article of trade from all the western coast of India, to the Mekran, to the Gulph of Persia, and the coast of Africa. In India it forms a part of every sacrifice, and almost of every meal; it is in as much request as oil among the Greeks. Some traveller has remarked that the taste for grease is universal, from the whale blubber of the Greenlanders to the butter of the Indians.

It manifestly alludes to an intercourse, totally distinct from the navigation of the Egyptian Greeks, carried on by the native merchants of Guzerat and Malabar, with the inhabitants of the coast of Africa, whom we shall presently find to be Arabs; it speaks of this intercourse as established¹⁹⁸, and that seemingly previous to the appearance of the Greeks in the country; and when it is immediately subjoined, that there is no potentate who has an extensive influence, but that each mart has its own peculiar sovereign¹⁹⁹, it presents a picture both of the trade and country identically the same as the Portuguese found them after an interval of fifteen centuries.

I cannot contemplate this portrait without indulging my imagination, in supposing that the East India trade existed in this form, as long before the interference of the Greeks, as it continued after the destruction of the Roman power in Egypt; and that the nature of the monsoons was perfectly known to the inhabitants of the two opposite coasts, as many centuries before it was discovered for the Greeks by Hippalus; as it continued afterwards till the arrival of Gama at Melinda.

ΑΡÓΚΟΡΑ the Less, ΑΡÓΚΟΡΑ the Greater.

XV. FROM Opônè the Periplus conducts us along the coast of Azánia, tending still more to the south west, to Apókopa the Less and the Greater. The distance is fixed by a course of six days,

¹⁹⁸ Συνηθως.

¹⁹⁹ Τυραννοι βίαις. Al Edrissi mentions the Arabs on this coast as speaking a different language from that of Arabia, and unknown to the Arabs of his age, p. 24. The fact

ought to be such, if these tribes had been upon the coast for six or seven hundred years before he wrote, as it evidently appears from the Periplus that they were.

equal, by estimation, to three thousand stadia, or three hundred miles, without any notice of an anchorage or a mart; without mention of any article of commerce as delivered or received; even in this a resemblance is preserved with the modern appearance of the coast, for our maps are as barren as the journal, and it is probable that the want of water on the shore, mentioned by Beaulieu and other voyagers, has condemned this tract to sterility and desolation in all ages.

Ptolemy mentions Zengifa next to Opônè, and places it in the same latitude with a Mount Phalangis, to which he assigns a three forked head. This character is indelible; and the observation of any voyager who may visit this coast will correct my error, if I am mistaken in allotting Zengifa to Bandel d'Agoa, and Phalangis to Morro Cobir. I find no other mountain on the coast of Ajan; and the correspondence of Apókopa the Less with the Apókopa of Ptolemy, as well as Apókopa the Greater, with his Southern Horn, gives such an appearance of consistency to both authors, that it confirms me in the arrangement I assume.

Answering to Apókopa the Less we find a Zorzella in the maps, though we have nothing either in our ancient or modern accounts to determine the relation; but the Southern Horn is manifestly a cape: it is noticed as such by Ptolemy; and the obscurity or corruption of the Periplús, which intimates an inclination to the south west²⁰⁰ at Apókopa, (however dubiously applied to the cape or river,) still proves a connexion between this place and the Southern Horn. Both also commence the following step with the Great and Little

²⁰⁰ Stuckius, p. 30. expresses the same Διέξ in the Periplús points out the Νότιον κέρα; opinion, and concludes that the mention of of Ptolemy.

Coast; and consequently, as far as we have proceeded, both are consistent with our modern accounts and with each other.

In fixing this Southern Horn at Cape Baxas, or the Shoal Cape of the Portuguese, I am not only directed by d'Anville³⁰¹, but confirmed by the detail of the coast. And that the Periplus means Apókopa for a promontory is clear from a previous passage, where, when it is stated that Cape Arômata is the most eastern point of all Africa, it is peculiarly marked as more to the east than Apókopa; a certain proof that Apókopa itself is also a promontory; and if so, there is nothing within distance north or south, which can answer to it, but the Southern Horn of Ptolemy, and the Cape Baxas of the moderns. The mention of a river³⁰² here by the author is the only circumstance for which we find no equivalent in the modern accounts.

It is worthy of remark, that the termination of ancient knowledge on the western coast of Africa was a horn as well as on the eastern; the western horn³⁰³ is a limit to the voyage of Hanno, and the geography of P. Mela, as this Southern Horn formed the boundary of the eastern coast in the age of Strabo³⁰⁴. But discovery had

³⁰¹ Geog. Anc. vol. iii. p. 62.

³⁰² The passage itself is apparently incorrect to a degree.

³⁰³ This is sometimes also called the Southern Horn, but by Mela, Hesperic Cornu.

³⁰⁴ Τελύττοις ἀκροντίστοις τῆς παραλίας; ταύτης τὸ Νότιον Κίρας. Strab. lib. xvi. p. 774. "The Southern Horn is the last promontory on this coast." But it is not quite certain that the Southern Horn of Strabo is the same as Ptolemy's, as he mentions it in one place as next but one to Mount Elephant, and in that case it would be Arômata; he has the names of several places from Artemidorus, correspondent in

some sort with those of the Periplus, which prove, that if in the time of Agatharchides the vessels from Egypt went only to Ptolemæis Thêrôn, they passed the straits in the time of Artemidorus.

* Ἄλλο τὸ Νῆλος, another Nile = Nilo Ptolemæon.

Daphnus = Daphnoon.

Libanotrophus prom. = Akannai?

Arômato-phori = Aromata?

The mention of several rivers also with Mount Elephant, &c. &c. proves the existence of a trade here and a knowledge of the coast, but it is not distinct.

advanced to Rhapta before the writing of the Periplûs, and to Prafum in the time of Ptolemy. By comparing this progress of knowledge, it seems as well ascertained that the author of the Periplûs is prior to Ptolemy, as that he is posterior to Strabo.

ΑΙΤΙΑΟΣ ΜΙΚΡΟΣ, ΑΙΤΙΑΟΣ ΜΕΓΑΣ, the LITTLE COAST, the GREAT COAST.

XVI. WE come now to the two last divisions of this navigation. The first distinguished by a course of six days, and the latter by one of seven. Six days are attributed to a tract called the Little Coast and the Great, on which not a name occurs, neither is there an anchorage noticed, or the least trace of commerce to be found. We are not without means, however, to arrange these courses, as during the last division of seven days a river is specified at each anchorage, and we can discover precisely the part of the coast where these streams begin to make their appearance. The intermediate space, therefore, between Cape Baxas and this point must be attributed to the Little and the Great Coast; and the termination of it may be fixed at the modern Brava, which corresponds sufficiently with the Effina of Ptolemy. Effina he places under the line, and Brava is only one degree to the north of it; and though little is to be built upon his latitudes, it is remarkable, that his error is greatest at the commencement of the coast, and diminishes in its progress to the south. At Gardesfan it is near six degrees, at Cape Baxas it is little more than two, and at Brava it may, by proportion, be reduced to one.

But there is another method of reducing our conjectures to certainty; which is, by taking a proportion of six to seven; in which case, if we fix the termination of the six days' sail at Brava, the conclusion of the remaining seven coincides precisely with Mombaça,
the

the correspondence of which will be established by a variety of deductions, so as hardly to leave a doubt upon the arrangement.

Within the space which is allotted to this Little and Great Coast, amounting nearly to five degrees of latitude, we find only one place noticed on our modern charts, which is Magadafho²⁰⁵. I dare not say that this has any relation to the Megas²⁰⁶ of the Greeks, but I recommend it to the enquiries of the Orientalists; for Ma and Maha signify *great* in the Shanskreet and Malay, and in this sense most probably enter into the composition of Madagascar in the neighbourhood. Of Magadafho²⁰⁷ farther mention will be made hereafter; but except in the existence of this place, our modern charts are as barren as the Periplus; even in the absence of information there is a resemblance and correspondence; and as the following division is characterized by seven rivers, which are actually found upon the coast at present, there cannot be an error of any great consequence in assuming Effina for Brava²⁰⁸, and terminating the Great Coast of the Periplus at the same place.

SERAPION, NIKON, the SEVEN ANCHORAGES at SEVEN RIVERS.

XVII. THE division we are now to enter upon requires more consideration, as we are approaching to the limits of the journal;

²⁰⁵ This name is written Macdofcho and Mocadeflou by the Arabick authors, Magadoxo and Mogadoxo in the charts.

²⁰⁶ Μεγας; METAS. I do not suppose that the Greeks translated, but that they caught at a resemblance of sound; but it is very possible that Magadafho is of a much later date.

²⁰⁷ The river at Magadafho is styled Nil-de-Mocadeflou by the Arabs. Lobo. Second Dissertation, ed. Le Grande.

²⁰⁸ Stuckius mentions Effina as the place

where Arifon built a temple to Neptune, as the boundary of his discovery, when he was sent down this coast by Ptolemy, but I find no authority for this assertion. According to Diodorus, (vol. i. p. 209. ed. Wef.) Arifon does not seem to have gone beyond the Bay of Zeyla or Gardafan, and even that is conjecture. If he had reached Effina, Strabo would have proceeded as far, but he stops at the Southern Horn. See lib. xvi. p. 774. Salmas. Plin. ex. p. 183. Stuckius, p. 30.

and more especially as I am obliged to dissent from d'Anville, which I always do with diffidence, and which I never do without compulsion, or from the imperious necessity of the circumstances described. These seven rivers, or even a greater number, cannot be a fiction. They may be seen in Bertholet²⁰⁹, in d'Anville's own map, and every good map of the coast; and they are the more remarkable, because from Cape Gardesan to Brava; a space of more than seven hundred and sixty miles, water is found at only three places²¹⁰, as far as I can discover. Among the number of these streams must be comprehended the mouths of the Quilimancè, or Grand River of d'Anville; it falls into the sea not far from Melinda by three mouths, or perhaps more, and in the islands formed by the division of the stream, or in their neighbourhood, we find Patè, Sio, Ampaça, and Lamo, obscure places, where there was some trade when the Portuguese first discovered this coast²¹¹. Here d'Anville places the Rhapta of Ptolemy and the Periplùs, neglecting altogether the Pyraláan islands and the Menúthias of his author²¹², and not observing that Rhapta must be two days' sail to the south of the latter. My own desire is, to assume these spots surrounded by the divided streams of the river for the Pyraláan islands²¹³, and to make up the

²⁰⁹ See sheet 26. MS. of Reffendè, Brit. Mus. It is not pretended that the seven anchorages can be distributed to the seven rivers, but there are seven rivers or probably more, and the general picture of the tract is all that is contended for as true.

²¹⁰ At Bandel d'Agon, north of Cape Baxas, at Dours an obscure stream where we find Bandel veijo, and at Magadafho.

²¹¹ Geog. Ancense, vol. iii. p. 64.

²¹² I sometimes think that d'Anville in this has followed Marmol, who places Rhapta at a river near Melinda, that is, the Obii or Quilimancè, lib. x. p. 146, &c. and p. 208.

²¹³ I am enabled, from Reffendè's MS. to give some particulars of these islands, which have escaped the research of the authors of the M. Universal History. Lamo, Ampaça, Patè, and Sio, lie at the different issues of the Obii or Quilimancè, in latitude $2^{\circ} 1' 0''$. The govern-

the number of the seven rivers with those separate streams which occur previously on the coast. The great river which forms these islands is called the Obii²¹⁴ by the Portuguese: they sailed up it for several days, and describe it as a magnificent stream: it possibly derives its origin from the south of the Abyssinian mountains, as the Nile flows from the northern side, and perhaps gives rise to a geographical fable of Ptolemy and the early writers, who derive the source of the Nile from a lake in the latitude of sixteen degrees south²¹⁵.

The two first anchorages of the seven are called Serapiôn²¹⁶ and Nicôn²¹⁷, both in Ptolemy and the Periplus; and it does not appear clearly from the text of the latter, whether they are to be reckoned inclusive or exclusive. I have taken them separate in the preceding table of the coast; but if they are to be included in the number, two days' sail, or an hundred miles, must be deducted

ment of all was in the hands of the Mohamédans, but there was a Portuguese custom house at Patê. Vasco de Gama first made the coast of Africa at Patê on his return from India. Ships were not suffered to touch here, unless the monsoon prevented them from getting to Mombaza. The government maintained three thousand Moors as soldiers. Cio had six hundred, and was a piratical state. Ampaza had fifteen hundred, was tributary to the Portuguese, and much attached to the nation. These were divided by different branches of the river, but Lamo was more splendid than the others, had a king of its own, and fifteen hundred Moorish troops. It was tributary to Portugal, but no Portuguese resided in the city. The trade of all these places consisted in dates, Indian corn, and provisions.

²¹⁴ See *Marmol*, lib. x. p. 208, and p. 144. Barbosa, &c.

²¹⁵ Ptolemy in 12° 30' 0", or 13° 0' 0".

²¹⁶ Whatever doubt may arise about Nicôn, from the fluctuation of orthography, there can be no hesitation in allowing that Serapiôn must be the name of an Egyptian, or an Egyptian Greek. Voyagers of this sort frequently gave their names to ports first visited by them, or had this honour conferred upon them by others; thus we have, in Strabo, the altars or ports of Pitholus, Lichas, Pythangelus, Leon, and Charimotrus, on the coast between Mount Elephant and the Southern Horn. Strabo, lib. xvi. p. 769. et seq. from Artemidorus. Cicero mentions a Serapiôn as a geographer who contradicted Eratosthenes. May he not have been a navigator on this coast? or might not a place have been so named in honour of him by a navigator? See *Epist. ad Atticum*, lib. ii. ep. 6.

²¹⁷ Ptolemy writes Niki and To-Nikê: it is only a variation of orthography.

from the total, a difference far more excusable in an ancient journal than a modern one.

These names, evidently derived from the Greeks, afford no means of finding an equivalent for either, but in regard to the seven rivers and anchorages, our evidence is complete; this intimation the reader is requested to accept for the present, till we can present him with particulars from the discovery of the moderns. The general character of the coast is clearly marked by the actual existence of the rivers, and the termination of the seven courses at the Pyraláan islands, points to Mombaça almost to a certainty.

M O M B A C A .

XVIII. THE preference due to Mombaça is founded upon a variety of combinations. It has been noticed already, that by the two divisions of this tract from Apókopa [Cape Baxas] to the Pyraláan islands, the proportion of six days sail to seven would direct us to Mombaça, and it must be observed now, that two hundred miles southward would carry us to one of the three Zanguebar islands, and another hundred miles added to this would conduct us to the neighbourhood of Quiloa; these are the distances of the Periplús to Rhapta, and at Quiloa or Capé Delgado must be fixed the limit of discovery in the age of the author. In treating of this limit, Quiloa will be generally assumed as more conspicuous, as it is a place of importance, and as it is the seat of an Arab government, certainly more ancient than the Periplús itself.

Let us now consider the peculiar characteristicks attributed by our author to Rhapta. The place, he says, has obtained this name

among the navigators who were Greeks, from the word *ῥάβδρα*, which signifies *to sew*, and was applied to this place because they found here vessels not built like their own, but small, and raised from a bottom of a single piece with planks which were sewed together²¹⁸ [with the fibres of the cocoa,] and had their bottoms paid with some of the odoriferous resins of the country. Is it not one of the most extraordinary facts in the history of navigation, that this peculiarity should be one of the first objects which attracted the admiration of the Portuguese upon their reaching the same coast, at the distance of almost fifteen centuries? They saw them first at Mosambique, where they were called Almeida's, but the principal notice of them in most of their writers is generally stated at Quiloa, the very spot which we have supposed to receive its name from vessels of the same construction.

R H A P T A.

XIX. "THE inhabitants here are men of the tallest stature and the greatest bulk"²¹⁹; and the port is subject to the sovereign of "Maphartis"²²⁰, which is in Yemen, lying between Moosa and the "straits;

²¹⁸ Προσημῆναι φαίνεται πλοικαφίον.

²¹⁹ A circumstance noticed also by Capt. Beaulieu near Cape Gardafan.

²²⁰ Νῆματα δὲ αὐτὰ κατὰ τὴν ἰκάνου ἀρχαίον ἢ πολεμικῶν τῶν βασιλείων τῶν πρώτων γυναικῶν Ἀραβίας; ἢ Μεφαρτίων Τυμῶν.

What is meant by τῶν ΠΡΩΤΩΝ γυναικῶν Ἀραβίας, I dare not pronounce. Dodwell supposes it to relate to the Roman custom of dividing provinces according to their proximity

or date of conquest, as Arabia prima, Arabia secunda: and he observes justly, that this style belongs to a later age than what I assume, i. e. the reign of Claudius. To this I answer, that the Romans never had any province at all in this part of Arabia. They ravaged the coast it is true, as they razed Aden, and they collected a tribute as early as the reign of Claudius, as appears by the account of Placanus's freedman, and so did the Portuguese upon several

“ fraits²²²; besides this power of the king, the merchants of Moosa
 “ likewise exact either a tribute²²³, or demand custom; for they
 “ have many ships themselves employed in the trade, on board of
 “ which they have Arabian commanders and factors²²⁴, employing
 “ such only as have experience of the country, or have contracted
 “ marriages with the natives, and who understand the navigation
 “ and the language.” This mixture of Arabs, Mestizes, and Ne-
 groes presents a picture perfectly similar to that seen by the Portu-
 guese upon their first arrival; and except that another race of Arabs,
 of another religion, had succeeded in the place of their more bar-
 barous ancestors, and had carried their commerce to a greater extent,
 the resemblance is complete.

The Imports here are,

Λόγχη προηρημένους ἢ τοσικῶς κα- Javelins, more especially such as
 τισκευαζομένη ἐν Μόσα. are actually the manufacture of
 Moosa.

Πελύκια. Hatchets or Bills.

Μαχαίρια. Knives.

several coasts where they had not an inch of territory; but the Romans never had a province on this part of the coast of the Red Sea, or on the ocean. If they had an Arabia prima and secunda, these must have been in Petraea, south of Jordan. It is for this reason, I think that ΠΡΩΤΗΣ has no relation to a Latin term, but belongs to Yemen, the first and principal state of Arabia Felix, the king of which was Charibael, with whom the Romans always treated, and Maphar or Mopharcites appears

to be a territory under that division. See Periplus, p. 13.

²²¹ It is a tract in Arabia mentioned next to Moosa, the capital of which is Sanaé; if we might be allowed to read Σάνα for Σάου, it would be the modern Sana, capital of Yemen, for the Periplus says, it lies three days inland; but this is highly dubious.

²²² Ὑπόβασις αὐτῶν ἔχουσι.

²²³ Σκευαζομένη.

᾽Οπήτια.

Awls.

Λιθίας ᾽Ταλλῆς πλείονα γένη.

Crown glaſs of various forts.

And to theſe commodities we muſt by no means omit to add a ſtore of corn and wine carried out by the traders, not for ſale, but for the purpoſe of entertainment, and ingratiating themſelves with the natives. This is ſo truly conſonant with the modern ſyſtem of carrying out ſpirits to America, and the coaſt of Africa, that the reſemblance ſhould by no means be ſuppreſſed.

The Exports are,

Ἐλέφας πλείους, ἤσσον δὲ τῷ Αἰθιοπικῷ.

Ivory in great quantity, but of inferior quality to that obtained at Adooli from Abyſſinia.

᾽Ρινόκερω.

Rhinoceros, the horn.

Χελώνη διάφορος μετὰ τὴν Ἰνδικήν.

Tortoiſe-ſhell of a good fort, but inferior to that of India.

Νάυπλιος ὀλίγος.

The articles of import here are nearly the ſame as an African invoice at the preſent moment; and in the exports it is ſome degree of diſappointment not to find gold. For as the fleets of Solomon are ſaid to have obtained gold on this coaſt, as well as the Arabs of a later age, and the Portugueſe, we naturally look for it in a commerce which is intermediate; and the nearer we approach to Sofala the more reaſon there is to expect it. Our preſent object, however, is not the trade but the geography.

It has been already stated²²⁶, that the measures of the Periplus accord with the degrees of latitude between Gardafan and Quiloa within five miles²²⁷, a disagreement upon twenty degrees wholly insignificant. But if it should be thought that the measure by a day's course is too vague to support the assumption of Quiloa for Rhapta, it may be answered, that in a voyage performed both ways, with the different monsoons, and repeated yearly, this estimate may be reduced almost to a certainty; far more so at least than any courses the Greeks could estimate in the Mediterranean. Ptolemy's objection to this will be considered in its proper place: for the present it is sufficient to say, that the agreement of the measures is the first principle for the assumption of Quiloa; the second is, that the peculiarities of the coast coinciding with the detail of the journal all point to the same spot; the seven days courses terminating each at a river, cannot be applicable to any tract but the coast of Melinda, comprehending the mouths of the Obii, and the termination of these at Mombaça, which is assumed either as one of the Pyralian islands, or as a place strangely marked by the title of the New Canal. One reason for placing this at Mombaça is, that a canal implies something on the continent rather than an island in the sea, and the Pyralian islands preceding this seem, therefore, naturally to be the spots enclosed and divided by the mouths of the Obii, on which Ampaça, Sio, Pate, and Lamo are placed, all parts of later date, corresponding with some of the seven courses of the Periplus. Another reason for assuming Mombaça is, that it is on an island in

²²⁶ See Table, p. 135.

but if it can be reconciled within a degree, or

²²⁷ It is not meant to build on this approximation: the charts differ considerably, even two, the correspondence is extraordinary.

a bay separated from the land by so narrow a channel that it is joined to the main by a causey at low-water²²⁶; there is a strong similarity in this to a canal cut, or supposed to be cut; but a third point we may insist upon, is still more convincing, which is, that neither the Pyralæan islands, or the New Canal (whatever it may be) are mentioned as lying at a distance from the coast, whereas the next station is expressly noticed as an isle three hundred stadia, or thirty miles off shore.

MENOUTHESIAS.

XX. THIS isle is the Eitenediommenuthesias of the Periplus²²⁷; a term egregiously strange and corrupted, but out of which the commentators unanimously collect Menuthias, whatever may be the fate of the remaining syllables. That this Menuthias must be one of the Zanguebar islands is indubitable²²⁸; for all three, Pemba, Zanguebar, and Monfia lie nearly at thirty miles from the coast, and this character is indelible. Which of the three it may be, should not hastily be determined, but it can hardly be Pemba, which is the first, or most northerly, because, if the first were touched at the others must be passed, and ought to have been noticed; neither would the distances agree, either from the new canal to Pemba, or from Pemba to Rhapta. Zanguebar as the centre and most con-

²²⁶ Marmol, vol. iii. p. 150. Oforius, vol. i. p. 50. Castañeda, p. 22.

²²⁷ See Appendix, No. iii.

²²⁸ Stuckius supposes the Pyralæan isles to answer to the Zanguebar islands, or Zanguebar itself; but it is evident the Pyralæans are near the main, and these at thirty miles dis-

tance. If it should ever be found that Pemba, in its various orthography Penda, Pendes, Pendrea, &c. bears any resemblance in a native sound or form, to Pyralæan, this question might require farther consideration; but at present I can discover no such relation. See Stuckius, p. 31.

spicuous naturally attracts our attention, and Zanguebar is assumed by Vossius in opposition to Salmasius, Stuckius, and a cloud of opponents²²⁹. Not that we must suppose Vossius prejudiced in favour of one of these islands more than another, but that it must be one of the three, and ought to be that with which the distances of the journal are most consistent. The journal is very precise on this head; it gives two²³⁰ hundred miles from the New Canal to Menûthias, and one hundred from Menûthias to Rhapta; marking at the same time the distance of the island from the main, and the return of the course from the island to the continent. A reference to the map will now shew that these measures agree with the course from Mombaça to Monfia, rather than Zanguebar, and from Monfia to Quiloa. It will be thought fanciful to suggest a resemblance between Monfia²³¹ and Menûthia; but I cannot restrain myself from the supposition, though I should not venture to fix a position on such grounds. However this may be, I shall now give the description of the island from the Periplûs, and leave it for future navigators to determine which of the two islands corresponds best with the characters that are noticed; these are, that it is low and woody, that it has rivers, and abounds with a variety of birds, and with the mountain or land tortoise. It has no noxious animals, for though it produces crocodiles, they are harmless. The natives

²²⁹ See Salmas. Flavian. Exerc. p. 1243. Vossius ad Melam. Cellariæ, lib. iv. c. 8. p. 163.

²³⁰ See Table, p. 135.

²³¹ Greater corruptors of foreign names than the Greeks there cannot be, and the first found that suggested an idea to a Greek, generally led him to find a Greek name, and

often to add a Greek tale of mythology to the name. There can be little doubt that Zoocotora is a native term of the earliest date, but the Greeks turned it into *Dioscorides* at the first step. Possibly Monfia was made Monthia in the same manner; possibly also some affinity might still be traced from the natives.

use the Rhapsa or fewen vessels²²⁵, both for fishing and catching turtle, and they have likewise another method peculiar to themselves for obtaining the latter, by fixing baskets instead of nets at the interstices of the breakers²²⁵, through which the sea retires, when the tide is going out. These circumstances, it is probable, will enable some future visitor to determine which of the two isles we are to call Menôthias; that it is one of them is demonstrable. There is some reason for thinking Zanguébar is not *low*²²⁶; whether Monfia is so, no means of information have yet occurred²²⁵, and as to the crocodiles which do no harm, I should have supposed them to be the very large lizards not unfrequent in these latitudes, if I had not observed that the journal, when treating of Zocotora, mentions both crocodiles and very large lizards which the natives eat²²⁶. Crocodiles will hardly be found in islands which cannot have rivers of any great extent or depth.

After these deductions, there is every reason to conclude, that the Menôthias of the Periplus is fixed indubitably at one of these two

²²⁵ Barbosa notices this circumstance at the Zanguébar islands.

²²⁷ Περὶ τῶν νήσων τῶν περὶ Ἰνδόν.

²²⁴ When Duarte de Lemos invaded Zanguébar in 1510, the natives fled to the mountains. Faria, vol. i. p. 158. But, perhaps, if *low* on the coast, the island may still be called *low*.

²²⁵ By referring to the maps for the form of Monfia, it appears both in Reffendé and the modern charts like a semicircle or horse shoe, enclosing a bay on the western side, resembling those islands in the South Seas which Cooke describes as a reef rearing its summit above the sea. From this form I conclude it to be

low, which is one of the characters of Menôthias in the Periplus. But I have no positive authority to depend on. Reffendé says it is the largest island of the three, and twenty-five leagues in length. MS. in the Brit. Museum, p. 103. et seq.

²²⁶ See Periplus p. 17. Σαύρα; ὄφρασι; ἴβρι. But Herodotus says the Ionians called [σαύρα] lizards by the name of crocodiles, lib. ii. Salmast p. 873. See also Laval's Voyage. Harris, vol. i. p. 703. At St. Augustin's bay in Madagascar, he says, the place was covered with an infinity of large lizards which hurt no one.

Islands, the distance from the main is such as to suit no other upon the coast; for all the modern accounts concur in giving it at eight leagues, which are geographical, and which, compared with thirty Roman miles²²⁷, approach too nearly to admit of a dispute. This is a point which has employed so much pains to settle, because the conclusion of the journal, and the limit of discovery, depend upon it; for if we are right in Menùthias we cannot be mistaken in Rhapta. The distance from Mofnia to Quiloa is as nearly an hundred miles as can be measured, and two days course of the journal is an hundred miles likewise; but we are no otherwise determined to Quiloa than as a known place, and from the supposition that the convenience of the spot might have attracted the natives or the Arabs, to fix a city here in the early ages as well as the later. The journal calls it the last harbour of Azánia, and the termination of discovery. The modern Ajan is bounded at Cape Baxos, or as others state, at the Obii, and the coast from thence to Cape Corrientes, comprehending the modern Quiloa, is styled Zanguebar; it is this coast which Marco Polo calls the island of Zanguebar, to which he gives an extent of two thousand miles, and in which he is not more mistaken than Ptolemy in his Menùthias, or in the inclination he gives this continent towards the east. The Periplus fixes its own limit without monsters, prodigies, or anthropagi; a circumstance this, above all others, which gives reason to suppose that the author visited it himself²²⁸; for the marvellous usually commences where knowledge ends, and this author indulges

²²⁷ Sixty geographical miles are equal to seventy-five Roman. Castañeda says, ten licentia. Vof. ad Melam, p. 305. leagues, p. 67.

²²⁸ Ubi definit cognitio, ibi fingendi incipit

the same passion as other writers, when he advances beyond the boundary of his own knowledge in the east; but of this more in its proper place. It is our present business to consider the site assumed for Rhapta at Quiloa, with the several circumstances that attend it.

The Periplus always employs the title of Rhapta in the plural, and notices it only as it is a mart or harbour; but Ptolemy has a river Raptum on which Rhapta stands, and a promontory Raptum more than a degree and a half farther to the south. It must be observed, that this is very much in harmony with the actual site of Quiloa, which is on an island in a bay at the mouth of the river Goavo²³⁹, with Cape Delgado at the distance of somewhat more than a degree to the south. D'Anville has assumed Delgado for the Prasum of Ptolemy, in which I should not so confidently say that he is mistaken, if I had not proved that he has totally neglected the Menuthias of the Periplus²⁴⁰, the very point upon which all our positions in the neighbourhood depend. But if the Rhapta of Ptolemy and the Periplus are the same, of which there is no doubt, then the circumstances of Ptolemy apply to Quiloa, and to no other place upon the coast. In this opinion I am not singular; for Vossius²⁴¹, as he agrees with me in mak-

²³⁹ See the Voyage of Thomas Lopez, in Ramuso, vol. i. p. 134. Fra. Quiloa nuova e la vecchia e uno finno. A proof of more establishments than one in this neighbourhood.

²⁴⁰ D'Anville supposes the Menuthias of Ptolemy to be Zanguebar. But he does not take into his calculation the site of that island, or the necessity there is for Rhapta being to the south of it.

²⁴¹ Menuthias illa est insula quæ nunc Zanguebar appellatur, huic enim omnia conveniunt quæ veteres de Menuthiade scribunt, non insule S. Laurentii, quæ plane ignota fuit Græcis ac Romanis, ut plenius alias ostendamus, Raptum vero promontorium est illud quod Quiloa vocatur. Vossius ap. Cellarium. It will be shewn hereafter in what sense Madagascar was unknown to the Greeks and Romans. See Cellarius, lib. iv. c. 8. p. 163.

ing Menúthias Zanguebar, unites also in allotting Rhapta to Quiloa.

P R A S U M.

XXI. It is now to be observed, that Ptolemy³⁴² in going down the coast of Africa, as he has the same names with the Periplús³⁴³, so has he the same termination at Rhaptum; for his Prasum and *bis* Menúthias are thrown to the conclusion of his account of Africa, and do not appear to be collected from any regular journal like this before us; but to be founded upon the report of some voyagers who had advanced farther south, in the intermediate time which had elapsed between the date of the Periplús and that of his own publication. But if it follows from this that the Periplús is prior to Ptolemy, so is there great reason to believe, that if he did not follow this journal as low as it went, it was one nearly of the same age. The hesitation with which he speaks about all below Rhapta proves that he had no regular data to proceed upon, and however he rebukes Marinus for error in his calculations, which, if adhered to, would have compelled him to carry Prasum to latitude thirty-four degrees south³⁴⁴, he himself has a method by no means more efficacious. Marinus, it seems, was upon his guard, and had reduced this excess to 23° 30' 0" south, or the tropick of Capricorn; but Ptolemy objects to this, as still too distant, and reduces Prasum to latitude 15° south, *because*, says he, the people there are black, and the

³⁴² Africa, cap. vii. table iv.

³⁴³ See Table, p. 135.

³⁴⁴ It is a remarkable circumstance that this should be nearly the latitude of the Cape of Good Hope, latitude 35° 30' 0". See Ptol.

lib. i. c. 9. The whole of Marinus's error is imputed to calculating distances by the day's course of a ship; and the chapter that contains this charge is highly curious, and worth consulting.

country produces the elephant and the rhinoceros, circumstances which occur in latitude 15° north in Ethiopia, and consequently ought to occur again as many degrees south of the equator. This method of fixing a latitude is by no means satisfactory to Ramusio; for he tells us he was acquainted with a Portuguese pilot who was well read in Ptolemy²⁴⁵, and who objected very acutely, that if this ground were admitted, the inhabitants of Spain ought to be of the same colour with the Hottentots; for the straits of Gibraltar are nearly in the same latitude north as the Cape of Good Hope south. Without insisting upon this, it is evident that Ptolemy had no data from the journals to proceed on. But when he places Rhaptum in latitude $8^{\circ} 25' 0''$ south²⁴⁶, and Prafum in $15^{\circ} 30' 0''$ south²⁴⁷, he makes but one step of seven degrees, without a feature of the coast, or a circumstance intervening, which might enable us to judge whether the voyage had ever been performed or not; but here we find a nation of Ethiopians or Negro Anthropophagi directly.

M E N O U T H I A S, of Ptolemy.

XXII. IT is opposite to this Prafum, but towards the north east²⁴⁸, that Ptolemy has placed *his* Menûthias, and at the distance of five degrees from the continent; for his Prafum is in longitude 80° , and his Menûthias in longitude 85° . His latitude of Prafum is $15^{\circ} 30' 0''$ south²⁴⁹,

²⁴⁵ As probably all the Portuguese pilots were in that age.

²⁴⁶ Latin text $8^{\circ} 36' 0''$.

²⁴⁷ Latin text $15^{\circ} 0' 0''$.

²⁴⁸ 'Αὐτὸ Σιγαίης ἠνωτάτης.

²⁴⁹ Latin text 12° . In the Voyage of Nearchus I had taken the longitudes and lati-

tudes from the Latin text, from a supposition that it was more correct than the Greek, and of equal authority; for it is not a translation, but supposed to be taken from an older and better Greek copy. A learned friend corrected some of my errors by referring to the Greek, and advised me to consult it more.

his latitude of Menùthias is $12^{\circ} 30' 0''$. It is from this latitude of 15° south, that the early Portuguese universally assume Mofambique for Prafum; and if it were so, the Menùthias, five degrees to the east, can be nothing but Madagascar. Now it is not necessary to assert that either of these assumptions is true; but, true or false, it is evident that the Menùthias of Ptolemy is different from that of the Periplus. The one is opposite to Prafum, between 12° and 15° south; the other is north of Rhaptum, and is in 9° south. The one is five degrees, the other is only thirty miles from the continent. Where Prafum is to be placed is an object worthy of inquiry, if there were data sufficient to determine it, as it is the final limit of ancient discovery to the south. I can point out no fitter position for it than Mofambique; and if the Greeks did reach that port, they must probably have heard of the great island. The name of Menùthias was possibly assigned to it, as the name of the last island known, like Thulé in the north, or Cernè on the south, for a Cernè is found as the limit of African knowledge both on the western and eastern side of the continent. Hanno, or at least those who followed him, finished their voyage at a Cernè²⁵⁰; and Pliny, as well as Dionysius, finds another in the Indian Ocean. One of the first names by which Madagascar was known in Europe was the Island of the Moon, possibly an Arabian interpretation of Menùthias²⁵¹; but Marco Polo calls it Madaster, an appellation

²⁵⁰ Hanno went farther; but in the time of Scylax Cernè was the limit. See Mr. Goussier's Recherches, tom. i. on this subject, to whose opinion I do not subscribe.

²⁵¹ It is Mo not Moe, or else I should consider this as certain. The Island of the Moon is a term sent to Europe by Covillham, in his letter to John II. king of Portugal. He says

this was the name by which the natives called it. This, as attributed to the natives, may be doubted; but it is certainly the term used by the Arabs, as appears from Al Edrissi. Madaster, the name given by M. Polo, is more likely to be the native appellation. He is the first author who conveyed this name to Europe.

which it received from the navigators of his age, who were apparently Malays rather than Chinese; and to that language we should look for the etymology of the term.

XXIII. LET us pause at this boundary of ancient discovery, and examine briefly the opinions of mankind upon the subject. To commence with our author, nothing can be more guarded or unassuming than his language. The ocean, he says, beyond Rhapta, as yet undiscovered, sweeps round with a turn to the west; for as it washes the shores of Ethiopia, Libya, and Africa in their inclination to the south west, it joins at last with the Hesperian or Atlantic Ocean. This notion is consistent with the general sentiments of the ancients on this subject; and a variety of authors, from Herodotus to Pliny, not only suppose the communication of the two oceans, but the actual performance of the voyage. If credit were due to any, Herodotus has the fairest pretensions⁴⁴³; he has certainly no intention to deceive, but was deceived himself by the vanity of a nation who set no narrower bounds to their geography than their chronology; whose kings were gods, and whose gods were monsters. The natural propensity of mankind to assert the actual performance of all that is deemed possible to be performed, is not confined to Egyptians, Greeks, or Romans. The problem of a north east or north west passage to the Southern Ocean has been exploded only within these ten years; but while it was thought practicable, the pretenders to the performance of it were as bold in their assertions as the Egyptians of Herodotus.

⁴⁴³ *Haud alio fidei primere lapsu quam ubi falsæ rei gravis autor existit.* PLINY, lib. v. p. 92.

As the Aragonauts sailed from the Mediterranean by the Palus Meotis²⁵², and the Tanais²⁵³ into the Hyperborean Ocean; or as others are said to have come from India north about by Tchutskoi²⁵⁴, and through the Wolga into the Caspian Sea and Hyrcania. So in a more recent age have we an history of a ship called the Eternal Father²⁵⁵, commanded by Captain David Melguer, a Portuguese, who in the year 1660 ran north from Japan to latitude 84°, and then shaped his course between Spitzbergen and Greenland, by the west of Scotland and Ireland, till he reached Oporto. We have a Captain Vannout, a Dutchman, who affirms that he passed through Hudson's straits into the South Sea. Another Dutchman who sailed in an open sea under the North Pole, and a John de Fuca who sailed from the South Sea into Hudson's Bay. All these accounts have been reported and believed in their several ages, convicted as they now are of falsehood or impossibility, and traced, as they may be, to error and amplification. To this spirit of vanity it is doubtless that we may refer the Persian Fable of the voyage of Scylax; the Egyptian boast of the circumnavigation of Africa; the Grecian vanity concerning the same achievement by²⁵⁶ Eudoxus and Magus²⁵⁷; and the ignorance of Pliny in carrying Hanno from

²⁵² Pliny did not quite think this impossible, lib. ii. c. 67.

²⁵³ The Sea of Asoph and the Don.

²⁵⁴ Strabo, xi. p. 518. *Ὁρις ἡ Ἰνδία, Περσικῶς ἕσσας.* See Pliny, lib. ii. c. 67.

²⁵⁵ Perouse's Voyage, vol. ii. p. 193. Eng. ed. octavo.

²⁵⁷ Those who wish to see the mendacity of Eudoxus, and the credulity of Posidonius

set in their true light, may consult Strabo, p. 101.

²⁵⁶ I am not certain whether Magus be a proper name or not, but he is one of the pretenders to this circumnavigation, mentioned by Strabo from Posidonius, lib. i. p. 32, sent by Gelu of Syracuse, and considered as an impostor by both.

Carthage to the Red Sea, notwithstanding his own journal was extant, which shews that he never passed the equator³⁵⁹.

Nothing is more easy than to affirm the accomplishment of these great attempts, where an author clogs himself with neither circumstances or particulars; but whenever we obtain these, as we do in the journal of Nearchus or the Periplus, we find indeed that the ancients performed great things with slender means; but we see plainly also what they could not do. We see, with such vessels as they had, they could neither have got round the Cape of Good Hope, by adhering to the coast, where the sea and the currents must have been insupportable, nor could they have avoided these by standing out to sea, as they had neither the means nor the knowledge to regain the shore if they had lost sight of it for a single week. It does not appear in the whole history of ancient navigation, that any voyage was performed either in the Mediterranean or on the ocean by any other means than coasting, except the voyages from Arabia and Africa to India; and back again by the Monsoons. It does not appear that there was any sort of embarkation known in the world which was fit to encounter the mountainous billows of the stormy Cape³⁶⁰; History speaks of no vessels fit for the ocean but those which

³⁵⁹ Campomanes places the Gorillas at St. Thomas under the equator, but probably without sufficient authority.

³⁶⁰ The same report which was made to M. Polo, concerning the violence of the sea beyond Cape Corrientes, is to be found in almost all the Oriental writers. In the following quotation we have the evidence of two. De fluctibus hujus maris res profusè stupenda narrantur. Inquit Al Sherif Al Edrissi ibi fluctus

multiplex affurgit instar totidem montium reciprocatorum, qui fluctus nequaquam frangitur; eoque waves deferuntur: ad insulam Kambalah, quæ in prædicto mari sita ad Al Zang [Zanguebar] pertinet, incole sunt Moslemi. Abul feda, in versione Gagnieri. MS. in Bodleiana Bibl.

We here learn that there were Arabs, Mahomedans on the coast of Zanguebar, that there was a trade thither from Arabia or the Red Sea, and that the navigation beyond was unattempted

which Cæſar deſcribes on the coaſt of Bretagne; and if the Phenicians came to our iſland for tin, aſſuredly it was a ſummer voyage. The veſſels of the Mediterranean were unfit for this ſervice, not ſo much from their ſize as their build; and if it is obſerved that Solomon and the Phenicians traded in the Red Sea, and down the coaſt of Africa, perhaps as low as Sofala, it muſt be conceded, alſo, that veſſels built at Ezion Geber could not be large, and that the danger of the voyage, as far as they proceeded, was attended with a terror, that perhaps nothing but the Phenician thirſt of gain could have ſurmounted. This terror Bruce has noticed with much acutenefs. The priſon, the ſtraits of burial, the port of death, and the gate of affliction, he remarks, are names given to the marts in the courſe of this navigation; and if ſuch was the alarm upon the mind of the ſeamen, when they viſited this tract in the favourable ſeaſon of the monſoon, what muſt it have been if they had attempted to paſs Cape Corrientes²⁶¹, and had launched at once into the ocean which ſurrounds the extremity of Africa. Cape Corrientes (ſo called from the violent currents formed by the preſſure of the waters through the narrow channel between Madagaſcar and the main²⁶²;) was the boundary of Arabian navigation when Gama firſt came upon the

unattempted on account of the mountainous ſea. See Al-Edriſſi, p. 28, et ſeq. who mentions beyond Sofala, Tehna where there is a hollow mountain, whence the waters ruſh with a tremendous roar, and a magnetick rock which draws the nails out of ſhips. Some other places to the ſouth are mentioned, but with great obſcurity, as Saion, Daudema, Gaſta, Dagutta, and Onac-Onac, the termination of all knowledge on the coaſt of Africa, and indeed of all the geographical knowledge

of the Arabs, p. 34. Such is the account of Al Edriſſi, who wrote anno 548, Hegira, or 1153, about a century before M. Polo, and apparently about 500 years after the decline of the Greek and Roman commerce from Egypt.

²⁶¹ Facile homines abſtinere ſolent ab iis locis unde vel nullus vel difficilis fit regressus. Voffius ad Mel. p. 595.

²⁶² Marmol deſcribes not only the currents, but iſlands, ſhoals, and the moſt violent winds that are known. Vol. iii. p. 106.

coast; whether the Phenicians, Egyptians, Greeks, or Romans ever reached so far may well be doubted, if they did, the Prasini of Marinus and Ptolemy may as properly be placed there as at Mosambique, but that farther they did not go is certain³⁶². The Arabs knew the coast earlier, later, and longer than all of them united; they were settled here while the others were transient visitors, and they had the opportunity of observing the seasons, winds, and currents; and what they did not dare attempt, no nation, unless possessed of superior skill, power, or resources, can be supposed to have accomplished.

XXIV. BUT from argument let us come to facts, and bold as the presumption may appear, it is not too bold to assert, that there is no evidence of a farther progress to the south, on the western coast of Africa, than that of Hanno, nor on the eastern, than that of the Periplus. In asserting this, if I detract from the authority of Herodotus, Diodorus, Ptolemy, Juba, and Pliny, it is a detraction consistent with the most perfect veneration of those great and illustrious authors, for they have all followed the reports of others, while the authors of the Periplus and Hanno speak from their own experience. It is from reports of others that we hear of a Cernè, and a Southern Horn, on both sides of this vast continent. These names were, in the respective ages, the ne plus ultra of knowledge on both sides; and whoever sailed, either from the Red Sea, or the Mediterranean, arrived at these points, as Columbus arrived at the *Indies* by taking a course directly opposite to Gama. The

³⁶² Rien n'étoit si peu avéré chez les anciens, comme on en juge par Ptolémée, que le récit qu'on faisoit de quelques navigations qui avoient tourné le continent de l'Afrique par le Midi. D'Anville, Geog. anci. tom. iii. p. 68.

Southern Horn of Ptolemy, on the eastern coast, is in latitude $4^{\circ} 50' 0''$ north, and the extreme point of Africa²⁶⁴, is nearly in 35° south, making more than thirty-nine degrees difference; the Southern Horn of Hanno, on the western coast, is in latitude 7° north, making two and forty degrees from the same extremity; but if we take both together, reckoning eighty-one degrees from one Southern Horn to the other, this is a space that Pliny reduces as it were to a point, and considers the junction of the Atlantick Ocean, as taking place almost instantly; Juba takes a much bolder flight, and reckons the commencement of the Atlantick Ocean from the Bay of Mosyllon, annihilating by this method, if it were possible, the immense triangle of this vast continent²⁶⁵, and bringing his own Mauritania almost in contact with Arabia. The particular attention of all who are curious on this subject is requested to this point, for it is upon conceptions equally erroneous as this, that too many of the ancients supposed the circumnavigation of Africa as possible as the doubling of Málea or Lilybæum. And this supposition of the possibility produced the belief of the performance. Pliny is self-evidently chargeable with this misconception, and Heródotus had probably no means of information by which he could form a judgment of the extent of Africa to the south.

It is on this ground above all others that we may assert, that the author of the Periplús visited Rhapta in person; he had not heard of Prasum, a proof that the account of it is posterior to his age; he takes no notice of the circumnavigation ever having been accomplished, a proof that he knew nothing of Heródotus, or did not

²⁶⁴ Cape Agulhas.

²⁶⁵ By consulting the map inserted in the

Variorum edition of Pomp. Mela, by Js. Gronovius, it will be seen that this is a fact.

believe his report; and he says nothing of Cernè, which is a proof that the mistake attending it, commenced from the Mediterranean and not from the Red Sea. That the general tendency of the coast was south west he saw as far as he went, and that it continued so, he might collect from the natives or the Arabs, or he might conclude the union of this sea with the Atlantick, from considering that converging lines must meet. But whatever source of intelligence he had, that he should mix nothing marvellous or extravagant with the termination, is a merit that few geographers in the ancient world can boast.

The facility with which Pliny²⁶⁶ carries his navigators round the world is rather magical than false; he annihilates space, and sinks continents under the sea. He supposes that the Macedonians in the time of Seleucus and Antiochus, sailed from India into the Caspian Sea, and that the whole Hyperborean Ocean was all but explored²⁶⁷ quite round to the north of Europe. The circumnavigation of Africa is effected with equal celerity; for this was accomplished not only by Hanno²⁶⁸ from Gades to Arabia, and by Eudoxus from Arabia to Gades; but long before Eudoxus, Celius Antipater had seen a merchant who sailed from Gades to Ethiopia. Nothing can be so unfortunate as these assertions; for we have Hanno's²⁶⁹ own account to prove he never was within forty degrees of the cape, and Strabo's authority to prove, that Eudoxus never came from Egypt to Gades by the ocean, but by the Mediterranean; and that full

²⁶⁶ Lib. ii. c. 67.

²⁶⁷ Parvoque brevis quam totus; hinc aut illius septentrio eremigatus. Ibid.

²⁶⁸ Pliny mentions the commentaries of Hanno, lib. v. c. 1. but almost as if he had not seen them, and certainly as if he did not be-

lieve them.

²⁶⁹ This is so readily admitted by common inquirers, that Mickle in his translation of the Lusid says: "Though it is certain that Hanno doubled the Cape of Good Hope." p. 2.

as his mind was of attempting the voyage, the attempt if made would have commenced from Gades, if he had found protectors to patronize his undertaking²⁷⁰. Of Cælius Antipater we can say nothing, but if he did meet with a merchant who had sailed from Gades to Ethiopia, it was certainly not the Ethiopia south of Egypt, but that on the western coast of Africa. No merchant or merchant-ship could have performed a voyage which the greatest potentates must have attempted in vain. But the most extraordinary circumstance still remains, which is, that there is in this place no mention of Heródotus²⁷¹, or the voyage he attributes to the Phenicians in the reign of Necho. This is the more remarkable as the account of Heródotus has strongly the semblance of truth, while Hanno and Eudoxus never pretended to the honour of the achievement themselves, nor was it ever imputed to them by any one who was acquainted with their real history, their situation, object, or designs.

It is with great reluctance that I controvert the testimony of Heródotus, for it is no light offence to question historical facts upon evidence of mere speculation. It must be confessed likewise, that the facts he gives us of this voyage, though few, are consistent. The shadow falling to the south, the delay of stopping to sow grain and reap an harvest, and the space of three years employed in the circumnavigation, joined with the simplicity of the narrative, are all points so strong and convincing, that if they are

²⁷⁰ Strabo, p. 101, 102, where he allows the voyage to India, but refuses all credit to Eudoxus. Euergetes, [Ibid.] he says, could not want guides to India, there were many in Egypt; which is true, so far as single persons and single ships had reached India. This question will be examined in Book IV.

²⁷¹ Bruce is so full of an East India trade,

and so fond of placing it in an early age, that he sees no difficulties in his way; and he proceeded so much upon hypothesis that he neglected history. He knows so little of the voyage of Nearchus, that he makes him sail along the coast of Ariana instead of Mekran, and come up the Gulph of Arabia instead of Persia. See vol. i. p. 456 and 470.

insisted upon by those who believe the possibility of effecting the passage by the ancients, no arguments to the contrary, however founded upon a different opinion, can leave the mind without a doubt upon the question. That different opinion I confess is mine, but I wish to state it with all deference to the Father of History, and with the profession that I am still open to conviction, whenever the weight of evidence shall preponderate against the reasons I have to offer.

I allow with Montesquieu, that the attempt commenced from the eastern side of the continent, presents a much greater facility of performance than a similar attempt from the west; for we now know that both the winds and currents are favourable for keeping near the coast from the Mozambique Channel to the Cape; and that after passing the Cape from the east²⁷², the current still holds to the northward up the western coast of Africa. But the prodigious sea, raised by the junction of the two oceans, almost perpetually, and at every season of the year, is such, that few of the fleets of Portugal, in their early attempts, passed without loss; and the danger is now avoided only by standing to the south²⁷³. The latter means of safety could not have been adopted by the Phenicians, they could not stand out to sea; and if they adhered to the coast, by all that we can now judge from the construction of ancient vessels, shipwreck must have been inevitable.

But to omit these considerations for the present, let us observe, in the first place, that the actual performance of this voyage stands upon a single testimony, and of all the circumnavigations affirmed,

²⁷² See Forrest on the monsoons, p. 10. 13. fallen in with the Ice Islands so graphically

²⁷³ In attempting which, several ships have described by the illustrious Cook.

this is the only one which will bear an argument. If it took place in the reign of Necho, Heródotus lived an hundred and sixty years after the fact²⁷⁴, and received the account from the Egyptians. That Heródotus did receive the account, must be indubitably admitted. His general veracity is a sufficient voucher. But that the Egyptians deceived him is an imputation which he does not scruple to instance in some other particulars, and of which we have the most undoubted evidence at this day. If we take the date of Necho's reign in 604, A. C.²⁷⁵, and allow that he was a sovereign attached to commerce, (as appears by his attempt to make a canal from the Nile to the Red Sea,) it will be readily granted that he must be acquainted with the navigation of that sea, and the commerce carried on there, and on the coast of Africa beyond the straits by his own subjects, by the Arabians or the Tyrians. The Egyptians had probably the least share in this, but the trade itself is to all appearance as old as Thebes, and the cause of its splendour and aggrandizement. That it was prosecuted by Solomon²⁷⁶, Hiram, and Jehóshaphat we know historically; and that it was enjoyed in all ages by the Arabians in some form or other, there is every reason to believe from the commodities found in Egypt, Palestine, and Europe. These causes, and the testimony which Agatharchides bears, that the gold mines on the coast of the Red Sea were worked by the native kings of Egypt, prove that Necho might wish to extend his knowledge down the coast of Africa to its termination, and that he might consequently send a Phenician fleet to the southward for that

²⁷⁴ The voyage ordered by Necho is placed by Blair about ante Christ.
Heródotus read his history

604

445

159

²⁷⁵ His reign begins in 616, and ends in 601. Blair.

²⁷⁶ Solomon died in 980, A. C. Jehoshaphat in 889. Necho is near 300 years later.

purpose. But that they executed their commission is not quite so easy to believe. Had this fleet no difficulties to encounter, because we read of none but the want of provisions? Can we suppose the Phenicians so superior to the Greeks in the art of navigation, as to have no dread of passing the greatest promontory in the world, when Nearchus and his officers shuddered at Mussendon, and dare not attempt Ras-el-had? Can we believe that Phenicians who had never crossed the Indian Ocean were bolder mariners than the Arabians, who trusted themselves to the monsoons? and yet the Arabians never dared to try the Mosambique current, during their neighbourhood to it for fourteen hundred years, while these Phenicians launched into it at first sight? To them the terrors of the stormy cape were no barrier, and the promontories on the western coast of the vast continent no obstacle. Were all these which the Portuguese surmounted only by repeated attempts, and by a persevering spirit exerted for almost an hundred years, to be passed by Phenicians on their first expedition, and in the course of a few months? Raise them as we please above Greeks, Romans, and Arabians in science, they were doubtless inferior in courage to them all. And whatever science we allot them, the smallest bark could have been conducted by the knowledge of a Portuguese pilot in greater safety, than the largest vessel ever fitted out of Egypt. Some admirers of the ancients, not content with supposing the execution of such a voyage, are willing to give them the means, by furnishing them with the compass, and other nautical instruments; these, it is said, were found in the possession of the Arabians, at the time the Portuguese first came into the Indian Ocean, and that they were afterwards met with in India and China. The fact is true, but

this was in the latter end of the fifteenth century, and the compass is said to have been known in Europe early in the thirteenth²⁷⁷; it had therefore passed from Italy into Egypt, and from Egypt to the Red Sea. But this argument, if it could be supported, would effectually contradict the hypothesis it is brought to support; for it would prove, that the Arabians of Mosambique, who really possessed these instruments, had never been enabled by them, nor ever dared to pass southward of Corrientes in their neighbourhood, while the Phenicians had actually circumnavigated the whole continent. Now, if the Phenicians had not the compass, how could they perform what was with difficulty performed by it? If they had it, how happened they to perform so much more by it in an early age than the Arabians in a later? But this question has been set at rest by Niebuhr, Mickle, and sir William Jones, who shew that the Arabian²⁷⁸, Indian, and Chinese compass is formed from that of Europe.

But let us now examine the text of Heródotus. The narrative of this voyage is introduced in a passage where he is giving the limits and extent of the three continents, and here he says, that Neco proved Africa to be surrounded by the ocean from the completion of this voyage. One expects, however, to hear of the officer who commanded; it was at least as great an exploit as any which the fabulous navigators had achieved. Sesonchosis, the Oriental Bac-

²⁷⁷ Arbuthnot, p. 280. from Fauchet and Guyot de Provence.

²⁷⁸ The Arabick name for the compass is *Bussola*, evidently Italian. Concerning the Chinese instrument there is some obscurity; but it was so mean a tool that it is hardly worth discussing. The probability is, that

the Malays had it from the Arabs, and the Chinese from the Malays. But the Chinese themselves claim the invention 1120 years before the Christian era; and from China some say it was brought by Marco Polo, but he does not mention it himself, and it is therefore most probably a fiction.

chus, and Hercules, whatever might be the extent of their victories, peregrinations or voyages, fell far short of this, and they were immortalised; while among the Greeks, Jason, who sailed little more than seven hundred miles, was himself worshipped as a hero, and had his ship translated to the sphere. How happened it then that the greatest discovery which the world admits, should confer no honour on the discoverer? The name of Satalpes still lives in the same page of Heródotus, whom Xerxes put to death because he attempted the same circumnavigation in vain, from the straits of Gades; and the following page celebrates Scylax of Caryanda who passed from the Indus into the Gulph of Arabia, to the point from whence the Phenicians had commenced their expedition. I have as little faith in the voyage of Scylax as in that of the Phenicians; but it is unjust that Darius should suffer the name of the inferior to survive, while Neco should totally suppress the fame of the superior. The great argument against both is the total failure of all consequences whatsoever, the total want of all collateral evidence, and the total silence of all other historians but those who have copied from Heródotus. And in his account the narrative closes with a sentence, which if it were not otherwise interpreted by his most excellent and learned editor, I should consider as throwing a tint of suspicion over the whole ³⁷⁹.

The sentence in one view seems to intimate that the Carthaginians had circumnavigated Africa as well as the Phenicians; and if that be its

³⁷⁹ The passage is, *Μετὰ δὲ Καρχηδονίων ἡσὶ ἀλιγοῦσι ἐπὶ Σατάπης καὶ Τυδάσιος* which Pauw reads *ἀπὸ Σατάπης*, and which Wesseling calls an *harriolation*, but adds, *Carthaginenses enim multis defunctis navigationibus, tentasse oras*

Africæ Atlantico mari asperius, de Satalpe nihil eos novisse. Quæ docti viri conjectura habet, quæ se commendat, lib. iv. 298. But he renders it otherwise himself, and very harshly: Larcher follows Wesseling.

real import, it can only allude to the voyage of Hanno²²⁰, which might have been deemed a circumnavigation in the age of Heródotus as readily as in the age of Pliny; and if so, it would invalidate the Phenician account as much as the Carthaginian; for if the Carthaginian voyage were false, as we know it is, the Phenician could hardly be true.

This argument, indeed, is not to be insisted on, nor the oblivion to which the name of the commander is consigned, but the difficulties of the voyage itself, the want of means to surmount them, the failure of consequences, and the silence of other historians, are objections not to be set aside without stronger evidence on the other side than has yet been produced.

But as it is not in our power to prove a negative, let us now examine the positive testimony of other authors in opposition to that of Heródotus. The author of the *Periplús* says directly, that the ocean never was explored on the eastern side to the point of Africa. Hanno gives no intimation of any one having sailed farther than himself on the western side, and Scylax²²¹, who traces the Carthaginian commerce to Cernè, maintains not only that the sea to the southward was unexplored, but that it was not passable²²². The last author we shall adduce is Ptolemy, who certainly must have

²²⁰ Wesseling doubts very justly whether the voyage of Hanno is prior to Heródotus. I can affix no date to it, but am not satisfied with Campomases's date. *Olym.* 93. Vossius thinks it prior to Homer. *Strabo*, p. 48. speaking of the African voyages of the Carthaginians says, *Μακρόν τὸν Ἰσηκίωδον ὄρισεν.*

²²¹ The work which bears his name.

²²² Though this is not true, yet his men-

tion of the weeds which obstruct the passage is a circumstance which d'Anville has seized to prove the reality of these Carthaginian voyages to the south. Such weeds do occur, and do impede a ship's way, if she has not rather a brisk wind. If the latitude where these weeds commence can be determined, it may throw a new light on these voyages of the Carthaginians.

been acquainted with Heródotus, however ignorant we may suppose Hanno, Scylax, or the merchant of the Periplus. And Ptolemy is so far from believing the report of Neco or the Egyptians, that he not only supposes the voyage never performed, but declares it impossible; that is, he brings round the continent of Africa unbroken with a sweep to the east, till he makes it join the continent of Asia to the eastward of the Golden Chersonese.

False as this hypothesis may be, it is still a contradiction direct to Heródotus; for though it proves that he was himself ignorant of every thing beyond Prasum, it proves likewise that he believed all pretensions to a progress farther south fabulous; and that where all knowledge ceased he had a right to an hypothesis of his own as well as others. D'Anville supposes that Ptolemy assumed this system from the prevailing idea among the ancients, that there ought to be Antipodes in the south, correspondent to those of the northern hemisphere. Perhaps also a counterbalance of continents was as favourite a notion in the early ages as in modern. But however this error originated, the conclusion of d'Anville is remarkable³³³: "Nothing," says he, "was less ascertained among the ancients, if we may judge from Ptolemy, than the account of some voyages which were said to have been effected round the continent of Africa by the south." And parallel to this is the opinion of Vossius³³⁴: "Certain it is, whatever may be said to the contrary, that the ancients were so far from passing the Cape of Good Hope, that they never approached it." Both these opinions are likewise supported by Strabo³³⁵, who says, "that all who have attempted this navigation either from the Red Sea or the Straits of Gades, have returned"

³³³ Geog. Ancien. tom. iiii p. 68. ³³⁴ Vossius ad Melam, p. 303. ³³⁵ Lib. i. p. 32.

[without effecting their purpose]; and yet Strabo, while he asserts this, is as perfectly assured that Africa was circumnavigable, as Heródotus. In giving these opinions of Ptolemy, Strabo, and d'Anville, I feel myself supported by the greatest authorities ancient and modern; it is hoped, therefore, that the argument here assumed will not be thought presumptuous, more particularly as it derogates not so much from Heródotus, as from the information he received in Egypt.

P T O L E M Y.

XXV. It has been already shewn by the table [p. 135.] that there is a general correspondence between Ptolemy and the Periplús, and their disagreement in particulars is not imputable to the authors themselves, but to the age they lived in. In that age the geographer did not navigate, and the navigator had no science²⁸⁶. The geographer reckoned by degrees without observation²⁸⁷; the navigator reckoned by his day's course. Modern navigators correct their dead reckoning by observation; but in the early ages science and practice had little connection: and yet so far from their being any charge of error or negligence in this, that it is exactly the reverse. We are not to condemn the mistakes of Ptolemy in longitude or latitude, but to revere the science, which applied the phenomena of the heavens to the measurement of the earth. The navigator of the present hour is conducted on principles first established by

²⁸⁶ Every seaman knows that his dead reckoning amounts to nothing till it is corrected by observation.

²⁸⁷ Ptolemy, lib. i. c. 9. tells us expressly

that he had no accounts to be depended on, *ὅτι ἕως ἂν ναυῶντες ἰσχυρῶς*, and therefore collected his latitudes from similar productions in the opposite hemispheres.

Ptolemy. The errors of his maps can no longer mislead, while his principle must be of the same duration as navigation itself. I call the principle Ptolemy's, because he fixed it and brought it into use. Thales and Anaxagoras knew that the world was a sphere. Eratosthenes drew the first parallel of latitude at Rhodes, and first measured a degree of a great circle upon the earth; Hipparchus taught that the measurement of the heavens was applicable to the earth. And Dióscorus and Marínus are both said by Ptolemy to have delineated maps on principles similar to his own; though we may judge what these were, when he says that Marínus had the latitude of some places and the longitude of others, but scarcely one position where he could ascertain both. But if Ptolemy objects to the method of Marínus, we are compelled to object to the method Ptolemy used to correct it; for he says, that in going down the coast of Africa, Marínus reckoned by the days' course of the voyagers, and finding these carried Prásum to 35° south, he shortened the estimate, and placed that promontory under the tropick of Capricorn. He then enters into a long argument to prove the insufficiency of this standard, and forms another for himself, by considering the productions of nature as similar, at equal distances, on both sides the equator; a standard certainly not less vague; and yet on this ground, and no other, he fixes Prásum in latitude 15° south. Now there is a very remarkable coincidence attends the conclusion of both these geographers; for the Prásum of Ptolemy is precisely at Mosambique, and that of Marínus at Cape Corrientes; and it is still more extraordinary that Mosambique should be the last²²⁸ of the Arabian settlements in the following ages, and Corrientes the limit of their knowledge.

²²⁸ There were Arabs lower down at Sofala, but Mosambique may well be styled the last of their colonies.

From all the evidence I can collect, and all the circumstances I can combine, I find it impossible to ascertain the site of Prasum²⁸⁹; but I have no hesitation in carrying it farther to the south than d'Anville does, or in fixing Corrientes as the farthest possible boundary to all the knowledge of the ancients. The detail of Ptolemy goes to Rhaptum and no farther; so far he had journals, and the relation of navigators to conduct him; beyond that, the voyage did not in its regular course extend; and if single vessels had at any time been carried to Prasum; by the winds and currents, it was accidental. But it should seem that it was heard of from the natives, or the Arabs, rather than seen, as all circumstances and particulars end with Rhaptum; and the remainder consists of a single step to Prasum, that is, near seven degrees, without mention of a port, an anchorage, or a single feature of the coast.

One thing, however, is certain, that the name of Prasum is familiar to Marinus, who is prior to Ptolemy, and is not known to the author of the Periplus. If, therefore, Ptolemy lived in the reign of Adrian, and we have an intervening writer between him and our author, we cannot err more than a very few years in assigning the date of the Periplus to the latter end of the reign of Claudius, or the beginning of that of Nero. There is a Diodorus Samius mentioned in Ptolemy from Marinus, who notices the course held by vessels from the Indus to the coast of Cambay, and from Arabia to the coast of Africa²⁹⁰. He asserts that in the former voyage they

²⁸⁹ There are some coincidences so extraordinary, and some contradictions so strong, that the choice is wholly at a stand. Ptolemy condemns Marinus for making five thousand stadia, i. e. five hundred miles between Rhaptum and Prasum; and yet he himself makes it seven degrees, which is almost the same thing. But if they agree in this, their difference is

still irreconcilable; for Marinus's Prasum is in 23° south, and Ptolemy's in 15°. Marinus's line of coast tends directly to the south or south west, Ptolemy's to the east. *Ἄρις δὲ ἀνατολὴν πρὸς Πάσην Ἀραβίαν*, p. 115.

²⁹⁰ Ptolemy, lib. i. c. 9. Azania the coast below Cape Gardesaa.

failed with the Bull in the middle²⁹¹ of the heavens, and the Pleiades on the middle²⁹² of the main yard, in the latter that they failed to the south, and the star Canobus, which is there called the Horse. I can find no mention of this Diodorus Samius in any other author; but whoever he is, if the date of his work could be fixed, it would go farther to ascertain the progress of the ancients, the navigation of Hippalus, and the account of the Periplus, than any discovery I have been able to make. I have reasoned only from the materials before me; and if future inquiry should develop Diodorus, it is not without great anxiety that I must abide the issue of the discovery.

Another circumstance highly worthy of attention is the argument of Ptolemy²⁹³, to invalidate the estimate of a day's course. The usual estimate he states at five hundred stadia for a day, and a thousand for a day and night; he then mentions, from Marinus, a Diogenes who was one of the traders to India, and who, upon his return, in his second voyage, after he had made Arômata²⁹⁴, was caught by the north east wind, and carried down the coast for five and twenty days, till he reached the lakes from whence the Nile issues²⁹⁵,
that

²⁹¹ Μουσουλόν.

²⁹² Κατὰ μέτρον τῶν κειμένων.

²⁹³ See lib. i. c. 9.

²⁹⁴ It may be proper to examine the moon upon this question.

²⁹⁵ That there is a great lake inland from the coast of Ajan, is a report of which we find traces in almost all the accounts ancient or modern; but where to fix it, or what it is, seems by no means ascertained. D'Anville notices such a lake on his map of Africa, and conjectures that it may be the source of the Obi, which issues at Ampaça and Patè.

Ptolemy here makes it the origin of the Nile, and places it in 10° south*, and the Nubian geographer carries to 16°, which is the latitude of the Lake Maravi, while the source that Bruce visited is in 12° north. Two and twenty degrees is surely too great a difference to suppose between the head of the White and the Blue River: neither is it probable that any source of the Nile should be south of the mountains of Abyssinia, which Rennel now says are part of the great Belt that di-

* The lakes in Ptolemy are from 7° to 10° south. The sources of the Nile are in 13° south.

that is, nearly to Rhaptum²⁹⁶; he then adds, that Marínus mentions one Theóphilus who frequented the coast of Azánia, and who was carried by a south west wind from Rhapta to Arómata in twenty days. From these facts²⁹⁷ Ptolemy argues, that as five and twenty days are attributed to the shorter course, and twenty to the longer, there can be no stated measure of a day's course to be depended on. I must own that to my conception they prove exactly the contrary; for though a day's course is certainly indefinite, where winds are variable, we now know that both these voyagers must have been carried by the two opposite monsoons, and that Diógenes lost his passage by not arriving at Gardesfan early enough to get into the Red Sea; consequently he was hurried down to the south, and could not get into port till he was somewhere about Patè or Melinda. The difference itself of twenty-five and twenty days is not so great as to insist upon with severity, and we must likewise add, that both voyages seem in consequence of surprize, and not the ordinary course of the navigation. Mariners do not now, and certainly could not formerly,

vides Africa, this indeed is not impossible, as the Indus and the Ganges both cut the great belt of Asia; but it is highly improbable, on account of the vast space between. Neither does it make Ptolemy consistent; for though d'Anville still preserves Ptolemy's sources of the White River in his map, and Rennell does not discard them. The lakes of those sources are placed in 6° north by d'Anville, and in a very different longitude from Ptolemy's, while this lake of Ptolemy's is in 10° south. And here d'Anville has a lake also, but of which he speaks with great uncertainty. See Ptol. lib. i. c. 9. But Ptolemy, in the 17th chapter, expressly states that this lake is not near the

coast but far inland. D'Anville's earliest notice of this lake, called Maravi, is in a map which he composed for Le Grande's translation of Lobo, in 1728.

²⁹⁶ Ptolemy says, the Promontory of Rhapta was a little to the south west.

²⁹⁷ The facts are so curious that I have great pleasure in stating them to the reader, and proposing them to the consideration of any English officer who may be accidentally brought on this coast. I must notice also that Diógenes and Theóphilus are both Greek names; a leading proof that even under the Romans, this trade was chiefly in the hands of Egyptian Greeks.

reckon by an individual, but a general run; and when they are in the sweep of the trade winds or the monsoons, though the force of the wind is not perfectly or constantly equal, it is so generally subject to calculation, as to vary but a few days in very extensive passages. This sort of estimate all seamen have in such voyages, and on such coasts as they frequent. And those who know how nearly the computation of all seamen approaches to the truth, will certainly allow more precision in the accounts of Marinus and the Periplus before us, than Ptolemy is willing to concede. On this point we have a most remarkable coincidence to notice; for as Marinus states the passage of Diógenes from Arómata²⁹⁸ to the lakes at five and twenty days, the Periplus assigns exactly the same number from Opónè²⁹⁹ to Rhaptum upon a distance as nearly equal as possible. The conclusion from this is incontrovertible; for it has already been shewn, that the courses of the journal agree with the actual extent of the coast, and if the passage of Diógenes agrees with the day's courses, it is impossible to admit the scepticism of Ptolemy.

But, from his rejection of the estimate, we may proceed to his contradiction of the facts; for in his seventeenth chapter he controverts the whole account of Marinus³⁰⁰, and as far as we can collect, his account was in union with the Periplus. The reasons for admitting the statement of the Periplus are contained in the whole of the preceding pages. The reason for doubting Ptolemy is, that his account is not consistent with his own detail of the coast,

²⁹⁸ From Gardesau to Melinda or Paté.

²⁹⁹ From d'Assai to Quilon.

³⁰⁰ I had once conceived an opinion that Marinus might be the true author of the Peri-

plus, from finding his great agreement with it, and that the objections which Ptolemy brings against Marinus in the seventeenth chapter apply very nearly to the Periplus. But I am convinced

coast²⁰¹, nor consonant to the knowledge of it, which we have at present. He sets out with saying, that the merchants who trade between Arabia Felix and Arômata, Azánia, and Rhapta, give a different statement from that of Marínus. They mention that the course from Arômata to Rhapta is south west; but from Rhapta to Prasum south east. This indeed would hold good for a small bend of the coast, but upon the seven degrees which Ptolemy assigns to the interval is directly false; for the general inclination from Gardesfan to the Cape of Good Hope is south west upon the whole; and this turn which he assumes to the south east, seems only to prepare it for the curve he gives it all round the Antarctic Ocean. He then adds, that the village Panôn is next to Arômata, and that Opônè is six days from Panôn. If there be not a corruption of the text here, or a great error in our construction of it, this is in direct opposition to his own table as well as the Periplus. For his table gives only five minutes difference between the two. He next mentions Zengifa, Mount Phalangis, and the bay called Apócopa, which it requires two courses of twenty-four hours to pass. Then the Little Coast of three similar courses, and the Great Coast of five; then two more to Essina, one to Serápcion, and three more across a bay to Rhapta. Niki, he adds, lies at the commencement of this bay next to Serápcion. And last of all he notices a river called Rhaptum, with a city of the same name, the metropolis of Barbaria, with a vast bay which must be passed to reach Prasum, where the sea is very shoal²⁰², and round Prasum is the country of the Anthropophagi. Now the

convincd this opinion cannot be defended, for Marínus was no navigator, but a geographer; and Marínus knew or had heard of Prasum, which the author of the Periplus certainly had not.

²⁰¹ Page 111.

²⁰² So also says Marcian, Βραχία θάλασσα, p. 8.

meaning of this language, if I understand it right, is, that at Rhap-tum is the last settlement of the Arabs, and that Prasum is in the country of the Negroes, for so I interpret Anthropophagi. This is not expressed indeed, but is so perfectly consistent with the Periplus that it can hardly be disputed.

The difference that there is between this detail of the coast and that of the Periplus, will be best seen by consulting the table (p. 136.); but whatever it may be, it contributes more to establish that journal by its general concurrence, than it detracts from it by disagreement in particulars. It appears to me, whether from predilection to my author, I cannot say, that Ptolemy had a journal before him but a worse. I see the correspondence between the two, but more consistency in the Periplus. I see likewise more circumstances in this, more characters, and more intelligence, which persuades me that it is written by one who performed the voyage, while Ptolemy relates after another. The reasoning, therefore, which he builds on this, to correct Marinus, appears of less weight; for we find all the distances of the Periplus correspondent to the actual nature of the coast at present; and whatever failure there may be in the application of it to particulars, the leading characters, such as the Straits of Bab-el-Mandeb, Ras-Feel, Gardesfan, Daffui, Cape Baxas, the Coast of Seven Rivers, and the Zanguebar Islands are so clear and manifest, that the outline may be considered as perfect, whatever error there may be in the filling up. To my own mind the evidence is complete; but every author who compiles from the labours of others, without visiting the countries of which he treats, must subject the speculations of the closet to the determination of navigators on the spot. To this law I submit my inquiries most cheerfully, soliciting information

information without fear of the result, and ready to stand corrected by every intelligent officer who will make this work the companion of his voyage. One farther observation is all that remains in this part of my discussion, which is, the peculiarity that Prafum, signifying Green, should point out a green cape for the termination of ancient knowledge on the eastern side of the vast continent of Africa, while another Green Cape (Cape Verde) should have been for many years the boundary of modern navigation on the western side. If I am not mistaken, Cape Verde has its name from its verdant appearance when first seen by the Portuguese; otherwise it might have been thought that those who first reached it had annihilated the great triangle like Juba and Pliny, and thought they had arrived at the Green Cape³⁰¹ of the ancients. This will not appear an idle observation to those who are conversant with the ancient geographers, and who know that they found, as already noticed, a western Horn and Cernè on both sides the continent, and a Thulé from the Orkneys to the Pole. But there is another view in mentioning it, which is, that some future navigator, with this clue to direct him, may, when he is going up the Mosambique passage, still find some characteristick greenness, either in the colour of the sea, or on the continent, which may enable him to point out the Prafum of the ancients. This is a point I cannot ascertain to my own satisfaction, but it cannot be farther south than Corrientes, nor farther north than Quiloa or the Zanguebar Islands. English ships generally leave the coast before they are so far north, but accident may carry some

³⁰¹ Πρασιν signifies a Leek, but it is also may possibly allude to such weeds found in used for a sea weed of the same colour, and this sea.

curious observer to the spot, which he may recognize, by knowing previously where he is to search, and what he is to search for.

DISCOVERIES of the PORTUGUESE.

XXVI. WITH vessels of the most perfect construction to encounter all the dangers of the sea, with instruments of all kinds to ascertain the place of the vessel, with officers equal to every service, not only from their intrepidity but their skill, a voyage performed in three years from Europe to the Red Sea, round such a continent as Africa, for the first time, would have added no small degree of lustre even to the reputation of a Cook: and yet such a voyage is imputed to the Phenicians in an age when they had neither charts or instruments, when they had no vessels fit for a navigation beyond the Red Sea, or the limit of the monsoons. But to judge of the difficulty of such an undertaking for the first time, we cannot form our estimate upon better grounds, than by a brief recapitulation of the obstacles surmounted by the Portuguese, and by observing that the attainment of the same object cost them almost a century, which the Phenicians are said to have reached in the short space of three years.

Of the progress of this discovery it will be necessary to trace little more than the dates³⁰⁴. Prince Henry, fifth son of John the first, king of Portugal, took up his residence at Sagrez, near Cape Saint Vincent, about the year 1406. The history of his discoveries is familiar to every one, but, like the history of all others who are the

³⁰⁴. See *Fasia* and *Oforius* in *init.* Barboza and Alvarez, in Ramuño, Bruce, Mickle's *Lusit.*, and Castaneda.

favourites of mankind, it is not sufficient to give him his due merit, which is superlative, but it must be enhanced by hyperbole. It is not true that in his day there was no geography but in the poets³⁶⁵, that he is the inventor of the astrolabe³⁶⁶ and the compass, or the first that put these instruments into the hands of mariners: but he was bred a mathematician, and he procured the best charts and best instruments the age afforded. He improved upon or corrected every one of them, and he taught³⁶⁷ the application of them in the best manner to the commanders employed in his service.

This great man, with one object always in his mind, distracted by no other cares of the world, never married, never incontinent, was determined, by his regard to religion, to subvert the power of the Mahometans, and by the love of his country to acquire for her that trade which had enriched Venice and the maritime states of Italy. These were his views, and this was his merit. It was not accident but system that carried the fleets of Portugal to the East Indies, and Columbus to the West. When Henry first commenced his operations, Cape Nun, in latitude 28° 40' 0", was the limit of European knowledge on the coast of Africa. This Cape is just beyond the boundary of Morocco, and the Portuguese knowledge of it was derived from their wars with the Moors of Barbary. Com-

³⁶⁵ Bruce and Mickle.

³⁶⁶ See on the Astrolabe, note infra.

³⁶⁷ I cannot help mentioning a circumstance which contributes much to our national honour. Pietro della Vallè who sailed both in English and Portuguese ships in the East Indies about 1620, observes that the Portuguese masters and pilots made a mystery of their knowledge, whereas on board the Eng-

lish ships all the youths on board were summoned to take the observation at noon; their books and calculations were then likewise corrected. Purchase mentions this in some instructions given by the merchants to the commanders they employed; and here, perhaps, we may trace a cause why the science has always been increasing among the English, and declining among the Portuguese.

mencing

mencing the line of his discovery from hence, in 1418 two of his officers reached Cape Boyador, in latitude $26^{\circ} 30' 0''$. The same effort restored to geography the Canaria of Pliny, or gave that name to the islands which retain it still, and lie between Nun and Boyador. Boyador, however, was not doubled till 1434. It was, says Faria, a labour of Hercules; and it was not till 1442 that the discovery was advanced to Rio-del-Ouro, under the tropick of Cancer. This name points to the acquisition of gold; and history mentions that the dust of that precious metal was here first offered as a ransom for some of the natives who had been taken prisoners. Upon the return of these vessels to Portugal²⁰⁸ the sight of gold produced an emotion much more effectual than all the exhortations of Prince Henry had been able to excite; a company²⁰⁹ was immediately formed at Lagos, and the progress of discovery was ensured whether Henry had lived or died. This is the primary date to which we may refer that turn for adventure which sprung up in Europe, which pervaded all the ardent spirits in every country for the two succeeding centuries; and which never ceased till it had united the four quarters of the globe in commercial intercourse. Henry had stood alone for almost forty years, and had he fallen before these few ounces of gold reached his country, the spirit of discovery might have perished with him, and his designs might have been condemned as the dreams of a visionary; but he lived till 1463, and in the years 1448 and 1449 had the satisfaction to see his discoveries extended

²⁰⁸ Bruce observes, this must have come from the country farther south, vol. ii. p.

²⁰⁹ It will appear hereafter that a John Diaz was one of the first partners of this Company, and from him several of the family

were employed in the future discoveries, till the time of Bartholomew Diaz, the first circumnavigator of Africa, in 1487. Thus was the connexion formed between the discovery of Rio-del-Ouro and the Cape of Good Hope.

to Cape Verde, (in latitude $14^{\circ} 45' 0''$;) to the Cape Verde islands and the Açores. This cape was likewise doubled, and some progress is supposed to have been made as far south as to the equator, but Cape Verde may be considered as the limit of Henry's discoveries. He is deservedly³¹⁰ celebrated by all writers as the reviver of navigation, and the great founder of that commerce which has raised the maritime power of Europe above all the other nations in the world.

After the death of Henry his designs languished during the reign of Alonzo, but the spirit of adventure was not suppressed. In 1471 the discoveries extended to Cape Gonzales beyond the equator, and terminated with this reign at Cape Saint Catherine, in latitude $2^{\circ} 30' 0''$ south³¹¹. John the second succeeded to the throne in 1481; and revived the pursuits of Henry with all the ardour of their author. In 1484 his fleets reached Congo and penetrated to 22° south. It was in Benin that the first account of Abyssinia was received, and nearly about the same time John sent out Bartholomew Diaz with three ships, who first circumnavigated the extreme point of Africa, and dispatched Covilham in search of India by Egypt and the Red Sea. The date of Diaz's expedition is fixed in 1486, nearly eighty years after the commencement of Henry's plan, and the expedition of Covilham is assigned to 1487³¹². I have recapitulated these facts and dates not for the purpose of repeating a history known to every one, but that the reader may compare the difficulty of prosecuting this dis-

³¹⁰ Mickle xxxix. from Faria; vol. i. p. 21. See his character, p. 18.

³¹¹ Faria, vol. i. p. 20, 21.

³¹² These dates are of consequence; because Bruce, vol. ii. p. 108. supposes Diaz to have

failed in consequence of Covilham's intelligence, which is directly contrary to the testimony of Faria, Castaneda, Alvarez, and Mickle. When Covilham wrote he certainly did not know of Diaz's success.

covery by the Portuguese, with the facility attributed to the attempt of the Phenicians, in their three years' navigation.

But Covilham³¹³ is a name of such importance, his history so extraordinary, and his account so connected with the Periplus, that to pass him in silence would be an unpardonable omission. John II. in the beginning of his reign had sent two friars, one of the order of St. Francis, and the other John of Lisbon, with a third who was a layman, into the East³¹⁴, in order to discover India by land. These travellers went, for want of the Arabick language, no farther than Jerusalem. In the year 1486 or 1487³¹⁵, he therefore sent John Pedroio de Covilham and Alonso de Payva on the same service; and after them two Jews, Abraham of Beja and Joseph of Lamego. As nothing can shew the solicitude of the king more than these circumstances, so nothing can prove his penetration more than this choice of Covilham; he was a soldier, he had served in Africa, had been an ambassador to Morocco, and had acquired the Arabick language to perfection. In obedience to his sovereign he departed from Lisbon³¹⁶, and took the route of Barcelona and Naples, and thence by Rhodes and Alexandria to Cairo. He there joined a party of Mograbin³¹⁷ Mahometans, and went in their company to Tor, Suakem, and Aden. At Aden he embarked for Cananor on the coast of Malabar, and visited Ormuz, Goa, and Calicut. He *saw*

³¹³ Called de Covilham from the name of his birth place. Oseorius always writes John Petreio. See vol. i. p. 147.

³¹⁴ Castaneda, p. 2.

³¹⁵ I collect that Covilham entered Abyssinia in 1488 from Alvarez in Ramusio; for

Alvarez says he confessed him in 1521, thirty-three years after he had entered the country.

³¹⁶ Alvarez in Ramusio, vol. i. p. 191. 237. et. seq.

³¹⁷ Moors of Barbary, Western Arabs.

the pepper and ginger³¹⁸, *he heard* of cloves and cinnamon. After this he returned to the coast of Africa, touched at Zeila, and went down the coast as low as Sofala, the last residence of the Arabs, and the limit of their knowledge in that age, as it had been in the age of the Periplus. The Arabs of Covilham's age knew indeed that the sea was *navigable to the south west*, as their earlier countrymen did when the author of the Periplus was in the country, but they *knew not where it ended*. With this intelligence, and what he could collect of the Island of the Moon, or Madagascar, he returned by Zeila, Aden, and Tor to Cairo. At Cairo he met the two Jews, Abraham of Beja and Joseph of Lamégo, by whom he sent an account of the intelligence he had collected to the king, and in the letter which contained it, he added,

“ That the ships which sailed down the coast of Guinea might
 “ be sure of reaching the termination of the continent, by persisting
 “ in a course to the south; and that when they should arrive in the
 “ Eastern Ocean, their best direction must be to inquire for Sofala
 “ and the Island of the Moon.”

It is this letter above all other information which with equal justice and with equal honour assigns the theoretical discovery to Covilham as the practical to Diaz and Gama; for Diaz returned without hearing any thing of India³¹⁹, though he had passed the cape; and Gama did not sail till after the intelligence of Covilham had ratified the discovery of Diaz.

³¹⁸ What a testimony do these two words give of his veracity, and what a variety of connected circumstances do they suggest to those who know the country, the trade, and the designs of John? Alvarez seems to write what Covilham dictated. Alvarez, p. 237.

³¹⁹ Castaneda, p. 2.

Covilham was not to receive the reward of his services; one part of his commission he had not executed, which was, to visit Abyssinia; he returned, therefore, from Cairo to Ormuz, and from Ormuz once more to Aden, where he waited till he found the means of introduction into Abyssinia. Here he was received with kindness, but hence he was never to return; for in Abyssinia he was found by Alvarez²²⁹ the almoner to the embassy of John de Lima, in 1525, who observes that the king had given him a wife and lands, and that he was beloved by the people as much as by the sovereign; but that his return was for ever precluded. He solicited John de Lima, and John interceded with the king in vain. I dwell with a melancholy pleasure on the history of this man, (whom Alvarez describes still as a brave soldier and a devout Christian,) when I reflect upon what must have been his sentiments on hearing the success of his countrymen in consequence of the discovery to which he so essentially contributed. *They* were sovereigns of the ocean from the Cape of Good Hope to the Straits of Malacca: *he* was still a prisoner in a country of Barbarians.

There is a circumstance attached to the history of Covilham of great geographical importance, which is the map or chart committed to his charge by Emanuel, at that time prince²³⁰ and afterwards king of Portugal, which was copied and composed by the licentiate Calzadilla, afterwards bishop of Viseo, a doctor Rodrigo, and a Jew named Moses, with great secrecy in the house of Peter

²²⁹ See the work of Alvarez in Ramusio, vol. i.

²³⁰ Duca. See Castaneda, p. 1, 2, 3. Alvarez in Ramusio, vol. i. p. 236.

of Alcazova. This map²²² was put into Covilham's hands with orders to make his way, if possible, into Abyffinia, and discover whether there was a passage round the extremity of Africa, which the framers²²³ of the map asserted to be practicable, on the authority of some obscure information which they had collected.

Bruce asserts²²⁴ that Covilham sent home from Cairo a map which he had received from a Moor in India, in which the Cape, and all the cities round the coast were exactly represented. But whence Bruce draws this account I cannot discover; and if there was such a map among the Moors it must be a fiction, for none of them had ever passed Corrientes by sea; and cities there are none²²⁵ for

²²² I imagine it is the composition of this map which has induced Mickle to say, that the Astrolabe was invented by two Jews, Rodrigo and Joseph at Lisbon; and I have little doubt that the usage of the word Astrolabe deceived him, or the author from whom he copied. The primary meaning of Astrolabe was an annular sphere. Ptolemy reduced this to a planisphere; and yet the name of Astrolabe continued till it became applied to maps like his in stereographick projection. The Sea Astrolabe is a different instrument, for taking the altitude of the sun, stars, &c. It is a ring with a moveable index. See Chambers's Dictionary, *in voce*. This last sort of Astrolabe is described in Chaucer's treatise on that subject, which bears date 1391; so that if Mickle means this instrument, it could be no invention of the Jewish doctor's. See Chaucer, Urry's edition, p. 440. and that he does mean it, I refer to his own words, *Lufiad*, p. 193. Note P. where he quotes di Barros, Dec. i. lib. iv. c. 2. I cannot refer to di Barros; but in Alvarez (Ra-

musio, vol. i. p. 236.) I find the circumstance of this map by Castadilla, with the name of Rodrigo and Moses the Jew, whom I suppose to be the Joseph of Mickle. Purchas, vol. ii. b. ii. p. 8. speaks with much more propriety; he says the Astrolabe was applied formerly only to astronomical purposes, but was accommodated to the use of mariners by Martin Bohemus, a scholar of Regiomontanus, at the suggestion of John king of Portugal.

²²³ Et dipassare un di loro nell' Ethiopia a vedere il paese del Prete Gianni et se ne i suoi mari fusse notizia alcuna che si posse passare ne mari, de ponente, perche li detti Dottori dicevano haverne trovata non so che memoria.

²²⁴ Vol. ii. p. 108. Castaneda, p. 3. says that Covilham set down the names of places in the chart he carried with him, *albeit ill written*.

²²⁵ "Howbeit there appeared unto them no townes within this land, by reason that along those coasts there are none situated." Castaneda, p. 8. "but further within there be townes and villages."

almost twenty degrees from Corrientes to the Cape, or from the Cape for twenty degrees to the northward on the western coast.

That fictitious maps of this sort might exist both in the Indies and Europe, among Mahometans³²⁶ and Christians, is highly probable, for it was a prevailing notion in all ages, that Africa was circumnavigable. And it has been repeatedly noticed in this work, that on both coasts, when the voyagers reached the limit of discovery, the report of the place was always in favour of a passage. We may allow even more than this, and say, that the natives had gone³²⁷ by land much farther to the south than the navigators by sea; and that their accounts were almost unanimous in maintaining the same assertion. The strongest evidence I have found of this is that which the Portuguese afterwards report of Benomotapa; a great nation when *they* arrived in Africa, and the remnant of a much greater, which had possessed cities of great extent and regular buildings; and from which it was said there were public roads running far to the west and quite down to the Cape³²⁸. We are not to believe these reports, perhaps, in their full extent; but the ruins of great buildings seem authenticated; and the existence of gold and gold mines is universally asserted. Here is Bruce's Ophir³²⁹,

³²⁶ The communication between the Oriental and Atlantick Ocean seems to be intimated in Abulfeda, (p. 50. Gagner's translation, MS. in the Bodleian,) but it is so obscure that I am not certain that I comprehend it even in the translation.

³²⁷ This seems to appear from Al Edrissi, p. 28. et seq. where he mentions Sofala, and several other places beyond it with great obscurity.

³²⁸ See Ed. Barbosa in Ramusio, vol. i. p. 288. et seq. Barbosa mentions such a road:

that it went far south may be very true; but hardly to the cape.

³²⁹ Pere Dos Santos in Lobo's history of Abyssinia, finds a Fura or Afura inland from Sofala, and concludes it to be Ophir. p. 261. Fr. ed. He finds also all that Solomon brought into Judea except peacocks; but his commentator observes that Thukkiim, the Hebrew term, may be translated peroquets as well as peacocks. I leave the voyage to Ophir for the discussion of others, observing only that the circumstances attending it are in favour of Africa, though Gosselin confines it to Sabæa.

the tradition of the queen of Sheba³²⁰, the coast of Sofala, and the great river of Cuama.

Such a nation as this, while in a flourishing state, we can suppose to have extended its communications far to the west and to the south, with roads both ways as far as their caravans could find purchasers to invite them. With this nation the Mahometans of Sofala and Mosambique must of necessity be connected; and if they had a map or chart of the cape, from the information of this nation it must have been collected. It is the mention of cities in this map which alone makes us suspect that it was the product of their own imagination. Maps of this sort are supposed to have been framed as readily in Europe as in Asia. And one of these Mickle speaks of in the introduction to his translation of the *Lusiad* in the following terms:

“Antony Galvan relates³²¹, that Francisco de Soufa Tavares told him, that Don Ferdinand told him, that in 1526 he found in the monastery of Acobaça a chart of Africa an hundred and twenty years old, which was said to be copied from one at Venice, which also was believed to have been copied from one of Marco Polo, which, according to Ramusio, marked the Cape of Good Hope.”

Mickle considers this as a mere report calculated to deprive prince Henry and the kings of Portugal of the honour of the discovery; and its date of 1526, almost thirty years after the discovery had

³²⁰ This tradition might well extend to this country before the arrival of the Mahometans on the coast, from the early Arabs, and much more strongly from the Abyssinians, who in their better days do certainly appear to have

had conquests in Arabia, and connections with Egypt, and in the interior of Africa to the west and south.

³²¹ *Introd.* p. xxxiv.

actually taken place, affords full ground for the suspicion. But let us suppose that the depicted travels of Marco Polo, which adorned one of the churches at Venice³²², actually contained the Cape of Good Hope, or rather the extreme point of Africa, it proves nothing. It shews only that the prevailing notion of the circumnavigation prevailed at Venice, as it had done many centuries before in Greece and Rome, and that it was inserted into this chart from the imagination of the draftsman.

Marco Polo³²³ himself was too wise and too faithful a traveller to assert this. We have his work; and we find his language perfectly in harmony with that of Scylax and the Periplus. "Beyond the islands of Magastar and Zanzibar," says he, "there is no farther navigation southward"³²⁴, because the sea runs there with great velocity to the south, so that it would be impossible for any vessel to return." It must be here noticed, that as he writes Magastar and Madaftar for Madagascar, so under the name of Zanzibar he comprehends the main coast of Africa, which still takes the same name, and carries it to the extent of two thousand miles. Whatever error there may be in this, his mention of the current

³²² In the church of Saint Michael de Murano near Venice. Ram. vol. ii. Dichiarazione, p. 17.

³²³ There was a Portuguese version of Marco Polo published in Portugal in 1502, by a gentleman of the court, attendant on Eleonora, queen of Emanuel, who likewise published the account of Nicolas des Contes or Conti, and of Hierome de Saint Etienne. This publication, in 1502, makes it highly probable that Marco Polo's work was known in Portugal previous to the voyage of Diaz, and was now published when it could not in-

terfere with the glory of the discovery, and might give information of the countries in the east.

³²⁴ It is to be observed that the reading of this passage is very different in Ramusio from that of Bergeron. But both agree in stating the impetuosity of the current to the south. I have followed Ramusio, as I always do, in preference to other translators. See Ramusio, vol. ii. M. Polo, lib. iii. c. 35. Bergeron, cap. 39. See the account of this map, Ramusio, vol. ii. Dichiarazione, p. 17.

between Madagascar and the continent is an illustrious truth, the more remarkable as M. Polo was never on this coast himself, but must have derived his knowledge of the fact from the Malays or Arabs, who were the only navigators of the Indian Ocean in his age. And the reason assigned for their not passing to the south, though they knew there were [lands or] islands in that quarter, is the very same which the Arabs of Sofala and Mofambique gave to the Portuguese at their arrival on the coast. The whole of this is consistent with the knowledge of the Greeks and Arabs, which terminated at Præsum; and in all ages the current of the Mofambique Channel appears to have been an insuperable barrier to all but the Phenicians of Herodotus.

Such is the account of Marco Polo himself, and let us next consider the celebrated map of his travels which was preserved at Venice, and which was probably one of the most efficient causes which led to the discoveries of the Portuguese. Ramusio has preserved the history of this, and as his book is not in every body's hands, the reader will perhaps be gratified by the insertion of his account.

In the church of St. Michael di Murano near Venice, there was a case³¹⁵ or cabinet near the choir, which contained this map that attracted the particular notice of all travellers who came to Venice. The map was composed by a lay-brother³¹⁶ of the convent, from another map or chart which had been brought home by Marco Polo and his father, on their return from Tartary³¹⁷. The original had been disfigured, and brought into disrepute by the insertion of a variety of things too modern for the age, and ridiculous in their

³¹⁵ Armara, Armoire.

³¹⁶ Converso.

³¹⁷ Cataio.

appearance³²⁸; still it was evident when the work of M. Polo came to be read again and considered, that this map and chart was composed by him or under his direction. The artist therefore who undertook to copy and reform it, leaving out the absurdities, and adding the longitude and latitude, which the original had wanted, framed the map which is now preserved in the church of St. Michael, and which is visited as the composition of Marco Polo himself. In this map a variety of curious particulars are observed, unknown before, or at least to the ancients; and more especially that towards the Antartic circle, where Ptolemy had placed his unknown southern³²⁹ continent without sea; there appeared in this map, made so many years ago, the sea surrounding the extremity of Africa, so that a passage from the Indian Ocean into the Atlantic seems to have been known in the time of Marco Polo, though there was no name given to that promontory which the Portuguese afterwards called the Cape of Good Hope.

Three questions arise out of this account, 1st, Whether the delineation of the Cape in the copy is a proof that it existed in the original. 2dly, Whether this copy is the original from which the bishop of Viseo's map or chart was taken, which was delivered to Covilham; and 3dly, Whether the bishop of Viseo's map is that which is mentioned by Bruce.

First. It certainly does seem probable that the report concerning the termination of Africa in a cape was as current in Asia and the Indies as in Europe. That either the Chinese or the Malays did

³²⁸ As the old maps contain monsters both on land and sea, so it is highly probable the Ruck of M. Polo, lib. iii. c. 35. and Griffins,

&c. might have been the additions here complained of.

³²⁹ Terra Australis incognita.

navigate the ocean as far as Madagascar, and the coast of Zanguebar is evident; for Marco Polo was not there himself, and could have his account only from them or from Arabs³⁴⁰, whom he might meet with on the coast of Malabar from Arabia or Africa. It should seem however rather from the former than the latter, for as Marco Polo is the first author who introduced the name of Madagascar³⁴¹ into Europe, so is it probable that this title is not given to it by the natives, but by the Chinese, Malays, or Hindoos. In confirmation of this we find in Cook's comparative vocabulary, drawn up by Mr. Marsden, that the Malay numerals, and some other radical words, are still current in that island. Now if the Malays traded to this island, or the coast of Zanguebar, they must have had intercourse with the Arabs settled there; and that the Arabs did believe the possibility of a circumnavigation has been proved already, both from their observation of the interior, and from such intelligence as they might derive from Benomotapa. From some of these sources there can be little doubt that Marco Polo, if his map or chart contained the continent of Africa, might assign a termination to the coast, and convert that into sea which Ptolemy and his copiers had assigned to their southern continent.

But there is a stronger argument for believing that this African Cape was in the original of M. Polo, and not introduced by the artist who copied it, which is, that M. Polo himself speaks of the coast of Zanzibar, not as the continent, but as an island two thou-

³⁴⁰ The Arabs had been in India 600 years before the Portuguese arrived at Calicut, according to the Portuguese accounts, and we know from Pliney, that they were so settled or

spread on the coast of Malabar and Ceylon, that their superstitions had been adopted by the natives previous to his age.

³⁴¹ He writes Madassar or Magassar.

land miles in circumference²⁴²; whatever error there may be in this, it is self-evident, that if he made it an island, he must give it a termination on the south, as well as on the other three quarters; and if he delineated this, that southern boundary must be the very limit of Africa, which Ramusio says the copy contained. It is for this reason most especially, that we ought to admit the fact; and if the fact is admitted, to M. Polo must be assigned the honour of first giving this intelligence to Europe, and of opening the way for the discoveries of the Portuguese.

Secondly. What the map was which was composed for the use of Covilham by Calzadilla, afterwards bishop of Viseo, by Dr. Rodrigo and the Jew Moses, cannot be determined without better materials from Portugal than are in my possession; but there is great reason to believe, that the principal source of that work was the map of Marco Polo, because the first printed edition of his work was in Portuguese, dated Lisbon 1502, by a gentleman in the court of Eleonora, wife of Emanuel; and this being only four years after the voyage of Gama, when every spirit was roused by the discovery, it seems highly probable that the intelligence contained in this book was in possession of the court of Portugal previous to the expedition, and had been made use of by the kings of that country, for the purpose of instructing and encouraging those who were employed upon that service.

It is to be observed, that the original work of Marco Polo was composed in Italian by a Genoese, who took his instructions from the mouth of the author, when a prisoner at Genoa, about the

²⁴² A torno.

year 1300. From this Italian copy ³⁴³ a Latin translation was made at Bologna, and published in MS. two copies of which were preserved, one in the Library of the Canons of Latran at Padua; the other at Colonia ³⁴⁴ in Brandenburg, in the Library of the Elector. Both copies are supposed to be nearly the same, but differ from another which was made at Bâle. These are all manuscripts, but from one of these it may well be imagined that a copy had been procured by the Portuguese, during almost the whole century that their mind was set upon this object, from the first attempt of prince Henry in 1406, to the voyage of Gama in 1497. The edition of this work from the press, so early as 1502, in Portugal seems to confirm this, and as the circumnavigation was completed, it could now no longer be concealed, nor could any future adventurer detract from the honour of the discovery. These circumstances, it is true, amount to no proof, but afford ample ground for believing that the map delivered to Covilham was framed from this source of information. Whether the original map and chart of M. Polo, in the church of St. Michael di Murano at Venice, or the copy which replaced it had been copied by the Portuguese, I have no means to determine; but as it seems to have been open for the inspection of all visitors, and as the ardour of the Portuguese was pointed to rival the commerce of Venice, from their first outset to the attainment of their object; it may reasonably be concluded, that if they had no Portuguese ³⁴⁵ in that

³⁴³ The whole of this is from the preface of Andre Muller Grieffenhag in Bergeron.

³⁴⁴ What Colonia? I wish the German Latinists would give us the modern names of cities.

³⁴⁵ Bruce, vol. ii. p. 96. says Don Pedro

Henry's brother brought a map from Venice, in which the cape was marked; but he gives no authority. If I had known where to find this fact, I could have determined the question. I do not doubt it, but I wish both Bruce and many other authors would prefer

that city to collect intelligence, they employed Jews for that purpose; for Jews they seem ever to have persecuted and trusted at the same time; a Jew was employed in forming Covilham's map, and two Jews were sent after him into Egypt.

Thirdly. What map it was that Covilham sent home, which he had procured from a Moor in India, cannot be determined; neither has Bruce, who mentions this circumstance, condescended to give us his authority. I suspend, therefore, all judgment upon this till I know the foundation on which it stands; it seems rational that the Mahomedans should have charts of their navigation³⁴⁶, as well as the Europeans; but as no Mahomedan or Arab had passed the cape, the delineation of it must have stood upon the same sort of intelligence as Marco Polo had acquired in the east, or be inserted from imagination and the prevailing belief of the fact. Whenever I can discover the authority of Bruce it will deserve consideration, till then I shall think that if Covilham filled up the map he had received, or corrected it, or added to it such information as he could collect, it is a more probable account than the report of this Moorish map, which contained cities that never existed. Such a corrected map of Covilham's we read of in Castaneda, who seems to have seen it, as he says it was ill-written and disfigured; this I take to be the map to which Bruce alludes.

the information of their readers by marginal references to the vanity of a clean page. It does seem highly credible that the map of M. Polo was brought to Portugal by this Don Pedro.

³⁴⁶ What sort of charts or maps the Arabs

had, as late as 1400, may be seen by the map of the world I have inserted in the appendix from Al Edrissi. The Great Cape of Africa is not in that, though posterior to M. Polo; but the author is prior to the Venetian, though the copy of his work is later.

Voyages of BARTHOLOMEW DIAZ and VASCO DE GAMA.

XXVII. FROM the year 1410³⁴⁷ to 1486 the Portuguese had been engaged in advancing their discoveries to the south; some progress had been made in every reign; but the honour of doubling the extreme cape of Africa was reserved for John the second. In ³⁴⁸1486 Bartholomew Diaz sailed from Portugal with three ships; he is called an officer of the king's storehouse at Lisbon, but is manifestly of a family³⁴⁹ which had long been employed in these voyages of discovery; and had probably been gratified with a place of trust for merits in the service. He advanced to 24° south, one hundred and twenty leagues beyond the track of former navigators, and then stretching boldly out to sea, never touched upon the coast again till he was actually forty leagues to the eastward of the cape, which he had passed without seeing it in his passage.

This however was not the termination of his discovery, for he proceeded to the river del Infante, upwards of six degrees to the eastward of Agulhas³⁵⁰, which is the most southern point of Africa, and near a degree beyond the Cape of Good Hope. The reason of his return is not quite evident; but he had parted³⁵¹ with one of his

³⁴⁷ One thousand four hundred and six is given as the first date of prince Henry's designs.

³⁴⁸ See Castaneda, Faria, Mickle, Olorius, Bruce.

³⁴⁹ We meet with Dinis Diaz and Vincent Diaz in 1447, and John Diaz who was one of the first company erected at Lagos in 1444. Faria, p. 9.

³⁵⁰ Cape Agulhas or Needle point. These

names still decorate our charts, and it is but justice to preserve the names and language of every discoverer. The French have had the vanity to displace several appellations of our late discoverers. But La Peyrouse was honest than his countrymen.

³⁵¹ He met this vessel on his return with only three of the crew alive. One died for joy.

little fleet on his passage, and it may be presumed that the impossibility of collecting information from the natives, with the continuance of the coast to the eastward, which he might have expected to trend to the north, contributed to his determination. Five and twenty leagues short of this river he erected his cross on a rocky islet, which still bears the name of De la Cruz, in the bay of Algoa³⁵². This is a perpetual monument to his honour, and the Grand Cape which he saw on his return he styled the Cabo Tormentoso, from the tremendous storms he had encountered on his passage. The different sentiments with which this discovery inspired his sovereign upon his return, reversed the omen, and changed the Stormy Cape into the Cape of Good Hope, a name which has superseded the pretensions of all occupants and all conquerors, and which it is hoped will preserve the glory of a generous monarch, and his hardy subjects, to the end of time.

Still, though the discovery was made, it was not completed. India had been the object of the sovereign, and the nation, for almost a century; but India was neither found, or seen, or heard of, this was wanting to the fame of Diaz, and this was the cause that all the glory of the discovery attached to Gama. Gama was a man of family³⁵³, and Diaz sailed under him, with an inferior command; he had not even the satisfaction of attending his superior to the completion of his own discovery, but returned from St. Jago, and was again employed in a secondary command under Cabral, in the

³⁵² Algoa, in the English charts, properly Del Agoa, (Água, water,) there are two Del Agoas.

³⁵³ Faria. But Castaneda takes no notice

of his family; he at least had armorial bearings, which, in that age, implied the rank of gentleman. He bore a Gama, i. e. Dama.

fleet that failed to India in 1500. In this expedition Brasil was discovered, and in the passage from thence to the Cape, four ships perished, one of which was that of Bartholomew Diaz with all on board²⁵⁴.

It would seem natural that the discovery of Diaz should have been immediately prosecuted to its completion; but it required a deliberation of ten years and another reign before a new expedition was undertaken; and great debates are mentioned as passing in the council of Portugal, whether the attempt itself were expedient, or any advantage could be derived from it to the nation at large.

In the mean time, however, the design had never been relinquished, or the prior discoveries neglected; John II. had dispatched Covilham and his companions into the east, and the establishments on the coast of Guinea had been attended to with anxious solicitude. At length when Emanuel had determined upon prosecuting the discovery of India, Gama was selected for the service, and was conducted to assume his command on board the fleet, under the most solemn auspices of religion²⁵⁵. The king, attended by all his court, accompanied the procession, and the great body of the people was attracted to the shore, who considered him and his followers rather as devoted to destruction, than as sent to the acquisition of renown.

²⁵⁴ Mickle Lusiad, p. 201. Casaneda, p. 73.

²⁵⁵ Bruce, who is no enemy to religion, no Volney, has condemned the religious solemnity attending this embarkation, as discouraging; but he seems neither to have considered the age

or the nation. By all that we can collect of the execution of this voyage, Gama seems to have devoted himself to death, if he should not succeed, from a sense of religion and loyalty. His success is owing to this sentiment.

The fleet consisted of three small ships and a victualler, manned with no more than one hundred and sixty souls; the principal officers were,

Vasco de Gama.

Paul de Gama, his brother.

Bartholomew Diaz, who was to accompany them only to a certain latitude.

Diego Diaz, purser, brother of Bartholomew.

Nicolas Coello.

Pedro Alanquer, who had been pilot to Diaz.

Gonzalo Gomez.

They sailed from Lisbon on the 18th of July 1497, and after parting with Diaz at St. Jago, reached the Bay of St. Helena in latitude $32^{\circ} 35' 0''$, on the 4th of November. They had on board several who spoke the Arabick language, and others who had acquired the Negro tongue by former voyages to the Gold Coast, Benin, and Congo. In the Bay of St. Helena they found the natives which we now call Hottentots, as we discover by the mention of a peculiarity in their utterance, which the journal calls *fighting*³⁵⁶, and which Vaillant describes by the term *clappement*, a guttural cluck, the characteristic of their language. None of the Negro interpreters understood this dialect.

A quarrel arose between the voyagers, and these harmless and timid natives, from the suspicion of treachery, natural to those who visit barbarous nations for the first time; and in the skirmish Gama himself was wounded in the foot. This accident hastened their

³⁵⁶ Castañeda, p. 7.

departure.

departure. They left the Bay on the 16th of November; Alauquer declaring that the cape could not be much farther than thirty leagues distant, though he could not describe it, as he had passed it without seeing³⁵⁷ it, under the command of Diaz. For the four following days it was a continued tempest at south south west, during which Oforius³⁵⁸ introduces the account of Gama's confining his pilots in irons, and standing to the helm himself. Castaneda mentions nothing of this circumstance; his narrative indeed is brief and dry, but seems to be a copy of the journal³⁵⁹. On the fourth day the danger was surmounted; they doubled the Cape on the 20th of November, and getting now the wind in their favour, came to an anchor in the Bay of St. Blas, sixty leagues beyond the Cape, upon the Sunday following. This Bay still bears the name of St. Bras in our charts; and the natives found here were the same as those of St. Helena.

At St. Blas the fleet staid ten days and was supplied with oxen by the natives. They found also penguins and sea lions in great numbers. They discharged and burnt the victualler, and then proceeded on their voyage to the eastward. The rock de la Cruz, where Diaz had erected his pillar, was by estimation sixty-five leagues from St. Blas, and the river Del Infante fifteen farther to the east. When Gama set sail the current was strong against him, but having the wind in his favour, which blew a storm from the 8th to the 13th, he pushed forward till he was sixty leagues from St. Blas, on the 16th of December. Here he made the coast³⁶⁰, which

³⁵⁷ I follow the Journal of Castaneda; he must have seen it on his return.

³⁵⁸ Vol. i. p. 48.

³⁵⁹ It often glides from the third into the

first person, without appearing conscious of the change.

³⁶⁰ Somewhere about Cape Arrecife or Foul Cape.

had a good appearance, with herds of cattle on the shore. He passed within sight of de la Cruz, and wished to have come to an anchor at the river Del Infante, but the wind being adverse, he was obliged to stand out to sea, till on the 20th of December it came again to the west, and carried him through the currents which had opposed him all round the Cape. The good fortune which attended him in obtaining this wind, at the time when the current was most unfavourable, inspired gratitude in the heart of Gama to that Providence which protected him; he offered up his tribute of thanksgiving, and declared to his people, that he verily believed it was the will of God that India should be discovered¹⁶¹.

From the 20th to the 25th he ran along a coast which he styled Terra de Natal, from the celebration of the Nativity on that day. It lies between latitude $32^{\circ} 30' 0''$ and 30° south; and on the 6th of January 1498 he reached a river which he named De los Reyes, from the feast of the Epiphany; he did not anchor here, though in great want of water, but proceeded till the 11th, when he landed at a river called Cobio¹⁶², and which, from the treatment he received, he left afterwards marked with the appellation of Rio dos buenas Gentes, or the River of Good People.

The natives here were no longer Hottentots but Caffres, who even in that age bore the same marks of superior civilization, which they preserve to the present hour. A circumstance more fortunate and more extraordinary was, that Martin Alonzo understood their language. This is a most remarkable occurrence, as Alonzo could scarcely have been lower than Mina on the western coast, which is forty degrees from the Cape, and the breadth of the continent

¹⁶¹ Castaneda, p. 10.

¹⁶² Ibid. p. 11.

from west to east cannot, in the latitude of 20° south, be less than eighteen or nineteen degrees more. What Negro nation or language do we know of such an extent? and yet wonderful as it is, there is no reason to doubt the fact. These people had mean houses, but well furnished, and were possessed of iron, copper, pewter, salt, and ivory.

The fleet staid here till the 15th, and obtained, wood, water, fowls, and oxen. Proceeding on that day to the northward, they continued their voyage till the 24th; in this run they passed Cape Corrientes and the low coast of Sofala without anchoring, till they reached a river, which, from the circumstances that arose, they had afterwards reason to call the river of Good Signs³⁶³ (de bons Sinas).

It is a circumstance particularly noticed by the historians, that from St. Helena to this place no vestige of navigation, no sort of embarkation had been seen. But here, upon the morning after their arrival, they were visited by the natives in boats, which had sails made of the Palm³⁶⁴. This roused the attention of every one on board, and in the course of a few days two men of superior rank came on board, who had garments of cotton, silk, and fatten; this was the first infallible *sign* of the produce of India, and hope glowed in every heart. The language, however, of their visitors was unknown; they understood not the Negro dialect of Alonzo, nor the Arabick of Alvarez³⁶⁵, but they intimated by signs that they had

³⁶³ Faria, p. 18.

³⁶⁴ Faria. The expression is not clear, but intimates cloth made of fibres of the coco palm. It is worthy of notice that Castaneda

mentions *four* here, but nothing of *sails* till they approached Mosambique.

³⁶⁵ Olorius says, one of them spoke Arabick very imperfectly, vol. i. p. 51.

seen ships as large as the Portuguese, and seemed to mark the north as the quarter where they might be found.

Here then Gama determined to prepare for the completion of his discovery. The natives were quiet; they were not Mahomedans. The women received the seamen with complacency, and provisions were easy to be procured. These were all inducements for laying his vessels a-ground and careening them. He gave orders accordingly; and during a stay of more than thirty days, which this service required, no dispute arose to disturb the harmony between the natives and their visitors.

This river is the Zambezè, which is navigable for two hundred leagues up to Sucumba³⁶⁶, and penetrates into the interior of Benomotopa. It falls into the sea through a variety of mouths, between latitude 19° and 18° south, which are known in our modern charts as the rivers of Cuamo and Quilimanè, from a fort of that name upon the northern branch³⁶⁷. I find nothing in Castaneda or Faria to mark the extent of Gama's knowledge at this place, but as he had the corrected chart of Covilham on board, in which Sofala was marked as the limit of his progress; if that chart was furnished with the latitude, Gama must have known that he had now passed the barrier, and that the discovery was ascertained. The most southern branch of the Zambezè is two degrees to the north of Sofala. He must likewise know that the directions given by Covilham were to inquire for Sofala and the island of the Moon³⁶⁸. And whether he

³⁶⁶ *Reffende*, p. 80.

³⁶⁷ I cannot ascertain which mouth of the Zambezè Gama anchored in. I suppose it to be the largest, which is that most to the north, as *Reffende* places the river of Good Signs in

in latitude 17° 50' 0". P. Lobo calls Quilimanè the river of Good Signs, p. 202, ed. Paris, Le Grande.

³⁶⁸ The Island of the Moon is an Arabick name and occurs in *Al Edrissi*.

understood

understood the language of the natives or not, the name of Sofala³⁶⁹ must have been pronounced to them in an intercourse of thirty days, and the quarter where it lay must have been obtained.

We are here approaching to a junction with the discoveries of the Arabians, the Egyptians, the Greeks, and Romans; and though possibly none but the Arabians³⁷⁰ had been as low as Sofala by Sea, certain it is, if the authority of Ptolemy may be credited, that the Romans had penetrated inland to the southward of the equator, and terminated their researches with a nation they styled Agisymba. Ptolemy³⁷¹ mentions two Roman officers, Septimius Flaccus and Julius Maternus, who had been engaged in these expeditions to the south, Flaccus from Cyrene³⁷², and Maternus from Leptis. Flaccus reported that the Ethiopians [of Agisymba] were three months journey south of the Garamantes, and Flaccus seems to have performed this march himself. Maternus reported, that when the king of the Garamantes set out from Garama to attack the Ethiopians of Agisymba, he marched four months to the south. Ptolemy does not allow the use made of these reports by the geographer Marinus, which would carry Agisymba into 49° or 55° south latitude, still under his own correction he carries Prasum³⁷³ into latitude 15° and Agisymba somewhat farther to the south.

Wonderful as this march of Flaccus is to contemplate, through the very heart and most desert part of Africa into such a latitude, it is still more extraordinary that the latitude of Prasum should coincide with Mofambique, and that two or three degrees farther to the

³⁶⁹ See Orosius, p. 52.

³⁷⁰ And the Phenicians, if Sofala is Ophir.

³⁷¹ Lib. i. c. 8.

³⁷² Libya.

³⁷³ Page 115.

south, the kingdom of Benomotapa³⁷⁴ should occur, in which Zimbao is still the name of a tribe, or as the Portuguese writers affirm, the court of the sovereign³⁷⁵.

It is by no means necessary to assert, that Mosambique is identically Prafum, or the Zimbaos Agifymba, but the coincidence of latitude led the Portuguese almost to a man to give credit to the one, and the coincidence of sound³⁷⁶ has left a constant belief of the other. The Portuguese pilots were many of them well read in Ptolemy. It is from information of this sort that Di Barros maintains that Sofala is almost surrounded by a river issuing from a lake called Maravi, which the ancients supposed to be the origin of the Nile; a charge not very unjust, if we consider that Ptolemy has

³⁷⁴ Benomotapa is celebrated by all the Portuguese, as the source from whence all the gold dust at Sofala, and on the coast is acquired. There is said to be a gold mine in that kingdom called Manica, and others of silver, as Faria affirms, (vol. iii. p. 148.) and gold is also found in the streams which come down from the mountains. These mountains, which Rennell calls the Belt of Africa, Di Barros places between the equator and tropic of Capricorn. What their breadth is, or whether they communicate with those of Abyssinia is still problematical. That they do, is highly probable; and as they throw down the Nile to the north, on the south they may well produce the Zambeze, or rivers of Cuzmo or Quilimane; as well as the Obii and Quilimane at Paté and Anpaça, and the great lake which all speak of with so much uncertainty. We may suppose all these rivers which come to the south productive of gold as well as the river of Benomotapa. And as the kingdom of Abyssinia in its more flourishing state certainly extended its influence

to Magadozo, in latitude 5° north, so may we discover the means by which, in all ages, the gold dust of the south found its way into that kingdom. Bruce says it has no gold of its own, and yet gold by the ounce, and bricks of salt are the current coin of the kingdom. This method of procuring gold in Abyssinia from the south was known both to the Greeks and Arabs, and must apparently have been the primary cause of their voyage to the south, and possibly of those performed by the Idumeans, Phenicians, and Solomon to Ophir, if Ophir and Sofala be the same.

³⁷⁵ Di Barros, in Ramusio, p. 261. vol. i. Barbosa, *ibid.*, vol. i. p. 288. Marmol, vol. iii. who copies Di Barros.

³⁷⁶ D'Anville calls them Zimbas or Muzimbas, and seems to think them the same as the Gallas, who have been the pest of Abyssinia for many centuries past. The lake here noticed he first introduced into a map composed for Le Grande's edition of Lobo in 1728.

brought the source of that stream into $12^{\circ} 30' 0''$ south, though Di Barros himself is as bold in his assertion when he derives from the same lake.³⁷⁷ the Zambezè, with all the streams of Cuamo, the Espiritu Santo which falls into the sea below Cape Corrientes³⁷⁸, and another river which is to traverse the whole continent into Congo.

At this river of Zambezè we have a right to consider the discovery of Gama ascertained, as he had here united his circumnavigation with the route of Covillham; but we must conduct him to Quiloa, in order to make him meet the limit of the Periplûs at Rhaptum, and to Melinda, before he obtained a pilot to conduct him to the Indies.

It was not till the 24th³⁷⁹ of February that the fleet was repaired and ready to sail; and it is remarkable that the people had suffered much here from the scurvy, notwithstanding the country is said to have abounded with fruits of various sorts in abundance; the disease is imputed to the lowness and humidity of the coast, and the humanity of Gama is recorded as opening all his own stores for the relief of the afflicted. Upon the resumption of his course he kept along the coast for six days, and upon the first of March came in sight of four islands that lie off the port of Mosambique. It is upon the approach to this port that Castaneda first mentions boats furnished with sails; and no sooner did this sight meet the eyes of the navigators than Coello, running up along side of his commander,

³⁷⁷ Marmol speaks of a Lake Zaffan, here, which he confounds with the Tfans or Dembea of Habez, p. 156, et seq.

³⁷⁸ See Di Barros, in Ramusio, vol. i. p. 386. et seq.

³⁷⁹ An. 1498.

cried out, "How say you, sir, here is another kind of people," and such indeed they found them, for Mosambique was at this time under the government of Quiloa, the sovereign of which was master of the coast from Sofala to Melinda³²⁹, with most of the islands in the neighbourhood. From the colour of the voyagers they were easily mistaken for Turks³³¹, with whom the Moors were necessarily acquainted in the Red Sea, and for this reason, upon the first interview every civility was imparted, and pilots granted at their request. With the discovery of this mistake, and the treachery in consequence of it, we have no concern, but with the appearances that evinced an Indian commerce Gama had every reason to be gratified. The vessels were such as traded along the coast, large, but without decks, the seams sewed with cayro, or cordage made of coco, and the timbers fastened with the same without a nail throughout. The sails were mats composed of palm leaves; and many of the larger sort had charts³³² and compasses³³³. The Moors of the Red Sea and India received here the gold of Sofala in exchange for their commodities; and the town, though meanly built, furnished abundant specimens

³²⁹ Mombaza excepted, which had revolted, and Melinda was preparing for a revolt.

³³¹ Moors of Barbary, according to Oforius. But this is supposing that the natives of Mosambique knew that they had come round the Cape. It is much more probable that they supposed them Turks from the Red Sea who had been down to Sofala, or had been driven accidentally to the south.

³³² And quadrants, Oforius says; but perhaps without sufficient authority. I have not

the Latin work of Oforius, but suppose he might use astrolabe, which is rendered quadrant by his translator; this would not prove a knowledge prior to the Europeans, for the Arabick term is *astharab*, evidently corrupted from the Greek, and shews its origin as readily as *huffola*. See *Chamb. Dict. in voc.*

³³³ The Arabick term for the compass is *huffola*, a certain proof that they derived it from the Italians who traded to Alexandria, Mickle, lxxi. See *supra*.

of pepper, ginger, cottons, silver rings,* pearls, rubies, velvet, silk, and various other articles of an Indian trade. The inhabitants were mostly Caffres, but the government was in the hands of Mohamedans from Arabia, and as the commander had several who could speak Arabick on board, a communication was readily opened, and intelligence soon obtained that the voyage to Calicut was regularly performed, and the distance about nine hundred leagues.

The fleet remained at Mosambique and in the neighbourhood till the 24th of March, and then made sail along the coast to the northward³⁴. I should have been glad to have conducted Gama to Quiloa, as I esteem it the Rhapta of the Periplûs; and I could have wished to have ended his navigation from Europe where I terminated that of the Greeks from the Red Sea; but partly from treachery and partly from accident, he was carried past Quiloa, and proceeded to Mombaça; the same treachery attended him at this place as before, which deterred him from entering the port. Some of the people, however, landed and found a city much more splendid than Mosambique. Here likewise were found all the commodities of India with the citron, lemon, and orange, the houses built of stone like those of Portugal, and the inhabitants chiefly Mohamedans, living with all the splendour and luxury of the east.

The stay of Gama at this place was only two days, when he proceeded to Melinda and came to an anchor upon the 17th of

³⁴ It may not be improper to notice that the language of the coast styles the course to the northward east, and to the Cape west. It is thus in the Thames that we call Norway ships, Danes, and Swedes, east country ships.

March 1498. There is no harbour here but an open road²⁸⁸, the city, however, was splendid and well built, with houses of several stories, and the appearance of wealth throughout, evinced the extent of their commerce and their communication with India. Here though Gama was not without suspicion, he experienced every act of friendship and hospitality; and this, because Melinda was inclined to hostilities with Quiloa, and ready to receive every one as a friend who had experienced injuries in a rival city.

We are here to take our leave of Gama; his discovery was ascertained, and after having conducted him within the boundary of the Greeks and Romans, the object for introducing this narrative of his voyage is answered. It is but justice, however, to notice, that he reached the long sought shores of India, and visited Calicut, the centre of Indian commerce, without any particular misfortunes, but such as are natural to a first attempt. He returned to Lisbon in 1499, where he received every honour which a generous sovereign and grateful nation could bestow.

He was again honoured with the command of a Squadron in 1502, when the style of his commission was that of admiral and governor; and he returned²⁸⁹ a third time in 1524, under the reign of John III. when he was raised to the title of viceroy and count de Vidigueira. During this command he died at Cochin in 1525, after having the satisfaction of living to see the power of his country paramount in the seas of India, from Malacca to the Cape

²⁸⁸ Such as are the *ὄματα* of the Periplus.

²⁸⁹ Faria, vol. i. p. 63, and 280.

of Good Hope. A power which she maintained for upwards of a century, and lost at last by the loss of those virtues by which it had originally been acquired.

Gama was formed for the service to which he was called, violent indeed in his temper, terrible in anger, and sudden in the execution of justice, but at the same time intrepid, persevering, patient in difficulties, fertile in expedients, and superior to all opposition. No action can entitle the most illustrious to the character of great, more than the fortitude he displayed when detained in Calicut by the Zamorin, and when he ordered his brother to sail without him, that his country might not be deprived of the fruits of his discovery. To the virtues of a commander he added the religion of a Christian, and though the religion of his age was never without a tincture of chivalry and superstition, in one sense at least his religion was pure. It was religion that supported him under the perils he encountered, and a firm persuasion that it was the will of Providence that India should be discovered. The consequence of his discovery was the subversion of the Turkish power, which at that time threatened all Europe with alarm. The east no longer paid tribute for her precious commodities, which passed through the Turkish provinces; the revenues of that empire were diminished; the Othmans ceased to be a terror to the western world, and Europe³²⁷ has risen to a power which the other three continents may in vain endeavour to oppose, Portugal it is true has lost her pre-eminence in the east, but she still retains Brasil, which was the accident of her Oriental voyages, and

³²⁷ Such is the opinion both of Abbé Raynal, Mickle, Dr. Campbell, Harris, &c. &c. See in Mickle, p. 83. a citation from Faria to this effect.

which has prolonged her existence as a nation to the present hour.

The reader will pardon this digression in favour of a man whom no historian ever contemplated without admiration, but if the history of the man does not attach to the purpose of the present work, the account of his voyage is one of its constituent parts. Our design has been to shew all that the ancients performed, or could not perform, and the voyage of Gama has been detailed, with all its difficulties, in order to prove the utter improbability of any previous navigation round the Cape. I will not say it was impossible, but I think it impossible to have been once performed and never prosecuted; I think it impossible that it should have stood upon the page of history as an insulated fact, through a lapse of one and twenty centuries, without imitation or repetition of the experiment.

XXVIII. It remains still to shew the relative situation of the Arabs on this coast of Africa, such as the Greeks and Romaps left them, and such as the Portuguese found them upon their arrival in the Eastern Ocean. The Periplus mentions that the Arabs of Rhapta were subject to the sovereign of Maphartis, and Maphartis itself was one of the dependencies of Sabæa or Yemen. They employed the vessels sewed with coco cordage, from whence the name of the place, and they traded to India, Arabia, the Red Sea, and Egypt. Arabs of the same description Gama found here after the expiration of thirteen centuries, the same vessels on the coast,
and

and the same foreign trade. One circumstance indeed was different, the religion of Mahomet had at the same time introduced superior vigour, and a more extensive commerce, engendered a hatred to the Christian name, which excited that malice and treachery which Gama experienced, and which, perhaps, without a difference of faith, the rivalry in commerce must necessarily have produced.

Of these Arabs there were two distinct parties, one called Zaydes or Emozaides, who were the first settlers upon record, and the other tribe from Baca in the Gulph of Persia near Bahrein³⁸⁸. The Emozaides were hereticks of the sect of Ali, they came from Yemen, and seem to have occupied the coast of Africa, after the time of Mahomet, in the same manner as their Heathen brethren had settled there in the age of the Periplus. The tribe from Baca were Sonnites or orthodox, who hate the Shiites worse than Christians; they had seized first upon Quiloa, and had extended their power for two hundred miles along the coast, but from their internal dissensions were declining in power when the Portuguese first arrived in the Indian Ocean. Upon the introduction of this tribe from Baca³⁸⁹, the Emozaides retired inland and became Bedouins³⁹⁰, they intermarried with the natives, and still exist as black Arabs, little distinguished from the Caffres who are found both on the continent and in the islands³⁹¹, which lie in the Mosambique channel, and even in the island of Madagascar.

The

³⁸⁸ Di Barros, in Ramusio, vol. i. p. 386. et seq.

³⁸⁹ If we may judge from Niebuhr they ought

to be of the tribe Beni Houle, in Oman.

³⁹⁰ Wandering tribes that live in tents.

³⁹¹ The king of Johanna is perhaps of this cast.

The whole coast below Mombaça was under the power of these Sonnites from Baca; but Mombaça had revolted, was independent, and had a sovereign of its own, who was a Sounite; while Brava and Magadoxo were styled republicks, where the power was in the hands of twelve³⁹² principal families forming an aristocracy, perhaps as conspicuous on that coast as Venice was in the Adriatick.

This state of the country is perfectly analogous to the description of it in the Periplus; every city, says that journal, was a separate government, and every government had its independent chief. Such they were in that age, and such they might have continued if an European power had not arisen, which overwhelmed them all in a period of less than twenty years. Sofala, Mofambique, Quiloa, Angoxa, Ocha, Patè, Mombaza, Brava, and the Zanguebar Islands,

cast, half Arab and half Negro, as Sir William Jones says the family came from the main. The proper name is Hinzuau, which became Anjuan, and Anjoanè easily made Johanna by an English seaman. It is one of the Comora Isles between Madagascar and the continent; and Comora still preserves the name of Comr, the Arabick name of Madagascar, the Island of the Moon.

³⁹² The love of independence is the ruling principle in the mind of an Arab, and a patriarchal sovereignty is the only one to which he can naturally submit. This it is which drives so many petty tribes into the deserts, which they occupy from Mesopotamia to the frontiers of Morocco, and from the coasts of the Persian Gulph to Mofambique. The residence in cities is unnatural to them, and though they do occupy places which they have

conquered, still every city must have its chief, and every chief finds a party within his walls which is hostile to his government. Niebuhr has painted this spirit of the people most admirably throughout his work. But the Mahomedan religion has also produced an aristocratic principle, subsisting under all the despotism of the east. The Ulemas, under the Turkish government, are an aristocracy between the monarch and the people; and whoever is acquainted with Oriental manners, knows that there were families which preserved a sort of ruling power in Samarkand, Bagdat, Basra, and all the principal cities of the east. Such a junction of families might well exist at Brava and Magadoxo, when the Portuguese first visited the coast; and any government where there was no ostensible chief would suggest to them the idea of a republick.

all submitted to Diego Almeida, and Trifan d'Acugna before the year 1508. Melinda, which had always been friendly, lost all her importance, and Magadoxo only resisted with effect; but whether from the bravery of the people, or because it lay too much to the north to be of importance, is hard to determine. Had they not been conquered they must have sunk in their importance from the natural course of events; the sinews of their commerce were cut, and their ships could not sail without a Portuguese pass. The produce indeed of the coast itself would still have maintained these cities from utter decadence, and brought foreigners to their ports; but the power of the Portuguese monopolized all profits, till it fell in its turn by the errors of the government, and by the avarice and speculation of its officers. Of all these conquests which do so much credit to their valour, and so little to their policy, Mosambique is the only possession which has survived the wreck of their empire; and this port is said still to be a profitable settlement, and to preserve an influence over the other states, which have reverted again into the power of the Arabs; among these the Imam of Oman is the chief, and Quiloa and Zanguebar are governed by Sheiks of his appointment²⁹¹.

It was my intention to have closed this account of the coast, and this part of the Periplus, which I call the African Voyage, with some particulars relating to the Arabian settlements, and their situation under the power of the Portuguese; but the whole of this subject has been so ably discussed by the writers of the *M. Universal History*, in their twelfth volume, and so much more at large than would have been suitable to the nature of the

²⁹¹ Niebuhr, vol. ii. p. 146. Arabick, Fr. ed.

present work, that the labour is not necessary. Some particulars I had collected from Rellend's MS. in the British Museum, with which they were not acquainted, that might have been acceptable; but in general, the authorities they have followed are so genuine, and their own observations so just, as to admit of little farther enlargement upon the subject.

Here, therefore, I close the First Part of my design, which was to examine the navigation of the ancients on the coast of Africa, from their first entrance into the Red Sea, to the termination of their progress to the south; and to connect their discoveries with those of the moderns, by fixing on the voyage of Gama as the point of union. The Second Part will contain two books allotted to Arabia and India, a subject less obscure, but still curious rather than amusing. The materials for the whole are collected, and will be published as soon as they can be reduced into form; but whether that period will be short or distant I cannot presume to calculate. I am fully sensible that want of leisure ought to be considered rather as a bar to publication altogether, than pleaded as an excuse for publishing a work incomplete or incorrect. But if time had been taken to complete the whole, it might never have been brought to the press; and if the part now edited be incorrect, it is not from negligence, or from misapplication of such leisure as I have, but from want of powers to perfect it to my own satisfaction. It remains with the

public to decide whether it will be better that the Second Part should be published or suppressed.

It is with extreme regret that I am again compelled to advert to the disagreement between Mr. Goffelin's opinion and mine, in regard to the limit of ancient discovery towards the south. I could have wished to have seen his work sooner, that I might have given it the consideration it deserves; or not to have seen it at all, that both our opinions might have been left undisputed, for the judgment of the publick; but I now cannot help observing, that although, from the pressure of time, I am not competent to decide on Mr. Goffelin's account of the ancient geographers, or the various methods he has assumed for correcting their errors, still I cannot but acknowledge his masterly and scientifick possession of his subject, as well as the great perseverance of his investigation; and if I differ in opinion from such a writer, I still pay respect to his talents and abilities. We differ, it is true, several degrees upon the extent of the voyage in the *Periplus*. But if Mr. Goffelin will allow, which he does, that it extended beyond Cape Gardesfan and Cape D'Affui, then he must acknowledge that seven mouths of rivers, answering to the last division of the voyage in the *Periplus*, can nowhere be found till we approach the mouths of the *Obii*. This is the great proof upon which I rest the question; for supposing the *Pyralaan* Islands to be defined by the streams of that river, as it divides upon its approach to the sea, the *Periplus* is in perfect harmony with the accounts of the Portuguese in general, and *Ressende* in particular; and if their authority is insufficient, I know of no better to which an appeal can be made.



THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A .
PART THE SECOND.

THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A .

PART THE SECOND.

CONTAINING,
AN ACCOUNT OF
THE NAVIGATION OF THE ANCIENTS,
*FROM THE GULPH OF ELANA, IN THE RED SEA,
TO THE ISLAND OF CEYLON.*

WITH DISSERTATIONS.

BY WILLIAM VINCENT, D.D.

Γράφω δὲ ταῦτα, πολλοῖς μὲν ἰσχυρῶς ΠΕΡΙΠΛΟΙΣ, πολλοὺν δὲ περὶ τῶν εὐστασιῶν ἰσθμῶν ἀναλύσεως χάριν.

MARCIANUS HERACLEOTA, apud HUDSONUM, p. 62.

LONDON:

PRINTED FOR T. CADELL AND W. DAVIES, IN THE STRAND.

1805.

T O

T H E K I N G .

S I R,

WHEN I was honoured with permission to dedicate the former part of this Work to Your Majesty, I entertained little hope that the remainder would be brought to a conclusion. But the consequences of Your Majesty's condescension in my favour have been leisure, tranquillity, and health. In possession of these blessings, I returned naturally to those pursuits

suits which have enabled me to fulfil my engagement to the Public. Impressed therefore, as I am, with a sense of the most devoted gratitude, nothing remains for me to solicit, but the continuance of the same protection to the completion, as I experienced at the commencement of the Work. And if it shall appear that the plan has been formed with judgment, and executed with fidelity, no farther qualification will be necessary to recommend it to the consideration and patronage of Your Majesty.

I have the honour to subscribe myself

YOUR MAJESTY'S

Most obedient,

most faithful,

humble Servant, and Subject,

JUNE, 1805.

WILLIAM VINCENT.

P R E F A C E.

W H E T H E R the following Work will afford a degree of satisfaction proportionate to the labour of compiling it, is a question not for the Author, but for others to decide. By some it may be thought digressive, tedious, and minute; while others may conceive that there are various sources of information still unexplored, which it was my duty to investigate. To the first I reply, that I thought nothing superfluous which could contribute to the elucidation of the subject proposed; and in answer to the latter I may observe, that there must be some limits assigned to collection and research. It is the office of judgment to select only such materials as will bear upon the point to be discussed; and for the exercise of this judgment, I now stand amenable to the
tribunal

tribunal of the Public. Friendly animadversions upon the errors which may occur, I shall consider, not as a cause of offence, but as the means of correction; and of remarks proceeding from a contrary spirit, I have hitherto had little reason to complain. But if the Work which I now submit to the inspection of the Public, should not obtain the same favourable reception as I have experienced upon former occasions, it shall be my last offence. In the sixty-sixth year of my age, it is time to withdraw from all my pursuits of curiosity, and confine myself to the duties of my profession.

ADVERTISEMENT.

THE account of Marco Polo's Map, given (Part I. p. 201.) from Ramusio, is not correct; for it has since appeared, that the Map in the church of St. Michael di Murano, is not Marco Polo's, but drawn up by Fra Mauro, a geographer at Venice; and is the Map copied for Prince Henry of Portugal.

A Fac Simile of this Map has been taken, and is expected in England every day; when it arrives, a short account of it will be given, and delivered gratis to the purchasers of this work.

The Map of Marco Polo's Travels is in the Doge's Palace at Venice, and was framed from that of Fra Mauro.

I AM to acknowledge my obligations to Mr. Dalrymple, in regard to the present publication, in the same manner as upon former occasions: I was, by his kindness, furnished with Surveys of the Harbours and Islands on the Coast of Malabar, which have been of great use.

And to Mr. A. Hamilton, of Edinburgh, editor of a Sanskreet Dictionary, I have been indebted for the Interpretation of Sanskreet Names on the same coast. This favour was the more acceptable, as I was known to that Gentleman only by my publications; and his offer of assistance was spontaneous.

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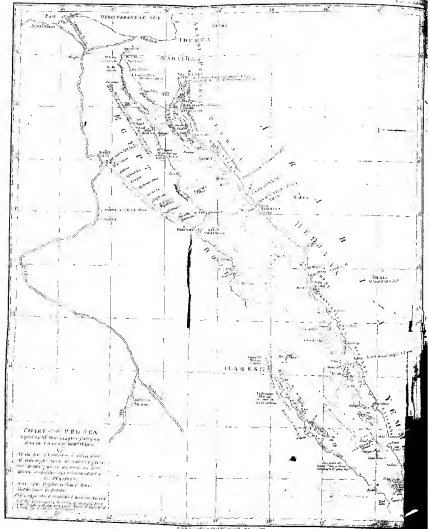


CHART OF THE P. C. S. A.
 showing the coast of the Pacific Northwest
 from the mouth of the Columbia River
 to the Strait of Juan de Fuca
 as surveyed by the U. S. S. Albatross
 in 1841-42
 under the command of
 Commodore W. D. Sloat
 and Lieutenant Z. L. Tanner
 with the assistance of
 the U. S. S. Thetis
 and the U. S. S. Porpoise
 under the command of
 Lieutenant Z. L. Tanner
 and the U. S. S. Fish Hawk
 under the command of
 Lieutenant Z. L. Tanner
 and the U. S. S. Fish Hawk
 under the command of
 Lieutenant Z. L. Tanner

THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A.

A R A B I A.

B O O K I I I.

- I. *Introduction.*—II. *Leukè Komè.*—III. *Petra, Kingdom of Idumèa, Nabatbéans.*—IV. *Voyages distinguishable in the Periplus.*—V. *The Compass.*—VI. *Wealth of Arabia.*—VII. *Tbamudeni and Canraitès.*—VIII. *Burnt Island, Moosa, Coast of Yemen.*—IX. *Expedition of Elius Gallus.*—X. *Straits of Babel Mandeb, ancient Navigation of Scsostris.*—XI. *Aden.*—XII. *Arrangement of the Coast of Arabia on the Ocean.*—XIII. *Kand.*—XIV. *Bay Sacbalites, Hadramaut.*—XV. *Diogkorida, or Socotra.*—XVI. *Moskba and Omana.*—XVII. *Islands of Zenobius, or Curia Muria.*—XVIII. *Sarâpis, or Maseira.*—XIX. *Islands of Kalaius, or Suadi.*—XX. *Islands of Papias.*—XXI. *Sabo, Affabo, or Moçandon.*—XXII. *Terédon, Apólogus, or Oboleb.*—XXIII. *Oriental Commerce by the Gulph of Persia.*—XXIV. *Cairo.*—XXV. *Crusades.*—XXVI. *Gerrba.*—XXVII. *Minéans.*—XXVIII. *Antiquity of Oriental Commerce.*—XXIX. *Conclusion.*

I. **T**HE commerce of the Ancients between Egypt and the coast of Africa, with all that concerns their discoveries to the South, has been traced in the preceding pages; and we now return

again to Egypt, in order to take a fresh departure, and prosecute our inquiries till we reach their final boundary on the East. The present Book will comprize all that concerns the commerce of Arabia, both in the interior, and on the coast.

The Periplûs is still to form the basis of our investigation; but as the object proposed is to give a general account of the communication with the East, no apology is requisite for detaining the reader from the immediate contemplation of the work itself. A variety of scattered materials, all centring at the same point, are to be collected, before a comprehensive view can be presented, or an accurate judgment formed; and if this task can be executed with the fidelity and attention which the nature of the subject requires, the general result will be preferable to the detail of a single voyage, in the same proportion as a whole is superior to its parts.

The commencement, then, of this second Voyage is again from Berenikè, and from this port there were two routes practised in the age of the author; one, down the gulph to Mooza and Okêlis direct, and the other, first up to Myos Hormus, and then across the gulph by the promontory Pharan, or Cape Mahomed, to Leukè Komè in Arabia. This latter route is the immediate object of our consideration.

LEUKÈ KOMÈ.

II. LEUKÈ KOMÈ, or the White Village, I shall place nearly at the Mouth of the bay of Acaba, the Elanitick Gulph of the ancients; and

* A comparative table, containing the different distribution of the ancient names, by M. d'Anville and M. Gosselin, will be given hereafter; and I must mention once for all, that when

and my reasons for assuming this position will be given at large in their proper place. But to this village we are immediately directed by the journal, after a passage of two or three days from Myos Hormus; for here, we are informed, "was the point of communication with Petra the capital of the country, the residence of Malichas the king of the Nabatæans. Leukè Komè itself had the rank of a mart in respect to the small vessels which obtained their cargoes in Arabia; for which reason there was a garrison placed in it under the command of a centurion, both for the purpose of protection, and in order to collect a duty of twenty-five in the hundred" [upon the exports and imports].

We obtain, in these few words, a variety of particulars highly important to the subject of our consideration; for we find a native king under the controul of the Romans, a duty levied upon the trade of the natives, and the nature of the communication between the port and the capital. And if we now reflect that the intercourse with the capital was rather fixed here, at the mouth of the Elanitick gulph, than either at Elana itself, or at Ezion Geber, we shall discover the same principle as operated on the Egyptian coast, where the communication was fixed at Myos Hormus rather than Arsinoë, or at Berenikè in preference to Myos Hormus.

when I make use of M. Goffellin's Researches without mentioning his name, it is not to deprive him of the honour of his discoveries, but because it must occur so frequently that the repetition would be offensive. I had traced this coast many years before the publication of M. Goffellin's Recherches sur la Geographie des Anciens, 2tomes, Paris 1798; and though he precedes me in publication, I will not apply

to him the old complaint, male sit illis qui ante nos nostra dixerunt.

* *ἔκπραξιόνισ*; literally, fitted out.

† In Albuquerque's time, the foldan of Egypt received custom upon spices, and other commodities, at Judda, in the same manner as the Romans had formerly received them at Leukè Komè. Commentar. de A. d'Albuquerque, p. iv. c. 7.

In the age of the Periplus, as this course was the less frequented of the two, so is it apparent that the commerce itself was of less importance; the vessels employed are Arabian, and the duty seems collected on them only: possibly the ships, which touched here after crossing from Myos Hormus, had paid the customs in that port, and made this harbour chiefly for the purpose of accommodation, or of ascertaining their route down the coast of Arabia.

Very different is the idea that I conceive of this trade while the communication with Egypt was in the hands of the Arabians themselves, previous to the appearance of Ptolemy's fleets upon the Red Sea, and their immediate communication with Sabæa; for the caravans, in all ages, from Minæa⁴ in the interior of Arabia, and from Gerrha on the gulph of Persia, from Hadramaut on the ocean, and some even from Sabæa or Yemen, appear to have pointed to Petra, as a common centre; and from Petra the trade seems to have been again branched out in every direction to Egypt, Palestine, and Syria, through Arsinoë, Gaza, Tyre, Jerusalem, Damascus, and a variety of subordinate routes that all terminated on the Mediterranean.

It is not consonant to the design of this work to enter into any commerce antecedent to history; but from analogy, from the magnificence recorded of Ninevè and Babylon, from the ruins of Thebes still remaining, there is every reason to suppose that the wealth and power of these great cities arose from a participation in this commerce; and that the Arabians were the carriers common to them all.

⁴ The position of the Minæi is dubious: from Mecca, tom. ii. p. 116.; Strabo places Bochart supposes them to be in the vicinity of Carans of the Minæans next to the Sabæans, Hadramaut; Gosselin places them two days p. 768.

This is a fact which will admit of proof as soon as history commences; but we may pause a moment to observe, that though the Chaldæans and Assyrians might have been navigators themselves, as the gulph of Persia opened a communication for them with the Indian Ocean, and their works at Babylon and Teredon intimate some attention to the advantages of a naval power; still the Indians', Persians, and Egyptians, seem to have been restrained by prejudices, either political or religious, from distant navigation; and though Persia and Egypt manifestly reaped the profits of an Oriental commerce which passed through these countries to others more distant, either on the north or on the west, still the common centre was Arabia⁵: the Arabians had no obstructions either from manners, laws, habits, or religion; and as there is every proof that is requisite, to shew that the Tyrians and Sidonians were the first merchants who introduced the produce of India to all the nations which encircled the Mediterranean, so is there the strongest evidence to prove, that the Tyrians' obtained all these commodities from Arabia.

⁵ The religion of India forbids the natives to pass the Attock: it is the *forbidden river*. And if their religion was the same formerly as it is now, they could not go to sea; for even those who navigate the rivers must always eat on land.—The Persians, if their religion was that of Zerdusht, could not go to sea; for the Guebres, who build the finest ships in the world at Bombay, must never navigate them. The Egyptians did not only abhor the sea themselves, but all those likewise that used it. Gosselin Recherches, tom. ii. p. 96. Diod. lib. i. p. 78. See also Marco Polo, lib. iii. c. 20. Ed. Ramusio: quello che bee vino

non si riceve per testimonio, ne quello che naviga per mare.

Linschotin in Purchas, vol. iii. p. 1765. writes, "the Abexians [Abyssinians] and Arabians, such as are free, do serve in all India for saylers or seafaring-men."

⁶ Plin. lib. vi. c. 28. Arabes in universum gentes diuissimæ, ut apud quas maxime opes Romanorum Parthorumque subsistant, vendentibus quæ a mari aut sylvis capiunt, nihil invicem redimentibus.

⁷ See Herodotus, who says the name of Cinnamon is from the Phenicians.

PETRA. KINGDOM OF IDUMÆA. NABATHÆANS.

III. BUT if Arabia was the centre of this commerce, Petra⁸ was the point to which all the Arabians tended from the three sides of their vast peninsula⁹: here, upon opening the oldest history in the world, we find the Ishmaelites, from Gilead, conducting a caravan of camels loaded with the spices¹⁰ of India, the balsam and myrrh of Hadramaut; and in the regular course of their traffic, proceeding to Egypt¹¹ for a market. The date of this transaction is more than seventeen centuries prior to the Christian era; and, notwithstanding its antiquity, it has all the genuine features of a caravan crossing the Desert at the present hour.

It is this consideration, above all others, which makes the Petra we have arrived at with the Periplus, an object the most worthy of our curiosity; for Petra is the capital of Edom or Seir, the Idumæa or Arabia Petræa of the Greeks, the Nabatæa, considered both by geographers, historians, and poets, as the source of all the precious commodities of the east. And as Idumæa is derived from Edom, or

⁸ Agatharchides Hudf. p. 57. Πέτρας καὶ τὸν Πεδουσίον . . . ἐς τὴν Γαββᾶν καὶ Μιναιῖς, καὶ πρώτης ἐκ πλουσίων ἔχοντες τὰς διόδους Ἀραβίαι, τὸν τε Ἀδελμαυτίαν, ὡς λόγος, καὶ τὰ φορτία τὰ πρὸς Ἰουδίαν ὑψίστου, ἀπὸ τῆς χώρας τῆς αὐτῆς παραλάγουσι. And Pliny, lib. vi. c. 28: huc convenit bivism eorum qui Syriæ Palmyram petiere et eorum qui ab Gaza veniunt. And again: in Pafitigris ripa, Forath, in quod a Petra conveniunt.

⁹ The sea coast of Arabia is more than 3,500 miles.

¹⁰ In the thirteenth chapter of Exodus the spices of India, and the gums and odours of

Arabia, are mentioned by name; and it is not assuming too much to suppose, that the spices here mentioned are from India also: the term used is תְּבַשְׂמִינִי, Necoth, which signifies any thing bruised or brayed in a mortar, as spices are reduced in order to use them with our food. תְּבַשְׂמִינִי, Tiferi, is a gum or balsam; and לֹט, Lot, is the same, evidently marking the produce of Arabia. See Parkhurst in voce. See also Gen. xxv. 18.; and Cumberland's Origin of Nations, p. 210.

¹¹ Genesis, xxxvii. 25.

Eſau the ſon of Iſaac, ſo is Nabatêa deduced from Nebaioth the ſon of Iſhmael; and Eſau married Baſhemath²², the ſiſter of Nebaioth: Little reſpect as has been paid to the genealogies²³ of the ſcripture by ſome writers of the preſent day, it is ſtill to be conſidered that the Bible may be tried by the rule of hiſtory as well as inſpiration, and that the traditions of the Arabians are in harmony with the writings of Moſes; for they as univerſally acknowledge²⁴ Joktan, the fourth from Shem, as the origin of thoſe tribes which occupied Sabêa and Hadramaut, that is, Yemen and the incenſe country; and Iſhmael the ſon of Abraham, as the father of the families that ſettled in Hejaz, which is Arabia Deſerta; as they do Edom for the anceſtor of the Idumêans, who occupied Arabia Petrêa. Theſe form the three²⁵ general diviſions of this vaſt country and nation, as extraordinary for the preſervation of its manners, as its liberty; and which is continuing at this day to fulfil one of thoſe prophecies which aſſure us of the truth of that Hiſtory in which theſe families are recorded.

The name of this capital, in all the various languages in which it occurs, implies a rock²⁶, and as ſuch it is deſcribed in the Scriptures, in Strabo, and Al Edriſſi; but it is a rock ſupplied with an abundant

²² Gen. xxxvi. 3.

²³ See Gibbon, vol. v. p. 179, note 21. and p. 197.

²⁴ Gen. x. 26, 27. the ſon of Joſtan. Hazemaveſeth is equivalent to Hudzramouth, or Hadramaut.

²⁵ The Arabians divide their country into five, taking in Oman and the eaſtern ſide, under the name of Aronda or Jemama, and making a diſtinct part of the Tchamaor country

below the mountains. See Reiske Ind. Geog. in Alſilfedam.

²⁶ Thomud gives a name to the Thamydeni of the Greeks in this neighbourhood, and is ſufficiently acknowledged by the Oriental writers. The ſprings of Thomud might give riſe to a river, which Pliny mentions, lib. vi. c. 18. and which d'Anville carries into the Lake Asphaltis.

spring of water, styled Thomud¹⁷ by the Nubian, which gives it a distinction from all the rocks in its vicinity, and constitutes it a fortress of importance in the Desert. Strabo did not visit it himself, but describes it from the account of his friend Athenodorus the philosopher. Athenodorus spoke with great admiration of the people, their civilized manners and quiet disposition. The government was regal; but it was the custom for the sovereign to name a minister¹⁸, who had the title of the king's brother, in whose hands the whole of the power¹⁹ seemed chiefly to reside: such a minister (or vizir, as we should now call him) was Syllæus in the reign of Obodas and Aretas, who makes so conspicuous a figure in the history of Josephus, and who was tried and executed at Rome, according to Strabo, for his treachery to Elius Gallus.

¹⁷ The names are,

Rekam; Numbers, xxxi. 8. Joshua, xiii. 21.
Bochart. Canaan, lib. i. c. 44.

Rakim.

Rokom.

Rekemè

A Rekemè; quæ Græcis vocatur Petra. Josephus.

Arkè. Josephus.

Sela; from שֵׁלָא, a rock. Heb.

Hagar, a rock. Arab^{ca}. Herbelot in voce,
גַּרְגַּר, Har. Heb.

Arak, Karak, Krak de Montreal. Crusaders.

Petra, a Rock. Greek.

The Rock, præ eminently. Jerem. xlix. 16.

See Blaney in loco.

But see Schultens (Index Geog. ad vitam Saladini), where he informs us that Hagar and Krak are not Petra, though in the neigh-

bourhood. Petra, he says, is Errakym, the same as the Rekeke or Rakim of Josephus. See Voc. Caraccha, Errakimum, Sjaubech, ibid. The mistake of one for the other he imputes to Bernard. Thesaurarius de Acquisit. Terræ Sanctæ, xxii. 2. 5. It is in lat. 31° 30' 0" Abilfeda. Which, if true, makes it no more than 87 miles from Aila, which he places in 29° 8' 0"; but Schultens says, Petra is in 28° 30' 0" from Abilfeda; if so, it is only 25 Roman miles from Aila. Carak is mentioned as well as Hagiv, by Abilfeda, Reiske, p. 43, where the Moslems were defeated in their first conflict with the Romans.

In the route from Gaza to Karak there are still the ruins of thirty villages, and remains of buildings, pillars, &c. indicating the former wealth of the country. Volney Syria, p. 212.

¹⁸ *ἑνεργητὴς*, as literally a vizir as it can be rendered.

¹⁹ Josephus Antiq. xvi. p. 734.

Moses was forbidden to molest the sons of Edom in his passage through the wilderness; but that there was then a considerable commerce in the country we have reason to conclude, from the conquest of Midian²⁰, in its neighbourhood, by Gideon²¹, not many years after; when gold is described as abundant among the Midianites, and their wealth in camels a proof of the traffic by which they subsisted. In the reign of David, Hadad²² the prince of Edom was driven out, and Hebrew garrisons were placed in Elath and Ezion Geber, where Prideaux supposes that David commenced the trade of Ophir²³, which was afterwards carried to its height by Solomon.

And here, perhaps, it will be expected that the trade to Ophir should be examined, which has so much divided the opinions of mankind, from the time of Jerom to the present moment; but as I have nothing decisive to offer upon the question, I shall only state my reasons for acceding to the opinion of Prideaux and Gosselin, who confine it to Sabæa.

For I neither carry Ophir to Peru with Arias Montanus, or to Malacca with Josephus, or to Ceylon with Bochart, because I consider all these suppositions as founded upon no better evidence than the finding of gold in those countries; but our choice must lie be-

²⁰ Midian is the country of Jethro, on the Elanitic Gulf, called Madian by the Arabs, and Jethro, Scioab. Al Edrisi, p. 109.

²¹ Judges, viii. 24 the people are called Ishmaelites. Gideon for his reward demanded the ear-rings of the men, and the chains on the camels' necks: the decoration bespeaks the value of the animal.

²² Hadad fled into Egypt for protection, a proof of the connection between the two

countries; and his marriage with Pharaoh's daughter proves his rank and estimation. 1 Kings, xi. 19. He attempted to recover Edom in the latter end of Solomon's reign.

²³ David had treasured up three thousand talents of the gold of Ophir 1 Chron. xxix. 4; but this does not prove the voyage, for the gold of Ophir was a common expression. See Job, xxii. 24. xxvi. 16. Psalms, &c. &c. lxxv. 9. See Prideaux's Connections, p. 4.

tween the coast of Africa and Sabæa. Montefquieu, Bruce, and d'Anville, have determined in favour of Africa, principally, I think, because gold has always been an export from that country, while the precious metals were usually carried to Sabæa, to purchase the commodities of the east. I allow great weight to this argument; and I admit the probability of d'Anville's supposition, that the Ophir of Arabia might naturally produce an Ophir on the coast of Africa, which should, by an easy etymology, pass into Sophir, Sophar, Sopharah el Zange, or Sophala: but I by no means subscribe to the system of Bruce, which he has displayed with so much learning and ingenuity; and which he thinks established by the discovery of an anomalous monsoon prevailing from Sofala to Melinda. A sensible²⁴ writer has denied the existence of any such irregularity, and appeals to Halley²⁵, Parkinson, and Forrest; and if the irregular monsoon is annihilated, nothing remains in favour of his hypothesis but the

²⁴ In the Gentleman's Magazine, 1793, p. 222.

²⁵ Halley's account is to be found in the Philosophical Transactions, 1686, p. 153; in which he says, that in the south west monsoon the winds are generally more southerly on the African side, and more westerly on the Indian. So far he is directly adverse to Bruce's system; but he adds, that near the African coast, between it and the Island of Madagascar, and thence to the northward as far as the line, from April to October there is found a constant fresh S.S.W. wind, which, as you go more northerly, becomes still more westerly. What winds blow in these seas during the other half year, from October to April, is not easy to learn, because navigators always return from India without Madagascar: *the only ac-*

count obtained, was, that the winds are much easterly hereabouts, and as often to the north of the true east, as to the southward of it.

The last sentence is all that Bruce has to build his anomalous monsoon on; and it does not prove an anomalous monsoon, but a fluctuation in the regular one.

"The west winds begin the first of April
"at Socotora; the eastern monsoon the 13th
"of October, continues till April, then fair
"weather till May. Neither have they more
"than two monsoons yearly: west monsoon
"blows at Socotora all south; east monsoon,
"all north. After the 5th of September
"ships cannot depart from the Red Sea east-
"ward." Purchas, vol. ii. 193. Keeling's
Voyage.

duration²⁶ of the voyage. The duration it should seem easy to account for, upon a different principle; for the navigators were Phenicians, and we learn from Homer²⁷ their method of conducting business in a foreign port. They had no factors to whom they could consign a cargo in the gross, or who could furnish them, on the emergence, with a lading in return; but they anchored in a harbour, where they were their own brokers, and disposed of their cargoes by retail. This might detain them for a twelvemonth, as it did in the instance to which I allude; and if the Phenicians traded on the Eastern Ocean, as they did in the Mediterranean, we may from this cause assign any duration to the voyage which the history requires.

But my reasons for adhering to the opinions of Prideaux and Gosselin are, first, that Ophir is mentioned²⁸ with Havilah and Jobab, all three sons of Joktan; and all of them, as well as Joktan, have their residence in Arabia Felix, most probably beyond the Straits; and secondly, because the voyage to Ophir seems in consequence of the visit of the queen of Sheba to Jerusalem: it is immediately subjoined²⁹ to it in the same chapter; and Sheba is Sabêa³⁰, or Arabia Felix, as we learn with certainty from Ezekiel³¹. It is particularly added,

²⁶ Pliny, on a much shorter distance, that is, from Azania to Ocila or Okêlis, makes the voyage five years. Lib. xii. 19.

²⁷ *Odyssey*, v. 454.

²⁸ *Genesis*, x. 29.

²⁹ *1 Kings*, x. 10, 11. See Gosselin *Recherches*, tom. ii. p. 121. and Volney, *Syria*, p. 170.

³⁰ Cosmas Indicopleustes supposes the queen of Sheba to be the queen of the Homerites; that is, in his age, the Homerites were mas-

ters of Sabêa. He gives a very rational account of the trade of these Homerites, or Sabêans rather, with Africa, for the spices which the queen of Sheba brought; their intercourse with the Red Sea, Persia and India, and Zingium or Zanguebar; with the gold obtained thence by the Abyssinians, and brought into Arabia, as it is to this day. See Cosmas in Melch. Thevenot, vol. i. p. 7.

³¹ *Ezek.* xxvii. 22. "The merchants of Sheba and Rasmah, they were thy mer-

"chants;

added, that the royal visitant brought a present of spices: "there were no such spices as the queen" of Sheba gave to Solomon."

I do not wish to conceal an objection to this supposition; which is, though they are taxed, that spices are never mentioned as an article of importation from Ophir. The produce of the voyage is gold, silver, ivory, almug-trees²¹, apes, peacocks, and precious stones. But as on the one hand this failure in the invoice will argue much more forcibly against any of the more distant Ophirs which have been assumed; so on the other, it is no proof against Sabêa, that several of these articles are not native; for these, and many more than are enumerated, would certainly be found in Sabêa, if the Arabians were navigators in that age, as we have every reason to suppose they were.

The evidence that Solomon obtained gold from Arabia is express; and as our early authorities notice gold as a native produce among the Debæ²² of Hejaz, so may we conclude that the gold of Africa always found its way into Yemen through Abyssinia, as it does at this day. The import of gold; therefore, we carry up as high as the reign of Solomon, and bring it down to the time of Ptolemy Philadelphus, king of Egypt; for we learn, from the testimony of Ezekiel and Aristeas²³, that spices, precious stones,

and

²¹ chants: they occupied in thy fairs [markets] with chief of all spices, and with all precious stones and gold." In this passage the introduction of gold from Arabia is specific, and the three articles are the same as they continued to be in the reign of Ptolemy Philadelphus. See Aristeas.

²² 2 Chron. ix. 9. from Gosselin.

²³ Almag and Algum are both read in scripture; and Shaw, p. 412. cites the opinion of Hiller, in his Hierophyticon, that

אגל גומיִם Agal Gummim, is, liquidorum guttæ. gum. But in scripture the wood does not appear to be brought for its gum, but for use; and musical instruments were made of it, 1 Kings, x. 12., as Shaw observes, who supposes it to be cypress, still used by the Italians for that purpose. See 2 Chron. ix. 21.

²⁴ Deb is said to signify gold, in Arabick. All the kings of Arabia brought gold and silver to Solomon. 2 Chron. ix. 14.

²⁵ Πρωτὸν δὲ πρῶτον; καὶ τὰς ἀρωματικὰς καὶ λίθων τελευτάς

and gold, were brought by the Arabians³⁵ into Judea. I do not wish to lay more stress upon this testimony than it will bear; but it is not unreasonable to suppose, that the circumstances of this commerce were similar, in an early age, to those of a later period. The removal of these difficulties will shew the inducement which persuades me to join in opinion with Prideaux and Gosselin, upon a question, that has been more embarrassed by hypothesis, and distracted by erudition, than any other which concerns the commerce of the ancients.

The participation of Hiram in this concern is founded upon necessity as well as policy; for if Solomon was master of Idumæa, the Tyrians were cut off from Arabia, unless they united with the possessors; and whatever profit Solomon might derive from the import, the whole of the export on the Mediterranean would be to the exclusive emolument of Tyre. Here the Greeks found the commodities of the east, or received them in their own ports from the hands of the Phenicians; for they were not allowed to enter the harbours of Egypt till the reign of Psammetichus; and the very

ἡρώδης καὶ Ἰβηρίων ἀναγορεύοντες ἅδ' ἐν τῷ Ἀράβῳ ἐν τῷ τόμῳ. *Arabeus*, p. 40. Ed. Wells, t. xon. 1642. If *Arabeus* is not good evidence for the Septuagint version, his testimony may be taken for the truth of the age in which he lived. I imagine this to be the same commerce as is noticed by Strabo (*lib. xvi. p. 81.*), where we learn that the Tyrians traded through Rhinocolûra to Petra and Leukè Komè. Harris (*vol. i. p. 359.*) supposes the Tyrians to be masters of Rhinocolûra; which knowledge he seems to draw from Prideaux (*Com. part. ii. p. 56. & part. i. p. 7.*); but if it depends on the passage of

Strabo, it does not follow that the Tyrians were masters of the place, however their trade passed through it. But Rhinocolûra by its situation on the limits of Phenicia and Egypt, was certainly adapted in a peculiar manner for keeping open the communication. Prideaux's account of Idumæa and this trade (*part. i. p. 17.*) is highly accurate and comprehensive; but we have no date of the fact recorded by Strabo.

ὅτι τῷ Ἀράβῳ, perhaps, through the country of the Arabians. Agatharchides is also an evidence in favour of the exportation of gold from Arabia: *ὅτι τοῦ Ἰβηρίου τῷ Πτολεμαῖοι Σόβαν παραστήσαν, p. 64.*

names of the articles they obtained were derived from the Phenicians, as we are informed by Heródotus³⁷.

The possession of Iduméa by the kings of Judah continued little more than an hundred years, to the reign of Jehoram, when the Iduméans revolted³⁸, and were not again subdued till after an interval of eighty years, in the reign of Uzziah³⁹. Seventy years after this, the Syrians⁴⁰ seized upon Elath; and here terminates the trade of Ophir, in regard to Israel; and probably in regard to Tyre, with the capture of that city, about an hundred and sixty years later, by Nebuchadnezzar.

Whether Nebuchadnezzar over-ran Iduméa, is a question that history⁴¹ has not resolved; or whether he besieged Tyre with any view of opening a communication with the Mediterranean, is equally unknown; but that he had some plan of commerce on the gulph of Persia in contemplation, we may judge from a curious fragment of Abydenus⁴², which informs us, that he raised a mound or wall to confine

³⁷ Τὸ δὲ δὴ κιννάμωμον ἐστὶ τῶν Σουμασσοῦντων
καλλίστην· ἄλλο μὲν γὰρ γίνεσθαι, καὶ ἕως μὴ γῆ ἢ
τρίψασθαι ἐστὶ, ἕκ ἔχουσι ἰστίον. Ἐριδίας δὲ
λέγουσι μεγάλας φορῖνας ταῦτα τὰ κόκκησιν, τὰ ἡμαῖς
ἐπὶ Φοινίκων μαζόντων κιννάμωμον καλλίστην, lib. iii.
p. 253.

³⁸ The cinnamon is still more extraordinary;
³⁹ for where it grows, or what country pro-
⁴⁰ duces it, they cannot say; only the report
⁴¹ is, that birds bring the little rolls of the
⁴² bark which we, from the Phenicians, call
"cinnamon." Herodotus supposes it, indeed,
to come from the country where Dionýsus,
or Bacchus, was born, that is, India; though
there is a fable that he was born in Sabæa:
but its progress is clearly marked through

Arabia to Tyre, and thence into Greece with
its Tyrian name.

³⁸ 2 Kings, viii. 22.
³⁹ 2 Kings, xiv. 22.
⁴⁰ 2 Kings, xvi. 6.

⁴¹ It is highly probable, from the woe of
Edom in the 49th chapter of Jeremiah.

⁴² Scaliger Emend. Temp. Fragm. p. 13.
Νεβουχδανέζαρτος . . . τὸ τὸ Ἀρμανάδος ποταμὸν
ἐξέγαγεν ἰστίον κίνας· Ἐυφράτην . . . ἐνετείχετο δὲ
καὶ τῆς Ἐρυθρῆς θαλάσσης τὴν ἐπιπέδου καὶ Τυρῶν
πόλιν ἰστίον κατὰ τὸν Ἀράβων ἰσθμὸν.

There seems also to be another canal men-
tioned by the name of Akrakanus, and a basin
above the city of the Sipparensians; and that
these were all formed with a commercial view,

confine the waters at the mouth of the Tigris⁴²; that he built the city of Terédon, to stop the incursions of the Arabs; and opened the Nabarmalca in Babylonia, which unites the Tigris with the Euphrates. These transactions may lead us to suppose that this conqueror would turn his attention to Idumæa, and the gulph of Arabia, as well as to the Persian Gulph and Tyre; and if he did, the conquest would have been easy, either when he was in Judæa, or during his march into Egypt.

From this time till the death of Alexander we have no account of Idumæa; but soon after that event, we meet with two expeditions of Antigonus directed against Petra; one under Athenæus⁴³, and another by his son Demétrius. Both had an unfortunate termination; but the country was still harassed by the rival sovereigns of Syria and Egypt, experiencing the same fate as Judæa, from its similar situation between both, sometimes subjected, and sometimes free; till there arose a dynasty at Petra, parallel to the Maccabees at Jerusalem; and, like them, partly independent and partly under the influence of the more powerful monarchies on either side.

we may judge by what Arrian says of Terédon: "that it was, when Nearchus arrived there, the mart to which the merchants brought their libanon, and other odoriferous drugs, from Arabia." Arrian, lib. viii. p. 35. *Ἀριῆστις, . . . ἵνα λιβανόντι τε ἀπὸ τῆς ἰμαθίας γῆς ἢ ἱμαθίου ἕρπυλας, καὶ τὰ ἄλλα ἐκ τῶν θυμιαμάτων ἐκ τῆς Ἀραβίας γῆς φέρῃ.* This (ἱμαθίᾳ γῆ) mercantile country may be supposed equivalent to Grane; and the whole corresponds with the traffic which now exists between Grane and Basra; so constant is the nature of this commerce, from the time of Nebuchadnezzar to the present hour. Have we not therefore a right to assume it in ages antecedent to the

Babylonian monarchy? The continuance of it in after-times we learn from Nearchus, Strabo, &c.; and when Trajan was here, in the Parthian war, he saw a vessel setting sail for India, which excited in his mind the remembrance of Alexander, and a desire of invading India, if he had not been so far advanced in years.—Xiphilinus in Trajano.

⁴² It is called the inundation of the Erythrean Sea, and is in reality at Alphadana, in the mouth of the Shat el Arab; in which neighbourhood mounds of this sort are still preserved. See Voyage of Nearchus, p. 436.

⁴³ Diodorus, lib. xix. p. 391.

I give the following catalogue of Sovereigns, as well as I have been able to collect it from Josephus, without vouching for the correctness of the extract, or supposing the list to be complete; but such as it is, it will elucidate the commerce which has been proved to exist in this country, and bring the history of it down to the period when the Romans obtained an influence in the government, and the command of the coast; in which state it was found by the Author of the Periplus:

Years before Christ.	The two expeditions of Antigonus into Idumæa, as nearly as we can state them, were undertaken in the years before our era, 309 and 308.
309. 308.	Malchus ⁴⁵ —is the first king of Idumæa at Petra, mentioned by Josephus (Antiq. p. 569. Hudson's ed ^t , and the 1 Maccabees, xi. 39.): he is styled Simalcuc; and had protected Antiochus VI. restored to the throne of Syria, in 144, by Diódotus, called Tryphon.
144.	
126.	Aretas—assisted the city of Gaza besieged by Alexander Sebina, about the year 126. (Josephus Antiq. 595.)

⁴⁵ Mek, Melek, Malik (Arab^{ic}), are all from מלך, a king (Heb^{rew}). In regard to Aretas, see Josephus, lib. xiv. cap. 3. 4. and lib. i. cap. 6. Bel. Jud. where he mentions the conduct of Aretas in regard to Hircanus and Aristobólus. See also the Universal Hist. vol. vii. fol. ed. Pliny, vi. 28. Strabo, Diodor. 111. 516. an. 730. Trajan in Arabia, Dio. xviii. 777. And Severus. Dio in Trajano, 948.

Theophanes, p. 124. mentions an Arethas, anno 49. 556. 558, p. 207.

Perhaps every one of these princes was styled Malchus, or Malichus, *the* King; but Darius is a proper name, though Dara is said to signify King, Emperor, or Royal. Si Malcuc is some corruption or other of Malchus. Aretas is the Greek form of El Haretich, as Antipater is of Antipaa. El Haretich occurs often. Mahomet married the daughter of an El Haretich. Abulieda. Reiske, p. 43.

Years before
Christ.

125.

O'bodas⁴⁶—is either the same as A'retas, or his successor within the year: he defeated Alexander about the year 125. (Josephus Antiq. 596.)

63.

A'retas II.—is the king to whom Hyrcanus, of the family of the Maccabees, high priest and king of Judæa, fled, when driven out by Aristobólus. A'retas restored him with an army of 50,000 men, about the time that Pompey came to Damascus in the Mithridatic war, in the year 63. In this reign commenced the connection of the Maccabees with Antipas, or Antipater, the Idumæan, and the father of Herod, which terminated in the destruction of the whole family. (Josephus Antiq. 608, 609.) Pompey took Petra (Dio, Latin copy, p. 23.); and from that Period the kings of Idumæa were, like the other kings in alliance with Rome, dependant, obliged to furnish auxiliaries on demand, and not allowed to assume the sovereignty without permission of the senate, and afterwards of the emperors. The interval between O'bodas and this A'retas I have not been able to fill up.

47.

Malchus II.—must have commenced his reign before the year 47; because in that year Cesar was at Alexandria, and Malchus is mentioned by Hirtius as one of the allied kings to whom Cesar sent for succours. (De Bello Alexandrino, p. 1. Hudson.

⁴⁶ O'bodas is written O'bedas by Strabo, same name as Abudah, familiar to every ear and O'bedas by others. It seems to be the same as an Arabian name.

Years before
Christ.

39.

Periplus, p. 11.) This Malchus⁴⁷ was in Judæa when the Parthians took Jerusalem, and restored Antigonus; at which time Herod fled to Petra. (Josephus Antiq. 644.) The Parthians were defeated by Ventidius in the year 39 (Dion Cassius, Lat. p. 235.); and Malchus was still king in 30 (Josephus Antiq. 648. 677.); and he is styled Malichus by Josephus. (Bel. Jud. 990.)

24.

O'bodas II.—must have commenced his reign before the year 24; because in that year Elius Gallus invaded Arabia, attended by Syllæus, minister of O'bodas and Syllæus, was tried at Rome and executed for his treachery, according to Strabo (p. 783.); but Josephus says, on account of charges brought against him by Herod, whose cause was pleaded by Nicolaus of Damascus. This trial did not take place till the reign of the successor of O'bodas. (Jof. Antiq. 728, et seq.)

12.

Aretas III.—seized the throne on the death of O'bodas, about the year 12, without applying to Rome for the consent of the emperor (Jof. Antiq. 736.); and by that act incurred the displeasure of Augustus, which however he appeased. The trial of Syllæus took place in this reign, who was accused of poisoning O'bodas, and attempting the life of Aretas, among the other charges brought against him. This Aretas, or another of the same name, was on the

⁴⁷ He was fined by Ventidius. Dio, lib. xlviii. 234. Lat. ed.

throne

Years after
Christ,
36.

throne as late as the year 36 after Christ, which is the last year of Tiberius; for Vitellius, proconsul of Syria, was preparing to march into Idumæa, but was stopped by that event. (Jof. Antiq. 728. 736. 755.) It is in this reign we may place the visit of Strabo's friend, Athenodorus, to Petra, who found it, as described above, in a civilized and flourishing state.

Aretas IV.—whether another, or the same as the last, is dubious.

Much disappointment have I felt in not being able to discover any successor to Aretas, in Josephus or Dion Cassius; because I have great reason to believe, that in his immediate successor, or in the following reign, we should have found another Malchus, or Malichus, the same who is mentioned by the Periplus as the sovereign of Petrea, when the author frequented the port of Leukè Komè. We learn, however, from this brief account, the commencement of the Roman influence over this government under Pompey, and the continuance of it till the death of Tiberius; and it will hence appear very evident, how a Roman garrison was introduced into Leukè Komè, and the revenues of the port diverted from the possession of the native kings into the Roman treasury. The immediate date of that transaction I cannot fix; for Elius Gallus appears to have had little knowledge of Leukè Komè till he was conducted⁴⁸ thither by Syllæus; and, as he returned from

⁴⁸ But he staid there all the latter part of so that he might well leave a garrison there the summer, and the winter, Strab. xvii. p. 781. at his departure.

another port, he had not the opportunity of leaving a garrison at this harbour before he embarked. This makes it highly probable that the introduction of this garrison was in the reign of Claudius, who evidently collected a revenue from the coast of Arabia, as we learn from the circumstances related by Plócamus, and might well commence his system from the head of the gulph.

It may be here observed, that the princes of this dynasty at Petra are almost universally called kings of the Nabatéans by the historians; and the prevalence of this tribe of Nebaioth over the Idumæans is placed by Prideaux⁴⁹, with his usual accuracy, during the Babylonish captivity, agreeing admirably with the existence of their sovereignty in the reign of Antigonus, and countenanced by Strabo⁵⁰, who mentions the expulsion of the Idumæans. If this, therefore, be the origin of the dynasty, its termination is in the reign of Trajan, when Petræa was reduced into the form of a Roman province⁵¹ by Palma⁵², his lieutenant⁵³. Still, under the

⁴⁹ Prideaux, *Con.* vol. i. p. 9; vol. ii. p. 155.

⁵⁰ Strabo, lib. xvi. p. 760.

⁵¹ Under the name of *Palæstina Tertia*; there is a coin of Adrian's.

⁵² See Xiphilius *Ed. Basil.* p. 553. in Trajano, who mentions likewise, p. 557. that Palma was afterwards put to death by Adrian.

⁵³ It is evident that the Roman power was never very firm in this province, at least under the latter empire; for Justinian was obliged to subdue it after a considerable lapse of independence; and Procopius, Cedrénus, and Théophanes, constantly notice an A'arethas, either at Petra or in Idumæa, who was considered as an Arab sovereign in the Roman interest, in opposition to an Al Mondar under the protection of Persia. The seat of this Al Mondar was at Hira, on the Bahr Nedjef, a

lake near the Euphrates [see *d'Anville's Map* of the Euphr. and Tigris]; and these Arabian powers seem usually to have been set in motion by the Romans and Persians, whenever a war was about to commence between the two empires. See Théophanes *Byz. Hist.* p. 496. *Univ. Hist.* p. 272. fol. ed. which says, A'retas is Al Hareth. O'bodas, Abd Wad. Théophanes expressly mentions the defeat of an A'arethas, and the restoration of the tribute, or custom, on India goods, anno 27, Anastasii, that is, the year 488. See also the year 556, p. 203. where an A'arethas, the sheik appointed by the Romans, complains of the Persian sheik Abar, son of Al Mondar; another A'arethas, was with Belisarius in Isauria. Procop. *Hist. Arcan.* p. 8.

latter empire, we meet with an Aretas in Procópius; and possibly, according to the fluctuating power of the empire, it was at times subject, and again independent, according to the change of circumstances, till it was finally reduced by Mahomed in person. This is a fact so singular that, as I shall make it the termination of my inquiries, the reader will pardon a digression that is foreign to the subject. For Mahomed marched against this country with an army of thirty thousand men, of which one-third was cavalry: he took Hagjr⁵⁴, the capital of the Tschamudites⁵⁵; and John, the prefect of Aila⁵⁶, submitted to pay a tribute of three hundred pieces of gold⁵⁷. Now if Hagjr be not the Hagar of the Hebrews, the Petra of the Greeks, it is at least a hill fort in the same country, and maintained the same rank as the seat of government. Aila is the Elath of the scriptures, still at that period under the power of Constantinople (if we may judge from the name of John the governor), so late as the reign of Heraclius. This expedition is the more remarkable, as it is the first successful attempt of the Mahomedans beyond the limits of the Hejaz⁵⁸, and the prelude to the conquest of Syria by

⁵⁴ See note 17.

⁵⁵ The Thamydeni of the Greeks.

⁵⁶ Abilfeda Reiske, p. 52.

⁵⁷ Trecentos nummos aureos. If it is the Roman aureus, the value varied, according to Arbuthnot, from 17. 4s. 3d. to 16s. 11d., which admits a medium of twenty shillings. Aila was no longer the port of the trade of Ophir.

⁵⁸ See Gibbon, vol. v. p. 245. The superstition of a bigot never went to greater excess in defence of his faith, than the fanaticism of philosophy has carried Gibbon, in softening the vices, cruelty, hypocrisy, and imposture,

of Mahomet, or in amplifying his courage, his eloquence, and abilities as a statesman or a general; but at the same time, notwithstanding this defect (which is radical), and notwithstanding the detestable comparisons which he invidiates, the extent of his research, the use, selection, and arrangement of his materials, form one of the most brilliant specimens of his talents as an historian. In regard to this last transaction of Mahomet, I apprehend Gibbon is mistaken: he says, the prophet received the submission of the tribes from the Euphrates to the Red Sea; but according to Abilfeda, he subdued Hagjr and Aila only; and

by the immediate successor of the prophet. This expedition, therefore, it was, which opened the way to all their succeeding victories over the declining power of the Romans in the east.

This account of Arabia Petræa, from the time of the Patriarchs to the rise of the Mahomedan power, is essentially connected with the object of the present work; because the whole commerce of the east originally passed through this province to Phenicia, Tyre, and Egypt; for the Minæans, who were the conductors of the caravans from Sabæa to Hadramaut, and the Gerrhiæans from the gulph of Persia, both pointed to this centre; and notwithstanding that the caravans decreased in proportion to the advance of navigation, still Petra was a capital of consideration in the age of the Periplus: there was still a proportion of the trade passed from Leukè Komè to this city, and its princes maintained a rank similar to that of Herod in Judæa. In all the subsequent fluctuations of power, some commercial transactions⁵⁹ are discoverable in this province; and if Egypt should ever be under a civilized government again, Petræa would be no longer a desert.

Whether the Idumæans had been navigators previous to the time of Solomon and Hiram; and whether those princes occupied the ports of Idumæa in order to turn this navigation to their own advantage, or were the first to venture on it themselves, must be a matter of conjecture; but that the Arabians of this province, or more probably of those farther to the south, were the first navigators whom history mentions, upon the Indian Ocean, is evident: first,

and if the tribute was no more than 300 aurei, the conquest was of importance only as it opened the road to Syria. See Abulfeda, Reiseke, Lipsæ, 1754, p. 52.

⁵⁹ Γάζον τόμισον τῆς ἰσημῆς κατὰ τὸ Σίνας ἔροι πλουσίον σφάδμα. Cedrenus, 429.

Gaza, the key of the desert of Sina, a country very rich.

from Nearchus⁶⁰, who found the traces of it on the coast of Gadorfia; and, secondly, from Agatharchides, who distinctly mentions the great ships in the ports of Sabæa which traded to India; and if the works of Eratosthenes⁶¹ were extant, we should learn how the Greeks obtained their knowledge to the east of Cape Comorin, before any fleets had sailed from Egypt beyond the Straits of Bab-el-mandeb.

But whatever previous sources of information we might trace, it is from the Periplus itself that we can discover no less than six different courses of the ancients in these seas, all prior to the age of the author, or practised by different navigators at the time he wrote.

IV. VOYAGES DISTINGUISHABLE IN THE PERIPLUS.

I. THE first is the voyage, described in the two previous books, down the coast of Africa to Rhaptum; shewing that the Arabians had settlements in that country, before it was visited by the Greeks from Egypt.

⁶⁰ He found Arabick names of places, a pilot to direct him, and vessels of the country, at Apostani, in the gulph of Persia. See Voyage of Nearchus, p. 351.

⁶¹ Marcian of Heraclea informs us, that Eratosthenes took the whole work of Timosthenes, preface and all, as it stood, and in the very same words: this confirms an opinion that I have already ventured to give, that Eratosthenes was more of a geometrician than a geographer. Marcian, indeed, does not speak very highly of Timosthenes, and yet, by this account, it should seem that Eratosthenes's knowledge of the Thineæ was from

Timosthenes, who had commanded the fleet of Ptolemy Philadelphus on the Indian Ocean, and had gone farther down the coast of Africa than any other Greek of his age. See Marcian in Hudkon, p. 64: he calls him Ἀρχιναυτίκων τῶν ἐναντίου Περσῶν. Strabo styles him Ναυαρχος. See Pliny, Hardouin, p. 132. Marcian mentions likewise Sofander, a pilot, who wrote on India. Still there is an obscure knowledge of the Thineæ, and the Golden Cherfonese, prior to all these geographers, as appears from the Treatise de Mundo in Aristotle, if that be a genuine work of the philosopher.

II. Secondly,

II.⁶² Secondly, we are informed of the two distinct courses within the Gulph: one from Myos Hormus, across the head of the gulph to Leukè Komè, and thence down the Arabian coast to Mōoza; and another, from Berenikè to the same port direct.

III.⁶³ Next to this, we collect a voyage from the mouth of the Straits along the southern coast of Arabia into the gulph of Persia, extending afterwards to Bahrein, El Katif, and Oboleh, in the Shat-el-Arab.

IV.⁶⁴ Then follows a passage from the Straits to India by three different routes: the first, by adhering to the coasts of Arabia, Karmánia, Gadrófia, and Scindi, to the gulph of Cambay; the second, from Cape Fartaque, or from Ras-el-had, on the Arabian side; and the third, from Cape Gardesfan, on the African side, both across the ocean by the monsoon to Muziris, on the coast of Malabar.

V.⁶⁵ After this, we must allow of 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 Philométer, met this commerce in Sabêa.

VI.⁶⁶ And lastly, we obtain an incidental knowledge of a voyage which confirms all that has been advanced concerning the early commerce of the Arabians, previous, in all appearance, to every account we receive from the Greeks, and conducted, certainly, by the monsoon, long before Hippalus introduced the knowledge of that wind to the Roman world.

⁶² Periplus, pp. 12. 14.

⁶³ Periplus, pp. 19, 20.

⁶⁴ Periplus, pp. 20, 21, 22, 32, 33.

⁶⁵ Agatharchides apud Hudson, pp. 64, 66.

⁶⁶ Periplus, pp. 8, 9.

It is the voyage between the opposite coasts of India and Africa, connected certainly with the commerce of Arabia, but still capable of being considered in the abstract, and proving, in my opinion at least, the possible existence of this intercourse in ages antecedent to all that history can reach. If it could be believed that the natives of India had' been navigators in any age, we might more readily admit their claim in this instance than in any other; for the author mentions, that the imports into Africa are the production of the interior, from Barugáza and Ariakè; that is, from the coast of Cambay and Concan: and the articles specified confirm the truth of his assertion; for they are, rice⁶⁷, ghee, oil of sesamum, cotton, muslins, safes, and sugar: these commodities, he adds, are brought sometimes in vessels destined expressly for the coast of Africa; at other times, they are only a part of the cargo out of vessels which are proceeding to another port. Thus we have manifestly two methods of conducting this commerce, perfectly distinct: one, to Africa direct; and another, by touching on this coast, with a final destination to Arabia. This is precisely the same trade as the Portuguese found at Melinda and Quiloa, and the same connection with Arabia; and this is the reason that the Greeks found cinnamon, and the produce of India, on this coast, when they first ventured to pass the Straits⁶⁸, in order to seek a cheaper market than Sabêa.

⁶⁷ Periplus, p. 9.

σίνες, Wheat.

ῥιζα, Rice.

Γάουρον Butter, i. e. Ghee.

Ἰναιον σπασάμιον, Oil of Sesamum.

Ὀβόλον { ἢ μινναχὴ, Cotton Cloths, Muslin.

{ ἢ σαγματογάνη, Cotton in the Wool,
for stuffing Beds, &c.

σαζάμιον, Safes.

μῆλι τὸ καλαμίον,

τὸ λιγύμιον σάκχαρι, } Sugar.

⁶⁸ The passing of these straits is ascribed to Sesostris by Herodotus and Diodorus, which, if the whole history of Sesostris be a fable, is still a proof that Herodotus knew some object was to be obtained by the attempt. He adds

Sabæa. Still it must be doubted, whether this commerce was conducted by natives of India, or Arabians; for Arabians there were on the coast of Malabar, and in such numbers at Ceylon, that Pliny⁹⁹ represents them as masters of the coast, like the Europeans

(lib. ii. p. 109.), that Sesostris advanced into the Erythrean Sea till he was stopped by shoals; a proof to me, that he entered the Bay Avalites, and went no farther. But Diodorus (lib. i. p. 64.) carries him by sea to India, and by land, to the eastern coast of China: so little trouble does it cost an historian to convey his hero to the world's end, when he is not embarrassed with circumstances. If any date could be affixed to the reign of Sesostris, if his conquests could be reconciled with the history of the nations he is said to have conquered, I should think it highly probable that he knew of an Indian commerce in Arabia, or Africa, and wished to partake of it; and even as the fact stands, it appears as if Herodotus was fully justified in supposing, that some attempts had been made by the Egyptians to enter the Erythrean Sea. But the Egyptians seem to have attributed all their wonders to Sesostris, as the Greeks did theirs to Hercules; and it is as difficult to reconcile the date of his reign to reason, as the chronology of the Egyptians to scripture. The truly learned and most excellent translator of Herodotus professes his belief in scripture, and deprecates all conclusions against the scriptures which may be drawn from his chronology: it is a protest of importance, because his first date makes the establishment of Egypt 13,566 years, and the building of Memphis 8,352 years prior to the creation, according to the Mosaic account; and it is not without a sense of the contradiction that we read the following words: "Il est donc constant

" que notre historien a été le fidèle interprète
" des préteurs Egyptiens, & qu'il n'y avoit pas
" la plus légère incohérence dans leur récit."
Chronol. Herod. p. 222. 1st edit. But M. Larcher will not now be averse to see these priests convicted of an incoherence, which is, an interval of near eleven thousand years between the building of the Temple of Ptha by Menes, and the adding a propylæum to it by Moeris. This is about a duplicate of the absurdity which would strike the mind of an Englishman, if he were told that the dome of St. Paul's was built by Adam, and the portico added by Q. Anne.

Since the time that these observations were made; we have another edition of Herodotus by the same excellent translator, who, in the 76th year of his age, repeats his belief in the scriptures, and recalls every thing in his works that may seem of a contrary tendency to the history they contain. I rejoice in the addition of such a name to the catalogue of believers; I admire the fortitude that inspired the profession, and I trust that the example will be efficacious in recalling others to the truth.

⁹⁹ Pliny, lib. vi. c. 22. Regi, cultum liberi patris, ceteris, Arabum; that is, the king retained the native worship of the Indian Bacchus, above the Ghauts; while the inhabitants on the coast were Arabians, or had embraced the superstition of the Arabians.

The Portuguese made a Christian king of Candy; but the Dutch and English have been less zealous for their faith than the Arabians, either when Idolators or Mahometans.

of the present day, who have confined the native sovereigns to the country above the Ghauts, and have possessed themselves of the level towards the sea; such also was their situation, though under the name of Moors, or Mahometans, when the modern Europeans met with them again upon their arrival at Calicut, where their influence over the native government long counteracted all the power of the Portuguese.

These are the reasons which induce a supposition, that the whole of this intercourse, on both sides, was in the hands of the Arabians⁷⁰; but it must be left to the determination of those who have been resident in India, how far the superstition of Braminism descends to the Parias, the lower cast, or those who have lost all cast, so as to permit or forbid their venturing on the ocean. That there was an ulterior commerce⁷¹ beyond Ceylon, is indubitable; for at Ceylon the trade from Malacca and the Golden Chersonese met the merchants from Arabia, Persia, and Egypt. This might possibly have been in the hands of the Malays, or even the Chinese⁷², who seem to have been navigators in all ages as universally as the Arabians, and both might profit by the prejudices which seem to have excluded the Hindoos from a participation in these advantages.

There appears no method of tracing this commerce through the darkness of the middle ages, but by the few scattered intimations to be collected from Cosmas, William⁷³ of Tyre, Sanuto⁷⁴, Renaudot's Arabian Voyages, and Marco Polo; but their general testimony is

⁷⁰ I find this connection of Arabians with India supported by Poccocke, Sir Wm. Jones, and Sir Wm. Ouseley. See Ebn. Hauksl, p. 291.

⁷¹ Pliny, when he mentions the embassy from Ceylon.

⁷² Marco Polo, lib. iii. c. 1. speaks much of Indian ships, but they seem to be Chinese.

⁷³ See Bergeron *Traité sur la Navigation*.

in favour of the preceding suppositions, and which, as I have no system to maintain, I should abandon as readily as I have adopted; if ever the weight of evidence should preponderate against them. In the time of Marco Polo, the Arabians had not only increased on the coast of India, but made considerable progress in extending the doctrines of the Coran: he mentions the trade from China⁷⁶ which met the trade from the Red Sea, no longer in Ceylon, but on the coast of Malabar; and though he remarks that the Chinese vessels sometimes penetrated farther, even to Madagascar, yet the central mart is manifestly in Malabar, and apparently at Calicut, where the Portuguese found it upon their first arrival. Here, he says, the ships from Aden obtained their lading from the East, and carried it into the Red Sea for Alexandria, from whence it passed into Europe by means of the Venetians.

THE COMPASS.

V. How these voyages were performed in the seas of India or China, without the compass, is a circumstance so extraordinary, that many writers have rather assigned that instrument to the Chinese, than supposed it possible that such voyages should be performed without it. Highly extraordinary it certainly is, that the Chinese, who now never go beyond the limit of Japan on the east, Malacca on the west, or Java on the south, should have sailed to Madagascar in the thirteenth century; their knowledge must in that age have

⁷⁶ Lib. iii. c. 27. In the 9th century, the age of Renaudot's Arabs, the centre was at Coulam in Travancore. After the establishment of the kingdom of Calicut by Ceram-

perumal, the trade centred there. M. Polo was in India in the 13th century, 300 years later than Ceramperumal.

been proportioned to their adventures; and I would not wish to contest the point with those⁷⁵ who would furnish them with means or instruments to qualify them for the undertaking; but Ramusio⁷⁶ is clearly of opinion, that Marco Polo did not bring this instrument from China; and that he did not know it himself, because he never mentions it. This negative evidence in regard to China, becomes positive, according to Nicolo di Conti, in regard to India; for he sailed aboard a native vessel on the Indian seas, about the year 1420⁷⁷; and he says expressly they had no compass, but sailed by the stars of the southern pole, the elevation of which they had the art of measuring; and that they had also a method of keeping their reckoning by day or night, with their distance from place to place; that is, as we should speak in modern terms, they had a quarter-staff or astrolabe, and log, but no compass.

The date of this voyage, sixty or eighty years previous to the discovery of Gama, makes it highly interesting; and the information is unique, for Nicolo sailed on board an Indian⁷⁸ ship; and that the navigators made use of the south polar stars, is a most extraordinary agreement with the account of Ptolemy; who says, they navigated

⁷⁵ Lord Macartney is fully convinced that the Chinese compass is not derived from the Europeans: his reasons for this may be seen in a paper with which he has furnished me (Appendix, No. 1.); and has obligingly permitted me to publish with his name.

⁷⁶ See Dichiarazione sopra M. Polo, Ramusio, vol. ii. p. 17.

⁷⁷ He was absolved by Pope Eugenius IV. in 1444 of apostacy, after having been in India 25 years; so that the date of his voyage, in this instance, may be from 1420 to 1430.

⁷⁸ Il naviganti dell' India si governano colle stelle del polo antartico . . . & non navigano

col bussolo, ma si reggono secondo che trovano le dette stelle o alte, o basse; et questo fanno con certe lor misure che adoperano, et similmente misurano il cammino che fanno di giorno et di notte, & la distanza che e da un luogo all'altro, et così sempre fanno in che luogo si ritrovano essendo in mare. Ramusio, vol. i. p. 344.

If *similmente* refers to the preceding clause, it means that they kept their reckoning, not by the log, but by the stars, which is, in that case, a knowledge of finding their longitude as well as their latitude by astronomy.

the Indian Ocean in his age by means of the star Canobus, which they called the *Horfe*. I should have been glad to find the mariners on board this ship had been Arabians; but the description of the vessel is characteristically like those which M. Polo sailed in on the Chinese seas, separated into compartments, which the respective merchants on board hired each for himself and his property; and which were distinctly caulked, so as to prevent a leak in one part affecting any other: such vessels are still in use on those seas, but are more properly Chinese or Malay, than Indian.

The testimony of N. di Conti is direct against the use of the compass in the ships of India, but still it is not conclusive against the Chinese; for Vertoman, or Barthema, in his passage from Borneo to Java, in a *ciampian*, or small Chinese vessel, expressly mentions, that the pilot⁷⁹ had a compass. And this testimony is of greater importance, because the date of his voyage from Borneo must be in 1503 or 1504, as he returned to Calicut in 1506, when Almeyda was viceroy. Now 1504 is seven years previous⁸⁰ to the arrival of the Portuguese at Malacca: so that the Chinese could not have had it from the Portuguese; and if the ships of India had it not, they could not have received it through that medium of communication. There is something very strong, likewise, against their receiving it from the Arabs, whom they might have met at Calicut in the fifteenth century; because, if the Arabs then used it,* it was in the form they derived it from Europe, and divided into thirty-

⁷⁹ *Moderator navis pyxidem, magnetemque nec non paginam marinam, cum pluribus lineis distinctam, qua ventorum rationem insinuant, secum, more nostro attulerat.* Grynæus in Barthema, lib. vi. c. 27. Ramusio, vol. i. p. 168. *More nostro* (I think) refers to the sea card;

but if to the whole, it does not quite prove whether Barthema had marked the difference between 32 and 48 points.

⁸⁰ The Portuguese reached Malacca in 1511. Dakymple, p. 3. Collections.

two points ; whereas the Chinese compass is divided into forty-eight, which seems almost conclusive that theirs was an original instrument, and not derived from Europe.

WEALTH OF ARABIA.

VI. AFTER the recital of these circumstances, it is still to be considered, that in the whole of what has been said, it is intended to speak only in general terms : it is not meant to assert, that no ships went to India from Egypt before the reign of Ptolemy Philomêtor, or that no Greeks, in a later age, passed beyond Ceylon to Bengal, or the Golden Chersonese ; but that the ordinary course of Oriental commerce was conducted in the way that has been stated, there is every reason to believe, and every evidence that is extant to prove. The value of this commerce, in the hands of the Arabians, is equally evident : their wealth was proverbial, and the particulars of it are detailed by Agathârchides. But there is still one point in which the Arabians are essentially distinguished from all the surrounding nations, which, through their means, partook in the commerce of the east ; which is, that however ostentatious their neighbours might be, the riches of the Arabians were all applied to their private luxury and indulgence. In Persia, and Chaldæa, those vast public works and edifices arose, which astonished the travellers of the ancient world ; and in Egypt, the ruins of the Thebaid are an equal cause of amazement at the present hour. In a secondary rank, Tyre, Jerusalem, Baalbeck, and Palmyra, surprize us with their magnificence ; while in Arabia, history speaks only
of

of one public work, which was the Tank³¹ at Mariaba; and when the head of that once failed, there never was sufficient industry or public spirit in the country to restore it.

No adequate cause is assignable for this national distinction, but that spirit of independence which broke the body of the people into parts too minute for a combination of interests, and too diffuse for co-operation. This spirit was never counteracted but for a short time by enthusiasm; and no sooner was that exhausted by evaporation, than they returned again to the state in which they are described by the ancients. They are still a nation of merchants³² and marauders, incapable of subjection, not less from their temper and habits than from the nature of their country; rarely formidable in a body, from their mutual jealousy and distrust; indifferent soldiers, but dangerous partizans.

No other reason is discoverable, why a nation that at one time possessed almost exclusively the commerce of the East, never arrived at a character of dignity and respect; and no other cause can I trace, why Idumæa became so easy a conquest to the Hebrews, Tyrians, Babylonians, and Romans. It is the influence over their government, and the possession of their harbours on the Red Sea by the Romans, which is now to be investigated; and if the command of the commerce obtained by this power continued with little interruption till the time of Justinian, and was not annihilated till the

³¹ This Tank is placed at Mariaba; but Pliny informs us, that Mariaba signifies a capital; still we have in Reiske, Maraba, the same as Saba; so that the Tank will mark Saba. See Reiske in Abulfedam, voc. Jemana. The Tank failed, according to some authors,

in the time of Alexander; others say, after Christ. Univ. Hist. fol. ed. vii. p. 276.

³² Strabo and Diodorus are in concert with Pliny, who says, lib. vi. p. 340. Pars æqua in commerciis et latrociniiis degit: a fact equally true in all ages.

irruption of the Mahomedans, it is a duration of this commerce in one channel, longer than has fallen to the lot of any other people in whose hands it has been placed.

L E U K È K O M È.

OUR inquiry commences with Leukè Komè, or the White Village²¹; and the character of White is attributed to several towns or villages on this coast. Ptolemy has an Argè Komè below Yambo; Haûr is another place, about three hundred miles from the head of the gulph; and a third, Haûr or Havarra is discoverable in the Itinerary, but forty-five miles from the same point. All these terms imply whiteness; but d'Anville assumes the second for the Leukè Komè of the Periplûs. In this he is justly supposed by M. Goffellin to be mistaken; because this second Haûr, at more than three hundred and fifty miles from Petra, could not afford a ready communication with that capital, neither could it be within the limits of Petrèa, but must then have belonged to Hejaz; which, that it did not, we shall have sufficient proof in the expedition of Elius Gallus.

M. Goffellin fixes upon Moilah; to which he is, perhaps, more particularly directed, by finding a name of notoriety in a situation that is probable: but on this coast, as he has very properly observed himself, there is no certainty to be obtained; the ancients have left us few marks of distinction, because they avoided the coast, which was itself dangerous, and more dangerous still from the disposition of its inhabitants; while the few notices which they have

²¹ Almost every place inhabited by Arabians, is rather a village than a town or city.

left, are obliterated by the retreat of the sea, and the increasing advance of the shore. This arises from a cause which operates on the whole eastern side of the gulph; and in the lower part of it there are the remains of places twenty miles inland, which were formerly marts or harbours.

This must be accepted as a reason why so little satisfaction can be given in regard to individual positions. The general character of the coast, and the division of the provinces, will be distinct; but identical locality is by no means to be expected. This will be apparent in the immediate object of our inquiry, for the White Village itself is obscured by difficulties not easy to be surmounted.

	Lat.
The Haûr of d'Anville ³⁴ is in - - -	25° 2' 0"
The Moilah of d'Anville, in - - -	27° 30' 0"
The Moilah of Gosselin, in his Map-of Ptolemy	27° 50' 0"
Arga Komè of Ptolemy, by the	{ Latin text - 22° 40' 0"
	{ Greek text - 22° 30' 0"

But that there is still another Haûara, Avara, or Havarra³⁵, we

³⁴ The Haûr of d'Anville is ascertained by Al Edrisi to be lower than the island Naman, p. 109; a proof that it cannot be the Haûara of the Itinerary.

³⁵ But I am apprehensive that I read 20 twice instead of once; if so, it is only 45 miles from Haila to Hauarra, and 38 from Hauarra to Petra. The latter distance must, in that case, assuredly be erroneous; and the former too, unless the sea of Acaba be as short as it is represented in the ancient maps, instead of running up to the north so far as it does in the maps of d'Anville, Gosselin,

and De la Rochette. Still, whatever be the errors, it is curious to see both these routes detailed at the extremity of the empire, in the reign of Theodosius; and the shorter the distances are, the more incompatible they are with the Haûr of d'Anville. (See d'Anville's Egypt, p. 129. with his opinion of the Itineraries.) There is a similar diminution of distance from Phara, or Ras Mahomet, to Haila, which the Itinerary makes only 16 miles; and both deficiencies, if they are such, must be imputed to the supposed shortness of the sea of Acaba, i. e. the Elanick Gulph.

are certain from the Itinerary; and Stephanus⁶⁶ informs us, that it was founded by Aretas son of O'bodas, and called A'úra (which signifies *white* in Arabick and Syriack), from some vision of a man in *white*. Pliny adds, that Arra⁶⁷ is in the country of the Thimancî, the adjoining tribe to the Nabatêans, and that here is the centre of commerce. Upon these authorities I had wished to have placed this Havarra on the coast, and to have assumed it for the site of the White Village; more especially as the Itinerary of the Peutingerian Tables points to the entrance of the Elanitick Gulph, and has one route of sixty-one miles from Aila to Havarra, and another of thirty-eight⁶⁸, from Havarra through Zadagasta⁶⁹ to Petra.

⁶⁶ See Stephanus Byz. in voce.

⁶⁷ Arra oppidum in quo omnis negotiatio conventit. Plin. vi. c. 28. The Thimancî are the Bythimanees, or Batmizomanees, of Agatharchides, and upon the coast.

⁶⁸ I am not certain that I read the distances right; but they appear thus:

	Miles.
From Clyfma to Medcia -	40
to Phara -	80
	— 120
to Haila -	50
	— 50
to Ad Dianam -	16
to Pôssidium -	21
to Havarra -	24
	— 61
to Zadagasta -	20
to Petra -	18
	— 38
	—
	269

If by Clyfma we are to understand the head of the gulph, or Suez, the opening of the

compasses gives precisely 200 Roman miles from Suez to Ras Mahomed, by d'Anville's map; 180 m. En. by De la Rochette's; 225 by Capt. Cook's Chart. When we find therefore only 120 miles in the Itinerary, we must suppose that a distance is omitted between Arfinoë and Clyfma, for both are noticed; but there is no number between the two, and Clyfma is placed on the eastern side of the gulph, not on the western, as in d'Anville. But if the numbers we have, express the sense of the author, then we must add a third at least; and, by the same proportion, a third from Phara or Ras Mahomed to Haila, making that nearly 67 B. miles; a distance that agrees neither with d'Anville or De la Rochette, for both make it near 110. I have always supposed this distance much too large; and if Irwin's Chart might be depended on, my judgment must be right. Irwin is the only traveller I have met with who has entered the Elanitick Gulph; but though he speaks of the head, he does not quite say that he saw it.

⁶⁹ The Zaanatha of Ptolemy.

But in opposition to this we have the express testimony of Ptolemy⁹⁰, that Avarra is inland, and more northerly than Aila. This reduces me to the necessity of concluding, that this Haûr, or Havarra, cannot be the White Village of the Periplus; so that neither the Haûr of d'Anville, the Argè Komè of Ptolemy, or this Havarra of the Itinerary, will answer our purpose. But there are some circumstances in Agatharchides, which will lead us to a situation where such a port seems to be pointed out, in preference to any other on the coast.

VII. THAMUDÉNI AND CANRAITES.

THIS author, at the entrance of the Elanitick Gulph, has three islands: one, sacred to Isis; and the two others called Sookabúa and Salydó. These islands, after having been lost for twenty centuries, have been restored to geography by M. Irwin. He is the only voyager, as far as I can discover, who has ever entered this bay; and if his chart may be depended upon, he went up it five-and-twenty miles: in consequence of this he saw these islands, and has named them Tirán, Sanafir, and Barkan. I have never seen⁹¹ them in any chart, previous to his, arranged in the same order; but they bear such testimony to the fidelity of Agatharchides, that he deserves credit when he adds, that "they"⁹² cover several harbours

" on

⁹⁰ See Tab. Afizæ, iv. and lib. v. c. 15.

Elana - - 26° 15' 0"

Avara - - 29° 40' 0"

Still there is a confusion; for the Greek text says,

Elana - - 29° 15'

Avara - - 29° 20'

But, after all, Avara is north of Elana.

⁹¹ The names are in Niebuhr, but the position is erroneous. One island is still called Jobua by De la Rochette.

⁹² Τὴν δ' ἱερμίαν χῆρας ἵπποι τρεῖς ἐπέχρονται, Διμίνας πύσσου πλείους' μετὰ δὲ τὰς ἵππους τὰς ἐκρημίνας ἐστὶν ἰδιῶν ἀγγυλῶν λιθάδι καὶ μακροί, ἢ δὲ χῆρας Θάμιλλῶν Ἀράβων' ἢ δὲ πρὸς ταύταις παραπλοῖς ἐστὶν γαβίαι τῶν χιλιῶν πλείους πάντως χαλιπῶ-
τατος.

“ on the Arabian shore” [as the Zaffateen Islands protect the port of Myos Hormus]; and one of these harbours, I conclude, must be the Leukè Komè of the Periplus; for he adds, “ to these islands succeeds the rocky coast of the Thamudeni, where, for more than a thousand stadii, there is no harbour, no road where a vessel can anchor, no bay to afford protection, no scrap of a projecting point, to which the mariner can fly for refuge in a moment of distress.”

However the colouring of this picture may be heightened, the general description is true, as may be seen by a reference to M. Irwin’s Journal, from the 22d of June to the 9th of July; where we have every day islets, breakers, shoals, sands, and funken rocks, with the mention of only one cove where the shore could be approached. The refuge his Arabian boat found, was generally under islets; but a navigator, who did not dare approach the shore, might well paint it in the same colours as Agatharchides has done. Irwin carries Moilah fifty miles more to the north than it appears in other charts⁹³, and within the Elanitick Gulph: if this be true, my conclusion is perfectly in correspondence with that of M. Goffellin; and if, by taking different methods, we both arrive at the same conclusion, it must be a strong confirmation that the point we have both fixed on is right; for a safe anchorage at Moilah, covered by the islands, and the unapproachable nature of the coast below, fix Moilah to a certainty for the Leukè Komè of the ancients.

τατος ἢ γὰρ ἴσιν . . . ἢ λιμὴν ἕωρμος, ἢ σάλας ἢ
 ἀγκύρας, ἢ κάλπος ἐπισκευῆς, ἢ χιλῆς ἐντύπωμα,
 ἀναγκάσια καταφυγῆ, τὸν ναυτιλλόμενον δεχόμενος.
 Agatharch. apud Hudson, p. 59.

Χιλῆς ἐντύπωμα is a dubious expression; for though χιλῆ is the foot of a wall, or rather loose stones thrown into the sea to break the waves and protect the masonry of a pier, ἐντύ-

πωμα does not occur in the Lexicons: it may be the form, the indenture at the commencement of a projection. Unless the author aimed at a metaphor, by taking χιλῆ in its sense of a hoof, and so intended to mean the impression of a hoof; but in this sense the metaphor is not just.

⁹³ P. 143. oct. ed. vol. I.

VIII. BURNT ISLAND, MOOSA, COAST OF YEMEN.

FROM Leukè Komè to the mouth of the Straits, a course of more than a thousand miles, we have only two places mentioned—the Burnt Island, and Moosa: a proof, as it should seem, that this track was little frequented; and yet the author, by speaking in the first person, seems to have performed the voyage himself. The dangers he describes at large, much in the same manner as we have already reported them from Agatharchides; and the tribes, he says, which inhabit this tract, are numerous; some speaking a language perfectly distinct, and others a different dialect of the same. Those on the coast live in huts or cabins, like the Iethyophagi; and those who are inland, are a treacherous⁸⁴ race, living in hordes or villages, and speak two different tongues. If a vessel is driven to this shore, she is plundered; or if shipwrecked, the crew is reduced to slavery. The general name of these tribes is Canraites; and they are treated as enemies, and seized for slaves, by the other regular governments of Arabia. But it is not only the disposition of the natives which makes the navigation dangerous; for the coast itself is without harbours or roads, full of rocks, shoals, and breakers, and dangers of every sort; for which reason, in going down the gulph, we stand off from shore, and keep our course down the middle of the gulph, very desirous⁸⁵ of reaching [the
more

⁸⁴ παροϊγ ἀεθρότατος διαβόου.

Supposed by Bochart to be Caulanites.—Caulan, a province and mountain between Mecca and Sana. Phaleg. p. 143.

⁸⁵ The word is ποροζύνομα. The sentence stands thus: διὰ καὶ ἰσχυρότατον, μίσην πλεοναστέ-

χομεν, καὶ ἕς τῆν Ἀραβικὴν χώραν μᾶλλον ΠΑΡΟΕΥΝΟΜΕΝ, ἄχρι τῆς κατακλιναμένης Νήσου. I had very much doubted of the construction of this passage, when I cited it in the voyage of Nearchus; but I am now persuaded, that by considering Ἀραβικὴν χώραν as the civilized part

more civilized part of] Arabia, which commences about the parallel of Burnt Island, and continues down the whole coast to Moofa. In this tract the inhabitants are under a regular government, leading a pastoral life, and raising vast herds of oxen, camels, and other stock. Moofa is an established mart of great trade, in a bay near the termination of the gulph, at the distance of twelve thousand stadia, or twelve hundred⁵⁶ miles from Berenikè; and the whole [of this part] of Arabia abounds in merchants and mariners, both masters of vessels and common sailors, and is commercial in the highest degree. The commodities of the country are rich and numerous; but besides these, there is a great traffic [in India articles] from Barugaza, or Cambay. Inland from Moofa, at three days distance, lies Savè or Sauè, which is the seat of Cholèbus, the king of the district called Maphartis; and nine days farther inland is Aphar or Saphar, the residence of Charibàel, paramount both of the Sabèans and Homerites. This is the sovereign to whom the Roman emperors address their embassies, and whose friendship they conciliate by presents⁵⁷ of various sorts, and considerable value.

We have here a general division of Arabia corresponding to the modern distinction of Hejaz and Yemen, as nearly as can be expected after an interval of eighteen centuries. The northern part, occupied by Bedoweens, robbers, and marauders, living under tents

part of Arabiâ, that is, Yemen or Sabèa, the whole difficulty is removed; and the usage of Ἀράβων in the same sense twelve lines lower, justifies the interpretation; for, τὸ μὲν ὅλον Ἀράβων ναυλορηκτῶν ἀνδρῶν καὶ ναυτικῶν πλοισιζῶν, does not refer ὅλον to the *whole* of Arabia, but to the *whole* of Sabèa, as it is evident by the context.

⁵⁶ This is very accurate, reckoning the passage across the gulph, first to Leukè Komè, and then down the gulph to Moofa.

⁵⁷ Hudson renders this passage as importing presents made by Charibàel to the Roman emperors; but in a following passage the presents from the Romans are specifically mentioned, without any notice of a return.

in hordes almost without towns, villages, or settled habitation of any sort; while the southern part is in a civilized state, highly cultivated, polished, and commercial, and under a regular form of government, such as Niebuhr found at Sana within these thirty years.

The limit of Hejaz, or Arabia Deserta, is fixed by d'Anville in lat. $17^{\circ} 12' 0''$, which gives it an extent of coast of near seven hundred and fifty miles, while there remain but little more than three hundred within the straits assignable to Yemen, or Arabia Felix. The northern part of the first division is that which answers more particularly to the dangerous coast described by the ancient authors, and explored by Irwin, terminating at Hassan Isle, in lat. 25° ; to which succeeds Yambo, the port of Yathrib or Medina; and Gidda or Judda, the port of Mecca, the Maco-rabba or Great Makka of Ptolemy. This appellation proves that it was a place of consequence in that early age; and history shews that there is hardly a place which deserves the name of city, except Mecca and Medina, in all that space which geographers allot to Arabia Deserta, across the vast peninsula, from the Red Sea to the Persian Gulph and the Euphrates. The numerous tribes which inhabit this desert are the Saraceni of the ancients, so called from Sahara⁹⁹ or Sarra, a desert, and corresponding exactly with the modern term of Bedoweens. In what sense this country is a desert, was unknown to the ancients, and is almost equally unknown to us; but that it is not arid, so as to preclude the produce of the earth, is evident from the swarms which these tribes furnished in the early period of the Mahomedan

⁹⁸ $19^{\circ} 0' 0''$ Niebuhr; $18^{\circ} 0' 0''$ De la Rochette. Bedjah is Campania.

⁹⁹ Bedjah-Campania, Reise in Abissinien,

p. 5. Arabiſſe Baduinae ſolebant nempe nutrices ex al Bedjah (*i. e.* campania) Meccan ire.

conquests, and from the consideration that every Arab is a horseman. Little as will suffice to support an Arab and his horse, both must be supported; if little corn is sowed or consumed, still those who live on the product of their herd must find pasture for their oxen, sheep, camels, and horses; and though many expatriate for this purpose in the season, the majority still remains at home, both winter and summer. Neither can their predatory life supply all their wants; for a whole nation must have a national support. Robbers as they are, they do not rob every one; the caravans still distribute all the merchandize which comes annually to the ports of Yambo and Jidda, through this very country; and in the commerce which the ancients describe, there was a regular intercourse between Sabéa and Petra, from the South, and between the gulph of Persia and Petra, from the East. This trade has fluctuated in different ages, from external causes: it is at this moment, perhaps, at a lower ebb than ever, from the commercial superiority of the Europeans in the Eastern Ocean, and from a diminution in the spirit of pilgrimage. But Mecca and Medina are still to be considered as marts rather than sanctuaries; and the commodities brought by the English from India, and by the Turks from Suez, still centre at Jidda¹⁰⁰, as an emporium of considerable importance.

It is the Turkish trade from Suez which the Romans occupied by being masters of Berenikè, Myos Hormus, Petra, and Leukè Komè. It is the English trade from India, which the Greeks and Romans first found in the hands of the Sabéans, and afterwards assumed to

¹⁰⁰ At the time Bruce was there, nine ships from India were in the harbour, one of which was worth 200,000*l.*; and one Arab offered to purchase the nine cargoes. All these, he

adds, are dispersed over the wildest part of Arabia by men with whom no traveller would trust his life. Bruce, vol. i. 278.

themselves, as soon as they had fleets on the Red Sea that neither feared the Nabathæan pirates at the head of the gulph, or the Sabæan merchants at the straits; and from the time they learned the nature of the monsoon from Hippalus, they made a voyage to India more advantageous, than the purchase of a cargo at Moosa or Okélis.

IX. EXPEDITION OF ELIUS GALLUS.

THE voyage from Suez or Arsinoè was first planned by Neco; it was afterwards meditated by Alexander, and it was executed by the Ptolemies previous to the establishment of Myos Hormus and Berenikè. It was not unknown to the Romans when they reduced Egypt, though then in disuse; but Elius Gallus set out on his expedition from this port, and Strabo imputes his failure to this circumstance as a leading cause.

Strabo laments that this expedition added little to the geographical knowledge of Arabia; and we have reason to complain that Strabo, who lived in habits of intimacy with Gallus, has recorded so little of the information which might have been obtained from that commander. The consequence is, that d'Anville, who follows Pliny, carries the Roman arms to Mariaba, the Mareb of the Arabians; and that M. Gosselin, by his interpretation of Strabo, supposes Mariaba, or Marfyaba, to be the Maco-raba¹⁰¹ of Ptolemy, the Mecca of Mahomet. The distance between these two places is little short of nine degrees; so that the difference between the two estimates is 67½ Roman miles.

¹⁰¹ Mecca is always written Macca by Reiske, in his version of Abulfeda.

If there were any data to determine this dispute, no labour should have deterred me from investigating it to the utmost; but as Pliny says, that the places which occurred in the expedition of Gallus are not found in authors previous to his time, the same may be said of subsequent writers; for there is not one of them, ancient or modern, who will do more than afford matter for conjecture. This is the reason that compels me to give a sketch only of an expedition so intimately connected with the commerce of the ancients in Arabia.

The commission of Gallus from Augustus was to explore Ethiopia, the country of the Troglodytes, and Arabia. The first part was executed by Petronius, his lieutenant, and terminated by the submission of Candacè, queen of Meroë. But Arabia, Gallus reserved for himself; and the country of the Troglodytes he crossed when he landed at Myos Hormus, on his return. This expedition commenced at Cleopátris¹⁹⁸, in the neighbourhood of the modern Suez, where we find him at the head of an army consisting of ten thousand Romans, five hundred Jews, and a thousand Nabatêans from Petra, with a fleet of eighty¹⁹⁹ vessels of war, and an hundred and thirty transports. Syllêus²⁰⁰, the minister of O'bodas king of Petra, was to conduct this force; but his interest was concerned in defeating the expedition, which he effected, and afterwards paid the forfeit for his treachery with his life. The first error into which he led Gallus, was the preparation of a fleet, which consumed¹⁹⁹ much time,

¹⁹⁸ Cleopátris is considered as Arsinoë; but perhaps Arsinoë, Cleopátris, and Suez, have all followed the retreat of the sea at the head of the gulph.

¹⁹⁹ Biremes, triremes and phasel.

²⁰⁰ See supra, p. 246.

¹⁹⁹ We have the account of preparing a Turkish fleet in the same manner, anno 1537; by which we learn, that the country affording no materials for ship-building, the several articles

time, and was of no service; for the army might have proceeded from Cleopátris to Petra, and thence to the head of the Elanitick Gulph, through a friendly country, and in the ordinary track of the caravans¹⁹⁶. But fifteen days were required to extricate the fleet from the sea of Suez, and to reach the road of Leukè Komè; and here, when they arrived, many vessels had been lost, and the troops were so afflicted with a disorder in the mouth, and swelling in the legs, that the remainder of the year was lost, and the expedition delayed till the following spring.

Upon leaving Leukè Komè, Gallus advanced, first, through a desert¹⁹⁷ into the country of A'retas, who was related to O'bodas,

ticles were brought across the desert from Cairo on camels. In this manner a fleet of 76 vessels was constructed, which, from the time it weighed from Suez, was ten days before it reached Tor, and left it on the eleventh. This accounts for the fifteen days employed by Gallus in performing a passage of little more than 240 miles. See Ramuzio, tom. i. p. 274. Viaggio per un Comito Venitiano.

¹⁹⁶ We have the route of the pilgrims in Mel. Thevenot, Pococke, and Shaw, from Cairo to Mecca; and reckoning from Ageroud, which is near Suez, the account in Thevenot stands thus, tom. i. p. 151:

	Hours.
From Ageroud to Navair	6½
Raftagara	10
Kálsat el Nakel	15
Abiar Alofna	
(Aila?)	14
Sath al Acaba	15
Kelsat al Acaba	16
Dahr el Husmar	6½
Sharaffe Beni-gatic	14

	Hours.
Magure Schouaib	
(Jethro)	14
Moilah	15

The rate of a caravan is from 3 to 2½ miles an hour	126	126
	3	2½
	378	252
		63
		315

This route measures, by the compasses, in a right line on De la Rochette's map, nearly 280 miles, which, with the allowance for road-distance of $\frac{1}{3}$, amounts to 320 miles; and this at 15 miles a day, a moderate march for a Roman army, requires 21 days: so that they proceeded faster by sea than they would have done by land; the time lost, therefore, was in the preparation of the fleet.

¹⁹⁷ This is the same desert which Mahomet passed in his march from Medina to Hagjr and Aila, where, Abulfeda says, magnas illi per viam tolerabant molestias ab æstu et siti, p. 52. Ed. Reiske, 1754.

and seems to have been the sovereign of the Thamudites; but Syllêus had the same influence here as in Petrêa; and though the country was not destitute, or the prince unfriendly, thirty days were employed before the army reached the country of the Nomades or Bedowens, called Ararênè¹⁰⁸, and subject to Sabus. This tract has a resemblance to the territory of Medina and Mecca; and the space of fifty days employed in passing it, till they reached the city of the A'grani¹⁰⁹, Négrani, or Anágrani, which was taken by assault, is some confirmation of the conjecture. The king had fled into the desert; but the country was not hostile, nor altogether incapable of supplying the necessaries requisite for the army¹¹⁰.

From hence, after a march of six days, they arrived on the bank of a river, where the natives were collected in a body, and opposed their passage: a battle was the consequence, in which, with the loss of only two Romans, ten thousand Arabians were slain. Strabo describes them equally deficient in spirit, as they were ignorant of the art of war; and yet these very tribes were in a future age, under

¹⁰⁸ Ararênè is probably Sara-renc, as Aphar is Saphar; and Sara is Saharra, *the desert*.

¹⁰⁹ A'grani in the first mention is written Négrani in the MSS.; and on the second, *in Négyraz*: and Casaubon wishes to read *Ayyraia*. See Strabo, pp. 781, 782. All these readings prove the uncertainty of the ground we stand on; and any of them would justify d'Anville in assuming Najeran (a place fully described by Al Edrissi, and well known to Niebuhr), if the other circumstances of the expedition will accord. Najeran is a fortress dependant on Mecca: it lies 12 days south of that capital, and east of the mountains which bound the Tehama. See Al Edrissi, pp. 48, 50, 51. This is perfectly consistent, if Ararênè is the

country of Medina and Mecca; and Najeran must be, by comparing circumstances in Al Edrissi, on the borders of Yemen, nearly on a parallel with Sadum Rah. Consult. p. 48.

¹¹⁰ Ali passed through Najeran, and brought a tribute from it, when he was returning from Yemen, whither he had been sent to preach the Koran by Mahomet; and if Nâgrana be Najeran (as ~~to~~ all appearance it is), it directly contradicts Gosselin's hypothesis, that Elius Gallus terminated his expedition at Mecca. Abulfeda Reiske, p. 53. Abulfeda mentions the conversion of the kings of the Homerites, the people of Arabia Felix; and adds, that Ali's preaching converted the whole tribe of Hamdan in one day.

the influence of Mahomedan enthusiasm, to subdue the world, from the Pillars of Hercules to the Indus.

The loss of this battle produced the surrender of Asca, a city in the neighbourhood; and, without learning what time was spent here, or what distance intervened, the next place we find them at is Athrulla. Athrulla was taken without difficulty, and garrisoned, and a supply of provisions was obtained, which enabled them to proceed to Marfyaba. This city is described as the capital of the Rhaminites, and the seat of Ilafar¹¹, the sovereign of the country. Here terminated the expedition; for, after lying before the place six days, Gallus was compelled, by want of water, to raise the siege, and retreat to Anágrana, where the battle had been fought¹², and which he did not reach till after a distressful march of nine days.

From this time, the preservation of his army was the more immediate object of the commander, than the hope of conquest; he had spent six months in reaching Marfyaba; he was now convinced of the perfidy of Sylléus; he imputed the whole failure to the direction of the march by the advice of that minister; and if the same delay should occur on the retreat, he saw that the destruction of the army was inevitable.

To prevent this, it is evident that the route was changed; and we are led to conjecture, that it was directed from the interior to the

¹¹ By consulting Ptolemy, the country of Asca first mentioned, and Anágrana of *τῆς Νάγγρας* in this place, correspond, either the author or the text are at variance; for the battle was not fought at A'grana, but six days from it, and apparently at Asca, as that city surrendered immediately after the battle.

¹² The copies of Strabo are so incorrect in these names, that though there is evidently an intention of the editor to make A'grana

coast. In this case, the army must have crossed the mountains and descended into the Tehama; and yet in a march of sixty days, we have nothing to guide our inquiries but the mention of four places, without dates, and with one distance only specified: these are, *The Seven Wells*, eleven days from Anágrana; Chaalla, Malotha, and Nera. Nera¹¹³, we are informed, was in the territory of O'bodas, that is, in Petrêa, and in all probability at some distance to the southward of Leukè Komè.

At Nera the army embarked, and was eleven days in crossing the gulph to Myos Hormus. The route from this port to Koptus on the Nile has been already described; and from Koptus, Gallus proceeded to Alexandria with the shattered remains of his forces. Of these, seven only had perished by the sword; but a very great proportion was rendered unserviceable by disease¹¹⁴, famine, and a variety of distresses which they had experienced in the course of the campaign.

Thus ended an expedition, planned without policy and conducted without capacity. If it had succeeded, the Romans could not have established themselves in the country; and by its failure, it retarded

¹¹³ Nera, in the margin of Strabo, is written Hygra, and Negra in Casaubon's translation; and in such a fluctuation of the MSS. or printed copies, we have nothing to determine our doubts: but we may conclude, that the place, whatever is its name, must be considerably below Leukè Komè, as the passage from that port to Myos Hormus was only three days. This, however, was for a single ship, and Gallus had a fleet; but we must suppose he continued his course up the coast to the northward, and came by Ras Mahomed to the Egyptian shore. Much difficulty stands in

the way of calculation; and, after all, it is not quite clear whether Strabo's eleven days are to be reckoned from the time Gallus reached Nera, or from the day he left it: I conclude the latter to be intended. A Negra is mentioned by Cedrenus, p. 364. 500 years later, where a St. Arethas was put to death by Elefbaas, the Abyssinian conqueror of the Homerites. One should not have expected to find a Christian martyr, of the name or family of the Arcthas's of the desert.

¹¹⁴ Dio says, they did not merely retreat, but were driven out.

their full intercourse with India for almost a century. But if it were possible to give the reader satisfaction on the extent of it, no apology would be requisite for the digression. This, from the scantiness of materials, cannot be done; but as my conjectures differ both from d'Anville and M. Gosselin, I shall barely state the grounds on which they are founded, and leave the determination to the judgment of the reader.

The first step towards fixing the termination of the expedition, would be to distinguish Marfyaba from all the cities with which it is confounded.

The Marfyaba of Strabo is in the country of the Rhamanitzæ, and under the government of Ilafarus. It is not the Mareb of Sabêa, where the great Tank¹³⁵ is, for that he calls Meriaba of the Sabêans; and this sufficiently declares against d'Anville's system, which carries Gallus into Sabêa, and on which Gosselin justly observes, that if Gallus had besieged Mareb, he would not have been obliged to raise the siege for want of water, the reason assigned by Strabo.

Ptolemy has likewise a Mâraba (written Bâraba in the text) which he places in the country of the Minêans, and calls it a metropolis; and a Mariama, two degrees to the south-east; but he has no Mariaba either in Sabêa or the country of the Homerites. His Elisâri, the Ilafar of Strabo, are still farther south than the Minêans, and upon the coast.

Pliny has two Mariabas: one marked by the Tank, called Baramalchum¹³⁶, the Royal Sea or Lake; and another, in the country

¹³⁵ Mareb is still the capital of a large province in Yemen called Dsiof, between Najeran and Hadramaut, where the ancient traditions concerning the Tank, the queen of Sheba, &c.

are still current. See Nieb. t. ii. p. 119. Arabic.

¹³⁶ Bahr-u-melk, Bahr-u-malk, Bahr-u-mal-kim; the Lake of the King, or the Kings; the Royal Lake.

of the Calingii; he adds, that Mariaba is a general name of a capital. It is apparently then the Mariaba¹¹⁷ of the Calingii which he informs us, contrary to the assertion of Strabo, that Gallus took, and finished his invasion at Caripeta. But it is still more extraordinary, that the other cities he mentions as taken and destroyed by Gallus, do not, in any one instance, correspond with those of Strabo, except that his Negra is possibly Nera¹¹⁸.

Dio¹¹⁹ terminates the irruption at Athlula, evidently the Athrulla of Strabo: he mentions the army being afflicted with a disease in the head and legs; and adds, that Gallus did not merely retreat, but was driven out by the natives.

The whole of this goes to prove, that Gallus did not reach Mareb Baramalcum; and, in short, the fact is impossible; for *that* Mareb is above eleven¹²⁰ hundred miles from Moilah, and the retreat of Gallus, in sixty days, would require a march of almost twenty miles a day, which, for such a continuance, is not to be performed.

But if the Mareb of d'Anville be too distant, the Mecca of Gofsellin is too near; for the route of the caravan, from Moilah to Mecca, makes it only 731 miles, at 3 miles an hour.

547 — at $2\frac{1}{2}$ miles an hour.

546 — d'Anville's Map.

560 — De la Rochette's Map.

Add for road-distance 80

640 — probable mean distance, from 620 to 640.

¹¹⁷ Supradictam Mariabam. The Mariaba of the Calingii is the last mentioned, and Hardouin supposes that to be meant.

¹¹⁸ May it not be Negrana, for Nagraana?

¹¹⁹ Lib. liii. p. 350. Ed. Steph.

¹²⁰ It is 1085 in a right line, which, with the addition of a seventh, becomes 1240, and increases the difficulty.

If, therefore, Gallus was advancing for six months, he must have marched little more than an hundred miles a month. And let us suppose, with Goffellin, all the fraud of Syllêus, and all the deviations of the march he pleases, this advance is far less than a Roman army can be supposed to make. The country Gallus was desirous of reaching, was the country of gold¹¹¹; frankincense, myrrh, and spices, certainly either Hadramaut or Yemen; and when he was at Marfâba, he was told he was but two days distance from the province he wished to enter. He might be deceived in that, and most probably he was; but the deception could hardly amount to the difference between two days and thirty, and Mecca is little short of thirty days from Hadramaut.

Goffellin supposes Athrulla to be Yathreb or Medina, and Marfâba to be Macoraba or Mecca; but it is not easy to discover the resemblance of these names, or the other five he gives from Pliny. Strabo is surely a better guide, who was in habits of intimacy with Gallus, and who received the names most probably from his report. Pliny says, that Marfâba was taken, and that the expedition terminated at Carîpeta: Strabo asserts, that Marfâba was not taken, and does not notice Carîpeta at all. It is not safe to build on similarity of names; but Nagra, which Goffellin supposes to be Al Nokra¹¹², is certainly more nearly related to Najeran in sound. Najeran is assuredly as ancient as Mahomed's time: it is a conspicuous pro-

¹¹¹ Strabo, 780.

¹¹² Al Nokra is the place where the road from Basra to Medina joins that from Kufa to the same city. A Basra ad Medinam stationes fere viginti, & hæc via coincidit cum extremitate Kufæ prope Maaden al Nokra. Al Edrissi, p. 121. Even as d'Anville has placed

Al Nokra, I conceive it lies far too much to the east to be in the track of Gallus; and, from the expression of Al Edrissi, I conclude it lies farther east than d'Anville has placed it. But even if d'Anville is right, Al Nokra is upwards of 200 miles out of the road that Gallus appears to have taken.

vince still, according to Niebuhr¹³³; and Al Edrissi¹³⁴ places it on the road from Mecca to Yemen. This appears to be the very route by which Gallus was advancing; and Najeran, by the Arabian accounts, was capable of affording the supplies of which the army stood in need. I am myself therefore persuaded, that Gallus entered the country of the Minéans, and that the city he assaulted, whether Mariaba, Marfýaba, or Caripeta, was the capital of that province; for Mariaba implies a capital in general; and if Ilasar is the king of this tribe, whether Calingii, Rhamanítæ, or Elefári, I would comprehend all three under the title of Minéans. At least, to my conception it is clear, that Ptolemy, Pliny, and Strabo, all point to something farther south than Mecca.

Whether this opinion will meet with the approbation of others; is dubious; such as the obscurity and contradiction of my authorities will allow, I give it. If Najeran be a fixed point, and concluded, we have ground to stand on; if it can be disputed, I am ready to embrace any assumption that may be supported upon better proofs. What the Rhamanítæ of Strabo, or Calingii of Pliny, may be, seems impossible to determine. Gosselin concludes, that the Rhamanítæ of Strabo are the Manítæ of Ptolemy: it is the strength of his argument; and in Mercator's Map, the Manítæ are placed on the north of Mecca. But perhaps Mercator is misled, for we have no latitude of the Manítæ; and the text says, below the Manítæ¹³⁵ is the interior Myrrh country, and then the Minéans, a great nation. I have not yet met with any account of myrrh in Hejaz, and therefore, if the Rhamanítæ and Manítæ are the same, I conclude that they are

¹³³ Arabic, ii. 114.

¹³⁴ Pages 48, 49.

¹³⁵ Ἐπὶ τῆς Μανίτης ἢ ἐπὶ τῆς σμυρναϊκής, ἢ τῆς Μυρρῆς μέγας ἕδος.

in Yemen. But the whole of this is conjectural; and, if names avail, I might with equal propriety contend, that Rhaman is Haman, or Hamdan, the tribe converted by Ali, the position of which answers; or assert, that Cari-Peta is Carni-Peta, correspondent to the Carna¹²⁶ or Carana of Strabo, which he says was the capital of the Minæans.

Is it not reasonable to suppose that the army moved in the track of the caravans¹²⁷? and as the line here assumed is direct between Hejaz and Hadramaut, and cuts the province of the Minæans, who were the regular carriers between both, does not this supposition solve more of the difficulties than any other? It is but a supposition at last; still, where our ignorance of the country renders every effort dubious, a rational hypothesis is all that can be expected.

Najeran¹²⁸ itself is in Hejaz, for it is one of the fortresses of Mecca, according to Al Edrissi; and the boundary of this province and Yemen, is fixed at the following station. If, therefore, Gallus

¹²⁶ I have a leaning towards the connection of these two names; but if the two places be the same, the difficulty is not removed; for the same city cannot be taken, and not taken; and the expedition cannot terminate at two different places. The following circumstances, however, may be curious, if not convincing:

The four great nations in Arabia Felix, or Yemen, were the Minæans, the Sabæans, the Katabanantes (who are in the Maphartis of the Periplus), and the people of Hadramaut. As the power of the Sabæans declined, the tribe of Hamyar (the Homerites) prevailed, whose capital was Aghar, Saphar, or Dagar; but the capital of the Minæans was Karnā, or Karana. *Μισαίου . . . πόλις αὐτῶν ἢ μινίτην Κάρνα, ἢ Καρανά.* Strabo, 768. I ask curi-

ously, but without affixing any importance to it, may not the *Kaispeta* of Pliny be Karni-Petra, the fortress of Karnā? If this could be supposed, *Mariaba*, or *the capital*, is identified with Karni-Petra; for both are the principal city of the Minæans.

¹²⁷ Strabo has pointed this out, under the supposition that Gallus might have marched by the caravan-road through *Petræa*. *Ἀποκρίνωμαι, ὅτι ἢ . . . ἢ καμαλιμνογοῦ ποσῶν πλῆθος ἀνδρῶν καὶ καμήλων ἐδίδωσαν ἀσφαλῆς καὶ ἰσπόρους ἐς πύργων καὶ πύργων, ὅπως μὴ διαφύγῃ μὴδὲ στρατιωτῶν.* The camels and men in the caravans find supplies from fortresses to fortresses, in the same manner as an army.

¹²⁸ El Edrissi, p. 49.

was nine days in returning hither after his repulse, we may suppose that he would not march less than fifteen miles a day on such an emergency: this requires that he should have advanced upwards of an hundred miles into Yemen. And if we date from Najeran the sixty days employed in his retreat to Nera, an estimate between twelve and fifteen miles a day would enable him to reach that port in the time assigned. This seems a great exertion for sixty¹⁰⁹ days continuance; but famine impended, and doubtless the Arabs hovered in the rear; add to this, that when the army arrived in Egypt it was completely ruined, as Strabo informs us, by famine, hardship, sickness, and the difficulties of the march.

Nera, as it is the termination of the expedition, I should have been glad to fix, but no representative offers; it must be within the limits of Petræa, and it should be placed as far below Leukè Komè as the province will admit: it may perhaps be discovered by some future Niebuhr; or an enlarged knowledge of the language, and the country, may shew that we are all pilots at sea, without instruments, charts, or compass.

We are now to return to the coast, on which, as has been already noticed, the Periplus mentions only the Canraites, Burnt Island, Moosa, and Okelis. The Canraites are the wild tribes on the broken shore of the Hejaz, terminating about Hassan Isle, in lat. 25°. And the passage from Leukè Komè to the Burnt Island was conducted with a view of avoiding the coast throughout. How this could be effected during a run of from ten to twelve degrees, or more, is not easily accounted for; but one of these distances it must

¹⁰⁹ But it agrees with a similar route from Thenna to Gaza, mentioned by Pliny, which required 65 days. Lib. xii. 32. Har-
doin.

be, according as we assume Gebel Tar, or Gebel Zekir, for Katakakáumenè, or the Burnt Island; and as both preserve at present the signs of volcanoes in decay; one of them it must be, as may suit best with other circumstances mentioned. The extreme distance is from Moilah, in lat. $27^{\circ} 56' 130$ to Gebel Zekir ¹³¹, in $13^{\circ} 50'$; the smallest, from Haffan Isle, in 25° , ¹³² to Gebel Tar, in $15^{\circ} 10'$. If Mokha is assumed for the representative of Moosa, and Moosa be the only object of the ancients, Gebel Zekir must be preferred; or if we suppose that the ancients wished to approach the coast, as soon as they found the natives more civilized, we should rather be directed to Gebel Tar ¹³³: for in that latitude, and even to the north of it, we are to fix the Sabéans generally, in the same manner as Niebuhr extends the dominion or influence of the modern Sana. Sana in fact, under the government of its Imam ¹³⁴, as it comprehends nearly the same territory as the ancient Sabéa, so does it partake of the manners and habits attributed to that nation, where commercial intercourse had softened the Arabian character, and in-

¹³⁰ Making $14^{\circ} 6'$.

¹³¹ Notwithstanding the disagreement of M. d'Anville and M. Gosselin, no one can search this question thoroughly without reference to the dissertation of the former on the gulph of Arabia. I have collected materials from both; from P. Sicard, Irwin, Bruce, and De la Rochette's beautiful chart. If I prefer the latitudes of the last to all others, it is because they are founded more especially on observations made by English navigators, and the officers on board the sloops, packets, and trading vessels in that sea, are, for the most part, scientific men, and better qualified to determine nautical questions than any navigators who have preceded them.

¹³² Making $9^{\circ} 50'$.

¹³³ Jibbel Tier is the point from which all ships going to Jidda take their departure after sailing from Mocha. Bruce, i. p. 341. This, though the course is the direct contrary to that of the Periplus, still marks it as a point of departure and destination.

¹³⁴ This is evident, from Barteman in Ramusio, the French Voyages in 1723, by La Rocque, and Niebuhr. The government of the Imam is much more gentle than any Moorish government in Africa or Arabia; the people, too, are of gentle manners, the men, from early age, being accustomed to trade. Bruce, i. 307.

roduced that security of life and property, without which commerce itself cannot exist.

Mooza, according to the Periplûs, was the regular mart¹³⁵ of the country: it was not a harbour, but a road with a sandy bottom, which afforded good hold for the anchors¹³⁶, and where the ships lay in great security: it was inhabited wholly by Arabians; and was frequented on account of the Indian trade with Barugaza, as much as for its native produce.

The intercourse with the Sabéans had from the first been established, either here or at some mart in its vicinity; but the Sabéans were now no longer the prevailing tribe; the Homerites, who came from Mareb, were become the superior power, and Charibâel the sovereign of both nations. He had fixed the seat of his government at Apher, supposed by Gosselin to be the same as Dagar or Dagar; and Dagar is noticed by Niebuhr as a place near Mount Sumara, now in ruins. The distance, however, does not answer; for Apher is placed by the Periplûs thirteen days inland from Savè, and Savè three days from Moosa. But if Savè is the same as Taas, or Mount Sabber, the distance from Sabber to Dagar is not much more than from Moosa to Sabber; and thirteen days from Sabber inland would carry us much nearer to Sana, the modern capital of the Imam, and the metropolis of Yemen.

It is possible, that in a country subject to perpetual revolutions, provinces may have obtained different names from the tribes that occupied different situations: this seems apparent in the district of Cataba, which is now inland sixty miles from the coast, notwith-

¹³⁵ ἡμετέριον λιμὲν, the port established by the native government.

¹³⁶ Bruce mentions the same circumstance

of the road of Mokha. The cables, he says, do not rub, because the bottom is sand, while it is coral in almost every other part.

standing that Strabo places the Catabanians immediately at the straits. It may be, therefore, presumption to say, that Savè is Sabber¹³⁷, or Aphar, Dofar; notwithstanding that the territory of Maphartis¹³⁸ at Savè, or the capital of the Homerites thirteen days inland, may afford us general information sufficiently correct. Cholèbus, the sovereign of Maphartis, whose residence is at Savè, is styled a tyrant by the Periplus, that is, a prince whose legitimate title was not acknowledged; but Charibæal is the genuine¹³⁹ sovereign of the Homerites and Sabæans. The power of Cholèbus extended over the south-west angle of Yemen, both within and without the straits, occupying the same tract as the Catabanians of Strabo in a former age. And Cholèbus had a joint power¹⁴⁰ with the subjects of Charibæal at Moofa, over the settlement at Rhapta, on the coast of Africa.

The mart of Yemen, at the present day, is at Mokha, where coffee is the grand article of exportation, on which the Imam of Sana¹⁴¹ receives a duty of twenty-five per cent. equivalent to the custom exacted by the Romans at Leukè Komè seventeen hundred years ago. Twenty miles inland from Mocha, Niebuhr discovered a Moofa still existing, which he with great probability supposes to be the ancient mart, now carried inland to this distance by the accretion of the coast. And if the accretion is allowed, certainly

¹³⁷ Niebuhr has a conjecture also relating to Sabba and Zebid, tom. ii. p. 55.

¹³⁸ Periplus, p. 13.

¹³⁹ Ἰσθμιοῦ βασιλεῦς. Perip. p. 13.

¹⁴⁰ So I interpret a passage (p. 10. of the Periplus) ἡμῶν δὲ ἀπὸ τῆν χερσῶν κατὰ τὸν Ἰσθμὸν ἀρχαίον ὑποσπίττασαν τῆ βασιλείᾳ τῆς πρώτης γυναικὸς Ἀραβίας, ἢ Μοφαρτίου τυράννου. Παρὰ δὲ τῆ βασιλείᾳ ὑπέφρατο αὐτὸν ἔχουσι ἢ ἀπὸ Μόου. I understand by this, that Τύμωνος means Cholèbus, and βασιλείᾳ Charibæal; and that the

merchants of Moofa, who were subjects to Charibæal, received a tribute from Rhapta, while Cholèbus had the civil administration of the settlement. Μοφαρτίου τυράννου, is the Tyrant of Maphartis. Mophartis and Maphartis differ no more than Dofar and Dofar, in the pronunciation of which Niebuhr says he could perceive no difference.

¹⁴¹ Niebuhr, who cites Pliny, lib. xii. c. 35. for another instance: Regi Gebanitorum quartas myrrhæ partes pendunt.

no situation can be assumed more correspondent to the ancient authorities.

At Moosa, the IMPORTS specified are these :

Πορφύρα ¹⁴²	διάφορος καὶ χυδαία,	Purple Cloth, fine and ordinary.
Ἰματισμὸς Ἀραβικὸς	χειριδωτὸς	Cloaths made up in the Arabian
ὁ τε ἀπλῆς καὶ κοινὸς καὶ	σκοτελάτος,	fashion, with sleeves, plain and
		common, and (<i>scutulatus</i>) mixed
		or dappled.
Κρόκος,	- - -	Saffron.
Κύπερος,	- - -	Cyperus. Aromatic Rush.
Ὁθόνιον,	- - -	Mullins.
Ἀβόλλαι,	- - -	Cloaks.
Λάδικες ἢ πολλὰ ἀπλοῖ τε καὶ	ἐντόπιοι,	Quilts, a small assortment; some
		plain, and others adapted to the
		fashion of the country.
Ζῶναι σκιαταί,	- - -	Sashes, embroidered, or of different
		shades.
Μύρον,	- - -	Perfumes.
Χρῆμα ἰκανόν,	- - -	Specie for the market, or in con-
		siderable quantity.
Οἶνος τε καὶ σῖτος ἢ πολὺς	-	Wine and Corn, not much. The
		country produces some corn, and
		a good deal of wine.

EXPORTS :

Σμύρνα ἐκλεκτή,	- - -	Myrrh, of the best quality.
Στακτὴ ἀχειριμαία, ¹⁴³	- - -	Stactè, or Gum.
Λύγδος,	- - -	White Stones. Alabaster.

¹⁴² The modern articles of import and ex-
port may be seen in Niebuhr, tom. ii. ¹⁴³ A doubtful reading; but probably con-
taining *Μινία*, i. e. from the country of the
Minzi.

Added to these were a variety of the articles enumerated at Adûli¹⁴⁴, which are brought over from Africa and sold here. But there were likewise several others imported as presents both to Charibâel¹⁴⁵ and Cholêbus; such as horses, mules, gold plate, and silver embossed, robes of great value, and brass ware of various kinds. Of these it may be presumed that Charibâel had the largest share; for to him embassies¹⁴⁶ were frequently addressed, and he was considered as the friend of the Roman emperors.

The importance of this commerce, as it appears in the Periplus, is manifestly far inferior to the representation of it in Agatharchides; and the trade of the Sabæans declining, after the fleets from Egypt found their way to India direct, was probably not only the cause of their impoverishment, but of their subjugation also by the Homerites. Still it is evident that the manners of the people in this quarter of Arabia were civilized; that the government was consistent, and that the merchant was protected. This character, as we learn from Niebuhr, Yemen still maintains, in preference to the Hejâs, and the whole interior of the peninsula. The same security is marked as strongly by the Periplus in Hadramaut; and the whole coast on the ocean being commercial, the interests of commerce have subdued the natural ferocity of the inhabitants.

It is a circumstance foreign to the object of the present work, but still curious to remark, that in the age previous to Mahomet, Yemen

¹⁴⁴ Coffee and frankincense are the chief of the native exports at present, with myrrh, ivory, and Abyssinian gold from Massua, answering to the ancient Adûli.

¹⁴⁵ Τῷ τῆ βασιλεῖ καὶ τῷ τυράννῳ.

¹⁴⁶ Συγκρίσει προσέειπαι καὶ δῶροις φίλος τῶν ἀντοκράτορων, may be rendered as expressing, that by frequent embassies and presents he had obtained

the title of *Friend of the Emperors*, an honour formerly conferred upon sovereigns in alliance with Rome, by a vote of the senate. Mafinissa, Eumencus, and Ariovistus, were styled *Amici Populi Romani*. But I have preferred the rendering in the text, because the presents from Rome are specified.

was in the possession of the Abyssinians, whose power terminated with his birth; and that in the short period¹⁴⁷ which intervened between his assuming the prophetic office and the Caliphate of Abubekre and Omár, all this part of Arabia was, almost without an effort, subjected¹⁴⁸ to their power. In the sixteenth century the Turks were masters of the coast, and some places inland, but were driven out by the founder of the present dynasty, Khasssem el Ebir, whose posterity assumed the title of Imam, and fixed their residence at Sana, the present capital of Yemen, which cannot be very distant from the ancient metropolis of Sabéa.

On this coast, the first fleets that sailed from Egypt met the commerce from India. Agatharchides seems to say, that the ships from Persia, Carmania, and the Indus, came no farther than the coast beyond the straits; and that the fleets from Egypt received their lading without passing them. Now the fleet from Carmania and the Indus could not reach Arabia without experiencing the effects of the monsoon, as Nearchus had done; and the knowledge of this once obtained, could not be lost. We cannot go farther back, historically, than the journal of Nearchus; but in that we find manifest traces of Arabian navigators on the coast of Mekran, previous to his expedition. And whether the Arabians sailed from Oman or Sabéa, it is still a proof that the monsoon must have been known to them before the time of Alexander; and a high probability that they had reached the coast of Malabar, or that vessels from that coast had reached Arabia, from the earliest ages.

¹⁴⁷ Niebuhr, tom. ii. p. 10.

¹⁴⁸ Yemen seems to have been converted before Mahomet's death, if we credit the account of Ali's mission and success. But the

accession of the strongest and richest provinces of the peninsula, of the more civilized to the more barbarous, is one of the obscurest facts in the early history of the Mahomedan power.

The distance from Moosa to Okélis is short of forty⁴⁹ miles. Okélis has a bay immediately within the straits; and at this station the fleets which sailed from Egypt in July, rendezvoused⁵⁰ till they took their departure the latter part of August, when the monsoon was still favourable to conduct them to Muziris, on the coast of India. For Okélis we have Okíla⁵¹ in other ancient authors, and Ghella is the name it bears at present. D'Anville has marked it sufficiently in his Ancient Geography; and in Capt. Cook's⁵² chart, which is upon a large scale, the entrance of this bay is two miles⁵³ wide, and its depth little short of three. Added to this, if it is considered that the projection of the Bab-el-Mandeb point is a complete protection⁵⁴ against the contrary monsoon, we find here all the conveniences⁵⁵ that were requisite for a fleet constructed like those of the ancients.

⁴⁹ 300 stadia, Peripl. equal to 37½ miles, or, at 10 stadia to the mile, 30 miles.

⁵⁰ See supra, pp. 37. & 75.

⁵¹ *Ακίλα*, text; *Οκίλα*, marg. Strabo. P. 769. he calls the promontory by this name.

⁵² It has been already noticed, that the Capt. Cook here mentioned commanded a sloop in the India Company's service, about the year 1774. His scale is very large, and consequently I have been enabled to view this bay more distinctly than in d'Anville's map, or De la Rochette's chart; and had I been possessed of Capt. Cook's chart when I described the Bay Avalites (p. 115.), I should not have been at a loss to assign its form and limits: it appears there in perfect conformity with the Periplus. Such is the advantage of a large scale, and such is the correspondence of mo-

dern intelligence with ancient authorities, when we can obtain it in detail.

⁵³ De la Rochette marks this bay, and adds, that it is still navigable by boats; a sufficient proof that it was practicable for an Egyptian fleet seventeen centuries ago.

⁵⁴ Between Cape St. Antony and Babel Mandeb the land is low along shore, forming a deep bay, which makes the Cape (Babel Mandeb) appear detached. Oriental Navigator, p. 152.

⁵⁵ Having passed the strait, it is necessary to anchor: you must shut up the straits, and anchor a little to the northward of Cape Babel-Mandeb, where the water is *always smooth*. Oriental Navigator, p. 152.—*N. B.* This is at the entrance of the Bay of Okélis.

X. STRAITS OF BAB-EL-MANDEB, ANCIENT NAVIGATION
OF SESOSTRIS.

THE passage of the straits, and entrance into the ocean, had been considered possibly as great an achievement by the natives, on both sides of the Gulph of Arabia, as the voyage of Hercules through the Straits of Gades to the Garden of the Hesperides, by the Greeks. Fabulous accounts consequently attached to both; and the passing of Bab-el-Mandeb was as naturally attributed to Sesostris, as the voyage through the Straits of Gibraltar to Hercules. Diodorus says, that Sesostris¹⁵⁶ sent a fleet of four hundred ships into the Erythræan Sea, and subdued the islands, and all the maritime countries as far as India. Heródotus is much more moderate; and mentions only, that Sesostris commenced his expedition from the Gulph of Arabia, and subdued the nations bordering on the Erythræan Sea, till he met with shoals¹⁵⁷, which opposed the farther progress of his fleet.

But as we are now arrived at the straits, I shall introduce a table comprizing the most material authorities of the ancients, compared with each other, and with the different conclusions of the moderns. A final decision on the points disputed, or actual precision in the present attempt, are not to be expected; but a probable adjustment of near twenty names to their respective positions, will afford the reader a general view, which will enable him to form a judgment for himself.

¹⁵⁶ Diod. lib. i. p. 64. ed. Wessal.

¹⁵⁷ Herod. lib. ii. p. 149. ed. Wessal.

TABLE of PTOLEMY'S Catalogue for the Eastern Side of the Gulph of Arabia, compared with other Geographers, ancient and modern.

The first Latitude of Ptolemy is according to the Latin Text; the second, according to the Greek.

* Denotes Places supposed to be discontinued. R. Latitudes from De la Roche.

PTOLEMY.	AGATHARCHIDES.	DIODORUS.	STRABO.	D'ANVILLE.	GOSSELIN.	PERIPLUS.
I. Klafna Garifoa 28° 30' 28° 10'		Ichthyophagi, lib. 3. c. 40. p. 208. in whose country the sea retreated. Trugindytes.		Clyfna 29° 27' P'hahabiroth. Suez.		* Clyfna 29° 40' R.
II' Arsinoë 29° 10' 29° 20'		Palibus. Uzdes this same Diodorus comprehends the sea of Suez.		Arsinoë 29° 46' Cleopatria. Suez.	Clyfna Suez. Culzum.	* Suez 29° 58' R.
III.	Phoenicôn.	Phoenicôn.	Phoenicôn.	Elm of Uzed. xv. 27. cl Tor. : 8° 10'	Elm. Tor. Raithum.	* Tor 28° 11' R.
IV.	Néffa is not an Island in Agatharchides	Island of Phoez, described with the properties of Néffa.	Island of Phoez	El Cab.	Shedwan.	* Shedwan Island 27° 24' R.
V. Phazo - 28° 30' 28° 10'	Promontory.	Promontory.	Promontory.	Ras Mahomed.	Ras Mahomed	* Ras Mahomed 27° 47' 5" R.
VI' Elasa - 29° 9' 28° 15' City - 26° 15' 20° 15'	Lainitick Gulph.	Lainitick Gulph.	Elastick Gulph.	Aïla Elash. Haha. 29° 30'	Aïla Acaba II.	* Elash 29° 15' 5" R.
VII.				Acaba Exion Geber.	Acaba	* Acaba 29° 10' R.
VIII. Onné 26° 40' 28° 30'						
IX. Modiana 27° 45' 27° 45'	Basmédomicôn.	Bauzomene.	Hantery.	Magar Schuan. Jethu the Midianite	Magar Schouah.	* Madianue Modian.
X. Hippos, Monot. - 27° 20' Town 26° 40' 26° 10'					Bull's Horns. Irwin. But S. of Moilah.	Dull's Horns. Irwin. p. 143. vol. 1. oct.
XI. Phenicôn 26° 30' 26° 20'				Cabot cl Moilah.	Mo'lah. Leuké Komé.	* Leuké Komé. White Village. 27° 50' R.
XII.	Three Islands: 1. Sacred to Isis. 2. Sookrbna. 3. Salyis.	Three Islands. One sacred to Isis.	Three Islands.			* Three Islands. Irwin 28° 4' R. 1. Tiras. 2. Borkan. 3. Saufar.
XIII. Rhaunath Village 25° 40' 25° 40'	Dangerous coast. ends at Haffan, lat 25° R.	Dangerous coast. Echinades.	Dangerous coast. 1000 fathes.	Roumé.	* Dangerous coast.	* Dangerous coast. Karaites.
XIV.				Havr. White Village, 25° 0' Anville		Havr. same lat. as Haffan lat 25° R.
XV. Cherfoncé Promontory 25° 20' 25° 20'	Coast with water.	Cherfoncas.	Cherfoncus.	Ras Edom 24° 5'	Ras Uned 25° 40' possibly Ras Mahur 24° 32' R.	Ras Rejhab? lat. 24° 13' R. under which, Jeraboop harbor of Irwin
XVI. Iambé Village 25° 20' 25° 30'	Coast with water.	Charmothas.	Charmothas.	Yambo 25° 50' 24° 4' R.	Yambé Island. Yambo on the coast	* Al Gharfah? 24° or Yambé. R.

XVII. Copar vunge 23 15 23° 15'						Dome. Capeln. Kilbogh	
XVIII. Arga Village 22° 40' 22° 20'						Gadirum 22° 50'	
XIX. Zaram Capital 22° 0' 22° 0'							Thafu? 23° 30' R.
XX. Kastos Village 21° 30' 21° 30'						Giddah.	
XXI. Thabr City - 21° 0' 21° 0'	Deplet.	Dohr	Dahar, from 21° 7'. Dahar, Gold.	Province of Mekka. Macu-aha of Prof 22° 0'		Mekham.	* Mekka 21° 32' R. Province of Mekka. Mecca, lat. 21° 40'
XXII. Batin River 20° 40' 20° 20'						Bardiboi	Sockia. Iblar Obhar 21° 30' R.
XXIII						Giddah 21° 34' Part of Mekka.	* Giddah. Part of Macu-aha.
XXIV. Hadco Capital 20 15' 20° 20'						Ras Bah. Avad 21 25'	Servain. Giddah Head 21° 26' R.
XXV. Ambe City - 19 10' 19° 20'							Gedan? Zidka?
XXVI. Kalfates	Alkai Kadkubini.	Galandis. Adkai	Gold Coast.	Ghesan 16 48' R.		Reni Halli.	Gedan, or Zidka, 20 44' R.
XXVII. Mimala Village 18° 10' 18° 10'							R. Hah? 18° 0' Limit of Hajar and Yezan 18° 37' R.
XXVIII. Adedi Village 17° 10' 17° 10'							Callings, terminate pebbles at Ras Ghafan.
XXIX. Elifari on the coast. Mitsa island.							Elifari commence from about Ras Ghesan, lat. 16° 30' to Mo an.
XXX. Pami City - 16 30' 16° 10'							
XXXI. Pudri City 16 30' 16° 10'							
XXXII. .Eli Village 15° 30' 15° 20'						Ras Hah, lat. 19° 0'	Luhain 15° 30' bay below Lohcha? Head Gebel Dan 15° 10' 15° 40' R.
XXXIII. Napagus Village 15° 0' 15° 0'							Head of Gebel Zekir Adedi in front, but not in position.
XXXIV. Sarcia City 14° 30' 14° 30'							at Suraga? Head Gebel Zekir 15° 50' 14° 0' R.
XXXV. Moola Binc 14° 0' 14° 0'	Sabta.	Sabta.	Sabta.	Mooka.	Muza, from Nichebe 6 leagues inland		* Muza 13° 0' Mokha 14° 18' R.
XXXVI. Souppi Port 13 0' 13° 0'							
XXXVII. Plead Okale 12° 30' 12° 30'							
XXXVIII. Okale - 12° 0' 12° 0'						Ghella.	Ghella. * Ghella Bay 12° 48' R.
XXXIX. Palmdromes Point 11° 40' 11° 20'						Bab-el-Mandeb.	Bab-el-Mandeb 12° 39' 20' Bruce. * The Bab. Point 10° 12' 44' R.

If the shoals of Heródotus have any foundation in fact, they are connected with the Bay Avalites¹⁵⁵, on the African shore, immediately beyond the straits, where mention is made both by Strabo and the Periplus, that the vessels employed in later ages put their lading into boats in order to trade with the natives; but this is hardly intended by Heródotus, though his description has confined him within narrower limits than those of Diodorus.

This, however, we obtain at least from the account before us, that in the age of Heródotus it was a prevailing opinion, that the passage had been made in the most remote ages; and if the Egyptians ever were navigators, there can be no objection to admit them into a participation of the commerce with Arabia, or extending that commerce as far as the Arabians did towards the east. Few other historical documents, however, of the fact appear, farther than may be collected from the circumstances here recorded, and these are both few and deficient.

To what extent the passage of the straits, and progressively, the voyage to India, were accomplished, has been already sufficiently shewn; but that it was always considered as a most extraordinary attempt by all those who had not personally made it, we want no other testimony than that of Arrian, the historian of Alexander. He asserts, that no one had gone round the whole coast, from the Arabian into the Persian¹⁵⁶ Gulph, though perhaps some few had passed from one to the other by striking out into the open sea¹⁶⁰.

¹⁵⁵ Perhaps the Salsus of Cosmas, but dubious; for his Salsus seems to be rather on the coast of Adal, or Barbaria. See Melch. Thevenot, p. 7. Cosmas.

for the western coast of the Gulph of Persia has been little visited. Capt. Hamilton's is the best account I have seen.

¹⁵⁹ This is in some measure true at this day;

¹⁶⁰ Lib. viii. p. 358. ed. Gronov. See the note of Gronovius on this passage, p. 356.

Now Arrian lived in the reign of Adrian; and Hippalus had laid open the track to India, at least fourscore years before Arrian wrote: so little was known in the northern part of the empire of what was going on in the south.

Okêlis was not a mart of commerce, but a bay with good anchorage, and well supplied with water: it was subject to Cholêbus¹⁶¹. The neighbouring headland of Bab-el-Mandeb, which forms the entrance of the straits, is placed in lat. 12° 39' 20" by Bruce, and the straits themselves are said to be only sixty stadia, or seven miles and a half wide, or six miles; if we reckon ten stadia to the mile. This is very near the truth, if we measure from Bab-el-Mandeb to Perim, which the Periplus calls the Island of Diodôrus; while the whole breadth, from the Arabian to the African side, is nearly five-and-twenty¹⁶². Perim, or Mehun, was taken possession of by the British, when the French were in Egypt, and begun to be fortified; but it has no water. It is not the only island in the straits; for there is another called Pilot's Island, close to the Arabian shore; and on the African side eight more, bearing the name of Agesteen.

The wind in this passage is described as violent, from its confinement between the high lands on both sides; and the opening of the straits gradually towards Fartaque and Gardesfan, is strongly¹⁶³ marked in the Periplus.

The first place to which we are directed beyond the straits, is a village called Arabia Felix: its distance is estimated at an hundred and twenty miles from Okêlis; and it was formerly a city of im-

¹⁶¹ Καίμη τῆς αἰρῆς, τυραννίδος; of the Usurper's Country.

¹⁶² Bruce conjectures six leagues. Cook's Chart makes it near 25 miles. Bruce, i. 315.

¹⁶³ Ἀνομοίως πάλιν τῆ; θαλάσσης; ἢ ἀνεπίδωξι καὶ κατὰ ΜΙΚΡΟΝ ἢ; σίλικτος ἀνομοίως; opening by degrees from the straits to the two capes.

portance before¹⁵⁶ the fleets passed from India to Egypt, or from Egypt to the countries towards the East¹⁵⁵. Previous to that time, the fleets from Egypt and the East met in this harbour, which was the centre of the commerce, as Alexandria was afterwards for all that passed through Egypt into the Mediterranean. This harbour was more commodious than Okêlis, and afforded better anchorage, as well as better convenience for watering, than Okêlis. The town stands at the entrance of the bay, and the retiring of the land inwards affords protection to the shipping. Reduced as it was in the author's age, by the different channel into which the commerce had been directed, the village was subject to Charibâel, and had within a few years been taken and destroyed by the Romans.

XI. A D E N.

EVERY circumstance in this minute description directs us to Aden : the distance, the harbour, and the name¹⁵⁶, all correspond ; and the peculiarity of its being under Charibâel, while Okêlis was possessed by Cholêbus, marks the extent of the Homerite dominions, surrounding Maphartis in the angle of the peninsula. The native sheiks, or heads of tribes, at the present day, are perfect representatives of Cholêbus. When Niebuhr was in Arabia, the sheik of

¹⁵⁶ 'Ea; τὰ; ἑὸν τόπος.

¹⁵⁵ In the middle ages, the India trade had reverted into its original course : Ex ipsa solvuntur navigia Sindæ, Indiæ, et Sinarum, et ad ipsam deferuntur vasa Sinica. Al Edrissi, p. 25.

The Arabs distinguish between Cheen and

Ma-Cheen: the first is Cochin China; and the other, China. The porcelain mentioned seems to imply, that *Sinarum* used here means the real Chinese, and that they traded so far west in that age. Sindæ and Indiæ express Scindi and Hindostan.

¹⁵⁶ Aden signifies delicie. Hucl.

Aden was no longer subject to the Imam of Sana, but had asserted his independence, and possessed a small territory in the neighbourhood of the city.

The capture also and destruction of this village by the Romans, a short time previous to the author's age, would be a natural consequence of the progress and extension of the Roman commerce from the Red Sea to India; and, as Claudius collected a tribute from the maritime towns of Arabia, it is natural to suppose that he was the Cesar mentioned in the *Periplus*, who ordered this place to be destroyed, for the purpose of suppressing every power that might interfere with the Roman commerce, or divert a share of it into its ancient channel. It is true this must have been an act of oppression upon Charibael, who was the ally and friend of the Roman emperors; but far greater sacrifices of their justice to their ambition occur in the history of those sovereigns of the world. Was it not the same policy which induced Soliman, emperor of the Turks, when he sent Soliman Pacha from the Red Sea to suppress the rising power of the Portuguese in India; when, under pretence of delivering the Mahomedan Powers from this new and unexpected intrusion of the Christians, he employed the forces which had been collected on the occasion in seizing on the maritime towns of Arabia? It was then that Soliman Pacha obtained possession of Aden by treachery, and hanged the sheik at the yard-arm of his ship¹⁰⁷.

I conjecture that it was Aden which Agatharchides describes without a name, when he places a city on his White Sea without

¹⁰⁷ *Viaggio di un comito Venetiano*. Ramusio, tom. i. f. 276. anno 1538.

This Venetian captain was put in requisition at Alexandria, and sent to Suez to serve under

Soliman Pacha. He was present at the execution of the sheik, and describes the Indian trade at Aden as then consisting of only three or four spice ships in a year.

the straits; from whence, he says, the Sabæans sent out colonies or factories into India, and where the fleets from Persia, Carmania, and the Indus, arrived. He specifies large ships employed for this purpose; and though his mention of islands may suggest an idea of Socotra, Curia Muria, and the coast of Oman, it seems far more probable that his intelligence was imperfect, and that these fleets, which he describes, must have been found in the same port which the Periplûs assigns them, as long as the monopoly continued in the hands of the Sabæans.

The testimony of Agatharchides is, in one point, highly important; for it is the first historical evidence to prove the establishment of Arabian colonists, or rather resident factors and merchants, in the ports of India: it is a fact in harmony with all that we collect in later periods, from Pliny, and the Periplûs, and Cosmas; and we may from analogy conclude, that it was equally true in ages antecedent to Agatharchides; that is, as early as we can suppose the Arabians to have reached India. The settlement of their own agents in the country was most convenient and profitable, while the manners and religion of India created no obstacle to the system.

In the middle ages, when the power of the Romans was extinguished, and the Mahomedans were possessed of Egypt, Aden resumed its rank as the centre of the trade between India and the Red Sea. The ships which came from the East were large, like those which Agatharchides describes: they did not pass the straits, but landed their cargoes at this port, where the trunkies¹⁶³ or gernes of the Arabs, which brought the produce of Europe, Syria, and Egypt,

¹⁶³ M. Polo uses the expression *Zerme*. The Arabs of Renaudot mention the same circumstance, that the ships from the East did not enter the Red Sea.

received the precious commodities of the East, and conveyed them either to Assab, Kofir, or Jidda; when all that passed into Europe, still came to Alexandria, and enriched the Soldan's dominions by the duties levied, and the profits of the transit. In this situation, Marco Polo found Aden¹⁶⁹ in the thirteenth century; and the account he gives of the wealth, power, and influence of Aden, is almost as magnificent as that which Agatharchides attributed to the Sabæans in the time of the Ptolemies, when the trade was carried on in the same manner.

So far as the identity of Aden and Arabia Felix, there is neither difficulty nor disagreement; but upon the remainder of this extensive coast, from Aden to the Gulph of Persia, there will be few positions in the following detail which will accord with d'Anville's arrangement, or with that of other commentators who have bestowed their attention upon the Periplûs.

XII. ARRANGEMENT OF THE COAST OF ARABIA ON THE OCEAN.

THE circumstance upon which the whole depends, is the adjustment of Syágros. In common with others, I had supposed its representative to be the modern Ras-el-had; and there is so much to induce this opinion, that I abandoned it with great reluctance, and shall perhaps find great difficulty in persuading others that it is erroneous.

The Periplûs notices Syágros as pointing to the East, and as the greatest promontory in the world. Omana likewise is men-

¹⁶⁹ M. Polo, lib. iii. c. 39. the soldan of Aden sent 30,000 horse and 40,000 camels, to assist at the siege of Acre, in the year 1200. Such a soldan as this might be the Imam of Sana.

tioned with it, answering to the present Oman; and Mofcha, seemingly identified with Maskat, the principal port of that province. Under the influence of these resemblances and probabilities, if I had joined in the common suffrage, and called Syágros Ras-el-had in my former publications, wherever it occurred, it is conviction alone, and the abandonment of system for truth, which compels me to recall the error, and acknowledge that Syágros is not Ras-el-had, but Fartaque.

This is a concession not made for the purpose of particular accommodation, but grounded on a general analysis of all the positions on the coast, on a combination of all the circumstances relative to the division of the provinces; and upon a painful re-consideration of all that was to be undone, and unsettled, after I had fixed my opinions upon the authority of the best writers, who had preceded me on the subject.

The reader will expect proofs; and the proofs are, that the islands round the whole extent of the coast on the ocean will now fall naturally into their places, which cannot be effected by any other arrangement. The islands in Ptolemy will become relatively consistent with those of the Periplus; and the Bay Sachalites, which Ptolemy has been accused of transposing from the west to the east of Syágros, is reduced to the different application of a name, instead of a difference in point of situation.

Sachalites is universally allowed to be the Greek form of expressing the Arabick Sahar¹⁷⁰. Now there are two Sahars on the

¹⁷⁰ Sahar becomes Sachar by enforcing the sound of the aspirate, and the change of the final r is analogous in a variety of instances; thus, Degel formed into Deger, is the river

Tigris of the Greeks; and Sinus Sachal-ites is equivalent to Sachar-ites, the bay of Sachar or Sahar.

coast of Arabia: one that is almost central between Aden and Fartaque; and another that lies to the east of Fartaque, between that cape and Cape Morebat or Merbat¹⁷¹. In the first¹⁷² of these there is little variation of orthography; but the other is written Schæhr, Schahr¹⁷³, Shahar, Cheer¹⁷⁴, and Seger. They are both frequented as places of trade to this day. And if we suppose that the first Sahar is the Sachalites of the Periplûs, and the second Shabar, the Sachalites of Ptolemy, the Syágros of Ptolemy will answer to Fartaque as well as the Syágros of the Periplûs, and the two authors will be in harmony with each other.

Further proofs of this reconciliation will be given in our progress along the coast, and some difficulties that attend it will be acknowledged; but if it should be admissible or probable upon the whole, much indulgence is due in regard to inferior objections; as, upon the first view of the coast before us, no two accounts can seem more irreconcilable to each other than those of Ptolemy and the Periplûs.

¹⁷¹ Cape Merbat, called Morebat and Marabout in our charts, is a headland much noticed by our English navigators; it is one of the principal sources of frankincense; for Al Edriffi says, in montibus Merbat nascuntur arbores thuris quod deinde in omnes Orientis et Occidentis partes defertur. It is four days, or an hundred miles, from Hasec, and consequently in the very heart of the district, which is the Sachalites of Ptolemy. I observe in some authors a division of the coast into Thurifera Regio, Prior and Uterior: if this is founded, the Prior would be previous to Fartaque, and the Uterior to the eastward of it; the first would be the Sachalites of the Periplûs, and the latter the Sachalites of Ptolemy; and respectively, the Hadramaut and Seger of Al Edriffi. But I rather think the distinction

modern, at least I have not yet met with it in any ancient author. See Al Edriffi, p. 27.

¹⁷² The first Sahar is meant by Niebuhr, as he places it in the province of Jafa, which lies between Aden and Hadramaut; and he writes it Schâhr, Arabie. Tom. ii. p. 125. French edition.—It is likewise the Esfeir of Marco Polo. 40 miles from Aden. Lib. iii. c. 40.

¹⁷³ In the French Voyage, by La Roque 1716, which, with the French pronunciation, is our English Schæhr, pronounced Share.

¹⁷⁴ Renaudot's Arab calls it Sihar or Shihr, which is the English Sheer. The produce, he says, is frankincense. The ships of Siraaf go to Jidda, but never farther in the Red Sea. Their cargoes are conveyed to Egypt in ships of Colsum, the Red Sea, p. 93.

XIII. KANÈ.

THE first port to which we are to proceed from Aden, is Kanè¹⁷⁵; the distance is stated at two thousand stadia or more, upon a length of coast inhabited by Bedouins and Ichthyophagi; and if we estimate the number of stadia at two hundred miles, the termination falls very nearly at the Cava Canim of d'Anville, or at Maculla Bay, which lies a very few miles to the eastward. Our charts take notice of both; and at Cava Canim, which is inserted principally upon the authority of d'Anville, there appear some islets, which may be Orneôn¹⁷⁶ and Troolla, described as desert isles by the Periplus; and which, if they exist, identify Cava Canim for Kanè, in preference to Maculla. In point of distance, either is sufficiently exact to answer the purpose; for Maculla is sixty¹⁷⁷ leagues from Aden, and Cava Canim eight or ten miles short of that bay.

Kanè is represented as a port of considerable trade, subject to Eléazus, king of the Incense country, who resided at Sabbathá, the principal city of the district, which lies at some distance inland. At Kanè is collected all the incense that is produced in the country, and which is conveyed hither both by land and sea, either by means

¹⁷⁵ I have not been without suspicion, that Kanè might be Kefehin, which I have found written Cassin; that is, Kâsa in Oriental pronunciation. But, I have the name only to guide me to this suspicion; for Kefehin would not agree with the distance from Aden, or to C. Parataque, or with the Bay Sachaltes, of the Periplus. Neither have I yet found, in any map or narrative, two islands off Kefehin, to correspond with Orneôn and Troolla.

Islands, rivers, mountains, and promontories, are our surest guides.

¹⁷⁶ Orneôn is Bird Island, so called perhaps from the universal habit of sea fowls resorting to desert islets; and Troolla has no meaning in Greek. It is said to lie 120 stadia from Kanè, of which I can find no trace.

¹⁷⁷ Sixty leagues, or 180 geographical miles, are equal to 208 miles English. See Oriental Navigator, p. 162.

of caravans, or in the vessels of the country, which are floats supported upon inflated skins¹⁷⁸. Sabbathath is supposed by most of the commentators to be Schibam or Scebam, which Al Edrissi places in Hadramaut, at four stations, or an hundred miles, from Mareb: a certain proof that we have adopted the right Sahar for the Periplus; because Mareb cannot be within *three* hundred miles of the Eastern Sahar, or Seger; and Seger is not considered by Al Edrissi as a part¹⁷⁹ of Hadramaut, but as a separate district.

It is remarkable that the author of the Periplus, who notices Sabêa and Oman by name, makes no mention of Hadramaut, the third general division of the coast, but distinguishes it only by the title of the Incense country. To maintain that these are the three general divisions of Arabia on the Indian Ocean, is consonant to all the evidence we have, ancient and modern; neither do independent districts or sheiks, as those of Keschin, Seger, or Maħra, interfere with this distribution. And that we are equally correct in assigning the Western Sahar to Hadramaut, is capable of proof; for Al Edrissi says, from Aden to Hadramaut, which lies to the east of Aden, are five¹⁸⁰ stations. If therefore we observe, that at Kanè we are already two hundred miles east of Aden, we are advanced far enough to shew that we are in Hadramaut¹⁸¹, and that the Western Sahar is properly placed in that province.

¹⁷⁸ These floats are noticed by Agatharchides, and are by some supposed to give name to a tract inhabited by Afcitæ, from *Aoxê*, Uter.

¹⁷⁹ Ab Aden autem ad Hadramaut quæ jacet ab orientali latere ipsius Aden, stationes quinque. P. 26.

¹⁸⁰ Terræ Hadramaut contèrmina est ab oriente terra Seger. P. 53.

¹⁸¹ Ptolemy makes Kanè the emporium of Hadramaut.

At Kanè likewise, as there was an established intercourse with the countries eastward¹²²; that is, with Barugaza, Scindi, Oman, and Persis¹²³; so was there a considerable importation from Egypt, consisting of the following articles:

Πυρὸς ὀλίγος,	-	-	-	A small quantity of Wheat.
Οἶνος,	-	-	-	Wine.
Ἰματισμὸς ¹²⁴ Ἀραβικὸς,	-	-	-	Cloths for the Arabian market.
κοινὸς,	-	-	-	Common sort.
ἀπλῆς,	-	-	-	Plain.
νόθος περισσότερος,	-	-	-	Mixed or adulterated, in great quantities.
Χαλκός,	-	-	-	Brafs.
Κασσίτερος,	-	-	-	Tin.
Κοράλιον,	-	-	-	Coral.
Στύραξ,	-	-	-	Storax, a resin.

And many other articles, the same as are usually imported at Mooza. Besides these also, there are brought

Ἀργυρώματα τεταραυμένα,	-	-	-	Plate wrought, and
Χρήματα τῷ βασιλεῖ,	-	-	-	Specie for the king.
Ἴπποι,	-	-	-	Horses.
Ἀνδριάντες,	-	-	-	Carved Images.
Ἰματισμὸς διαφόρος ¹²⁵ ἀπλῆς,	-	-	-	Plain Cloth, of a superior quality.

¹²² Τῶν πέραν Ἰματιῶν, I had supposed to mean the marts only on the coast of Africa beyond the straits; but, from the usage here, the expression is evidently extended to all ports beyond the straits, not only in Africa, but in India and the Gulph of Persia.

¹²³ Τῆς παρακειμένης Περσίδος, is the coast of Persia opposite to Oman.

¹²⁴ Not cloth of Arabia, but for the Arabian market: so we say in the mercantile language of our own country, Cashmere cloth; that is, cloth for the market of Cashmere. And the word Ἰματισμὸς seems to imply, that the cloth was made up into garments.

¹²⁵ Apparently in opposition to Κοινὸς.

The exports are the native produce of the country :

Λίβανος,	-	-	-	-	Frankincense.
Ἄλβη,	-	-	-	-	Aloes.

and various commodities, the same as are found in the other markets of the coast. The best season for the voyage is in Thoth, or September*.

After leaving Kanè, the land trends inward, and there is a very deep bay called Sachalites, that is, the Bay of Sachal or Sachar, and of a very great extent. The promontory (which is at the termination) of this is called Syágros, which fronts towards the east, and is the largest promontory in the world. Here there is a garrison for the protection of the place, and the harbour is the repository of all the Incense that is collected in the country.

XIV. BAY SACHALITES, HADRAMAUT.

THIS bay of Sachal has already been asserted to be Sahar; and this Sahar, or "Shahar"¹⁶⁶, appears to be a fine town at the present day, situated by the sea-side; and it may be seen five or six leagues off. The point of Shahar is twelve or thirteen leagues "from Maculla Bay;" while the coast, with various curves, but no indenture so great as the Periplús requires, stretches E.N.E. to Cape Fartaque¹⁶⁷; and that this Fartaque is Syágros, is the point now to be proved.

¹⁶⁶ Oriental Navigator, p. 162.

¹⁶⁷ Written Fartak, Fartash, Fortuash.

* I request the Reader to correct an error on this subject, p. 288. supra, where it was said, that the season was the latter part of August, and connected with the voyage to Musáiris. I now find, that the voyage to the southern coast of Arabia was a distinct navigation. They might make it earlier; but they sailed later in the season, that they might have left time to wait for the easterly monsoon in November.

And first, that it points to the east is true ; but it is not true that it is the largest promontory in the world ; for Ras-el-had, on the same coast, is larger. But it is more conspicuous, and was of more importance, probably, in the author's view, as forming the great entrance to the Gulph of Arabia, in conjunction with Cape Arômata on the coast of Africa ; and as such, it is still a point of most material consequence in the opinion of modern navigators, as well as in that of the ancients.

A second proof is, that Socotra is said to lie between this cape and Arômata ; which, in one respect, is true, and cannot be applied to Ras-el-had. And a third is, that the islands of Curia Muria, and Mazeira, are to the east of this cape, as they really lie ; while, if Syágros were fixed at Ras-el-had, the islands must lie on the west of the Cape, directly transposed from their real position to an erroneous one. But of this we shall treat in its place. We must now return to Sahar, which is considered in the Periplus as the heart of the Incense country, and the Incense country is Hadramaut.

Hadramaut is the Hatzar-maveth of Genesis, which signifies¹⁰⁰ in Hebrew, the Court of Death ; and in Arabick, the Region of Death ; both names perfectly appropriate, according to the testimony of the Periplus, which informs us, “ that the incense is collected by “ the king's slaves, or by malefactors condemned to this service as “ a punishment. The country is unhealthy in the extreme ; pesti- “ lential even to those who sail along the coast, and mortal to the “ wretched sufferers employed in collecting the frankincense ; who “ perish likewise as often by want [and neglect] as by the pernicious influence of the climate. The country inland is mountainous, and difficult of access ; the air foggy, and loaded with

¹⁰⁰ Bochart Phaleg. p. 101.

“ vapours caused [as it is supposed] by the noxious exhalations
 “ from the trees that bear the incense; the tree itself is small and
 “ low, from the bark of which the incense¹⁸⁹ exudes, as gum does
 “ from several of *our*¹⁹⁰ trees in Egypt.”

The conveyance of this drug by land, Pliny informs us, was through Thomna, the capital of the Gebanites, to Gaza on the coast of Palestine, by a caravan that was sixty-two days in its progress; and that the length of this journey, with the duties, frauds, and impositions on it, brought every camel's load to upwards of two-and-twenty pounds, English; and a pound of the best sort at Rome, to more than ten shillings. The course of this conveyance is not easy to comprehend¹⁹¹; for if the commodity passed by a caravan, the Minæans were central, and the usual carriers from Gerrha on the Gulph of Persia, from Hadramaut also, and from Sabæa, to Petra in Idumæa. But we must not understand this as excluding the conveyance of the incense to Alexandria by the Red Sea; for that city was the great repository of this, as well as

¹⁸⁹ It has been observed already from Niebuhr, that the best incense is now procured from India, by far more clear, white, and pure, than the Arabian; and it is a circumstance well worth inquiry, whether the collection of this gum is attended with the same fatal effects in that country as are here described; and whether the consequences are deducible from the drug itself, or from the nature of the country. Those who are desirous of learning more than is here remarked on this subject, may consult Pliny, lib. 12. c. 14. and Salmastius, 48*, et seq.

¹⁹⁰ ὅτι τὰς καὶ τὰς παρ' ἡμῶν ἐν Ἀρῆστῳ ἐπιφέρει. This is an expression so clearly marking the country of the writer, that it cannot be mis-

taken; and the whole description is not that of a man who merely wrote upon the subject, but of one who had visited the country, and painted what he saw.

¹⁹¹ Bochart places Thomna between Sabbatha and Mariaba, and supposes the Katabéni and Gebanites to be the same people; which they are; for Pliny makes Ocila (Okélis) a port of the Gebanites, xii. 13.: but if so, it is the territory of Maphartis he must place them in; and they would not move by caravans, but by sea. Strabo, however, makes Tamna the capital of the Katabéni, p. 768.; and his Katabéni are not between Sabbatha and Mariaba, but in the territory of Maphartis.

all the other produce of India and Arabia. Pliny¹⁹² mentions this particularly, and notices the precautions taken by the merchants of that city to prevent fraud and adulteration.

The Periplus does not advert to any particular spot in this bay, or specify any town of Sachal; but, after relating the circumstances as they are here stated, proceeds directly to Syágros. Syágros, or the Wild Boar, would naturally induce a persuasion that it was a nautical appellation, like the Ram Head¹⁹³, Dün Nose, &c.; but it is far more probably to be, like Phenicon in the Red Sea, derived from the palm-trees observed there, of a particular species, called Syágros: they are of a superior sort¹⁹⁴, as Pliny informs us, with large fruit, hard, and rough in appearance, and with a high relish of the flavour of *wild boar*. What this flavour is, we may leave to the naturalists to determine; but the allusion to Syágros is manifest; and that the Cape takes its name from its produce, is a natural conclusion. That this promontory is actually Cape Fartaque, cannot be doubted, if we now advert to the particulars connected with it; for we are told, that the island of Dioskórída lies between this point and Cape Arômata, or Gardesfan, on the coast of Africa; that it is at a considerable distance in the open sea, but nearer to Syágros than to the Cape opposite; and that it is a large island, far exceeding all the others that appertain to the coast of Arabia.

Now although this account is not strictly accurate, for Socotra is not actually between the two capes, but forms a terminating point

¹⁹² Lib. xii. 14.

¹⁹³ So Κρηῖς ἀρρώστος in Crete.

¹⁹⁴ De Palmis. In meridiano orbe præcipuam obtinent nobilitatem Syagri ipsum pomum grande, durum, horridum, et a cæteris generibus ditans sapore ferino,

quem ferme in *apris* novimus. Plin. xiii. 4.

It is not the coco-nut palm; for, among his forty-nine species, Pliny afterwards mentions the Cycas (Κυκας) pomu rotundo, majore quam mali amplitudine.

to Cape Gardafan, like our Scilly Islands to the Land's End, and is consequently nearer Africa than Arabia; still, speaking generally, the description in other respects is sufficiently correct. The most transient reference to the map will at least prove, that none of these circumstances can be applied to Ras-el-had; for that cape lies almost seven hundred miles farther to the north-east, and can hardly be said, in any sense, to be *opposite* to Gardafan, but by drawing a line of such extreme obliquity, as would never occur to the mind of a mariner under the idea of an *opposite* promontory.

XV. DIOSCÓRIDA, OR SOCOTRA.

DIOSCORIDA, Dioscorides, Dioscúrias, or Dióscora, may have a Greek origin, but it has so near a resemblance to Socotra or Zocotora, that it is much more likely to be a nautical corruption of an Arabick term, than the application of a Greek one.

This island is near an hundred miles long, and thirty at its greatest breadth: it was inhabited only on the northern¹⁵⁵ side in our author's age, and the population there was very scanty, consisting of a mixture of Arabians, Indians, and Greeks, who had resorted hither for

¹⁵⁵ In the French Voyage published by La Roque, 1716, Paris—Tamarin, the capital of the island, was still on the north side. He mentions also, that it was subject to the sheik of Fartaque, the same probably as the sheik of Kefin; though he calls Fartaque the capital, and Seger, or Schöhr, the port (p. 151). The French obtained here aloes, at eight pistres the quintal of 95 pounds; besides frankincense, civet, and gum dragon. Tamarin

was a well-built town. There are two voyages contained in this work; and in the second, a party went up from Mokha to Sana, who speak well of the Arabs, and the Imam's government. It is a curious work, well digested and put together; and the more worthy of consideration, as I know of no other Europeans who have been at Sana, except Barthema and Niebuhr.

the purposes of commerce; while the remainder of the country was marshy and deserted. Marco Polo informs us, that in his time the inhabitants were Christians; and Al Edrissi confirms this, with the addition, that the Greeks were introduced there by Alexander¹⁹⁶, at the request of Aristotle¹⁹⁷, in hopes of obtaining aloes, the principal produce of the island, and of the best quality that is known. Now it is remarkable, that aloes is not mentioned by the author of the Periplus; but he notices particularly the drug called Indian¹⁹⁸ cinnabar, which exudes from a certain species of trees, and tortoise-shell, of the largest size and best sort; adding, that there is likewise the mountain or land-tortoise, which has the lower shell of a ruddy yellow, and too hard to be cut; and that from the solid part of this were formed cases¹⁹⁹, boxes, and writing-tablets [of great value].

¹⁹⁶ When he was returning, says Al Edrissi, from the Persian Gulph to the Gulph of Arabia: which, unfortunately, he never did; and equally unfortunate is he in the reason he assigns for the inhabitants being Christians, because Alexander planted Greeks there.

Cosmas Indicopleutes says, they were Greeks from Egypt; he was not at the island, but conversed with some of the natives in Ethiopia: they were Christians, and their priests were from Persia, that is, they were Nestorians. Bayer Hist. Baft. p. 111. in Montfaucon's Edit. of Cosmas, p. 179.

Marco Polo says, in Mosul on the Tigris, hanno un patriarcha che chiamano Jacolit (catholico) il qual ordina: Arci Vescovi, Vescovi, & Abbati, mandandoli per tutti le partie dell India & Al Cairo, et in Baldach (Bagdat), & per tutte le bande dove habitano Christiani non pero secondo che commanda la

chiefa perche falla in molte cose, et sono Nestorini, Jacopiti et Armeni. Lib. i. c. 6.

¹⁹⁷ Dapper mentions aloes, ambergris, and gum dragon, &c. from a tree called Ber; and notices the Arabs from Caxem (Kefchin), and Fartaque as ruling. They are not now Christians, he says; but have christian names, as the remains of that religion.

¹⁹⁸ The native cinnabar is a mineral; and what is meant by Indian cinnabar that distils from trees, is not easy to determine. But I find in Chambers's Dictionary, that there has been a strange confusion between cinnabar and dragon's blood; the dragon's blood therefore is meant, which is one of the natural productions of the island.

¹⁹⁹ Al Edrissi, speaking of the tortoise-shell at Curia Muria, says, dorfa testudinum ex quibus conficiunt sibi incolæ Laman paropides ad lavandum & pinfendum. P. 24.

He informs us also, that there were several rivers²⁰⁰, and abundance of crocodiles, snakes, and large lizards; from the last of which they expressed the fat, which they used for oil, and the flesh for food: but they had neither corn nor vines. Some few merchants from Mooza visited this island; and some that frequented the coasts of India and Cambay touched here occasionally, who imported rice, corn, India cottons, and women²⁰¹ slaves, for which they received in exchange very large quantities of the native tortoise-shell.

In the author's age, this island was subject to Eleázus, the king of Sabbatha, who set the revenue to farm²⁰², but maintained a garrison for the purpose of securing his receipts and supporting his authority. This fact is similar to what we had occasion to notice on the coast of Africa, where several of the ports in Azania (or Ajan) were subject to Charibáel and Cholébus, whose territories were in Yemen; and Niebuhr informs us, that Socotra is at this day subject to the sheik of Keschin, who has considerable possessions in Hadramaut; and Keschin, which lies a few leagues to the westward of Fartaque, cannot be very distant from the territory of Eleázus.

The consistency of these circumstances in the ancient and modern accounts, may induce a persuasion that we have traced out our way so far with certainty and precision; the next step we are to advance, is the only one on the whole coast which will raise a

²⁰⁰ The water here is very good; it runs from the mountains into a sandy valley among date trees. The natives are civil to strangers, but very poor; and the only commodity to trade with, is rice [an article in the Periplus], for which we had in exchange some cows, goats, fish, dates, good aloes, and gum dragon.

The prince, or viceroy, resides at Tamarida, on the north side of the island. Capt. Blake, *Oriental Navigator*, p. 149.

²⁰¹ Σήμετα θύλακὲ διὰ σπάνου καὶ προχρημάτων; carried there, because they had few women for the haram.

²⁰² Ἡ πόλις ἑκατομίσθιαται.

doubt, and which has certainly been the source of the constant opinion embraced by modern ²⁰¹ geographers, that Syágros is not Fartaque, but Ras-el-had.

XVI. MOSKHA AND ÓMANA.

I SHALL state this circumstance in the very words of the author; for he says, "Adjoining to Syágros there is a bay which runs ²⁰² deep into the main land [of] Ó'mana, six hundred stadia in width; after this there are high mountainous rocks, steep to, and inhabited by a [wild] race, that live in caverns and hollows of the cliff. This appearance of the coast continues for five hundred stadia more, at the termination of which lies a harbour called Moskha, much frequented ²⁰³ on account of the Sachalick incense which is imported there."

It ²⁰⁴ is the mention of Moskha and Ó'mana here that necessarily suggests the idea of Maskat, which is in Oman, and the principal port of trade in the province: the description of the mountainous coast is characteristic; and the distance, supposing Ras-el-had to be Syágros, not incongruous. I cannot account for this coincidence; but I do not think that Moskha is Maskat, because Maskat is beyond C. Ras-el-had; and I shall shew immediately, by the islands which succeed Moskha, that we are not yet arrived at Ras-el-had by four hundred miles. Neither will the Moskha of Ptolemy solve the diffi-

²⁰¹ Bochart supposes Syágros to lie between Hadramaut and Sschalites; which is true in regard to the Sachalites of Ptolemy, and then it is Fartaque. Phaleg. 106.

²⁰² Ἐπὶ βόρῃ; ἰδίως ἐν τῷ ἑσπέρῃ, Οἰμανία.

²⁰³ Ὀρισ; ἀπαρδευμένος, the appointed, the regular port.

²⁰⁴ Consult d'Anville's Memoire sur le Mer Erythraée, Academie de Belles Lettres, tom. xxxv. p. 598.

culty; for he carries it farther back than the Periplûs, and has placed it to the westward of Syágros, which is *his* Fartaque likewise, as well as the Fartaque of our author.

The mention of O'mana here is still more unaccountable; but I was in hopes to have reconciled it by means of a river O'rmanus, or Hórmanus, which Ptolemy has in his Bay Sachalites, and which he brings down from a place called O'mana. This, however, is not to be depended upon; for his map is so distorted on this part of the coast, that it leaves the whole matter in uncertainty. One circumstance only can be deduced from it; which is, that his Ormanus and O'mana are both to the westward of Ras-el-had, as well as the O'mana and Moskha of the Periplûs: the proof of which is, that they both precede his Koródamon, and Koródamon must be the representative of Ras-el-had, as it is his extreme point east of the whole peninsula.

There are no data for placing the Moskha of the Periplûs, but the distance of eleven hundred stadia from Syágros; and this measure brings it nearer to Seger, the Sachalites of Ptolemy, the Schœhr of the moderns, than any other place it can be referred to. At Moskha, the mention of the Bay Sachalites is again introduced by the Periplûs; for the author informs us, that throughout the whole extent of that bay, in every port, the incense lies in piles without a guard²⁰⁷ to protect it, as if it were indebted to some divine power for its security. Neither is it possible to obtain a cargo, either pub-

²⁰⁷ There is nothing very extraordinary in this: plenty of a commodity, however valuable, and familiarity with the sight of it, take off from the edge of deprecation. Bars of silver lie apparently without a guard in the

streets of Panama; but in Seger, besides the protection of the gods, the *sheik* feels to keep good watch, if a single grain cannot be got off till the duty is paid.

licly or by connivance, without permission of the king. Nay, if a single grain were embarked clandestinely, good fortune indeed must the merchant have who could escape with his vessel from the harbour.

At Moskha there is a regular intercourse by sea with Kanè; and such vessels as come from Limúrikè²²⁸ and Barugaza, too late in the season, and are obliged to pass the adverse monsoon in this port, treat with the king's officers to obtain frankincense in exchange for their muslins, corn, and oil²²⁹.

If it should now be asked, whether I am myself satisfied with the account here given of O'mana and Moskha, I could not answer in the affirmative. These two names certainly throw a shade of obscurity and difficulty over the arrangement of the coast; and if this barren subject should be reviewed by a future commentator, much pleasure would it be to see those obstacles removed, which I have not been so fortunate as to surmount.

Still that, upon the whole, the assumption of Fartaque for Syágros is right, depends upon proofs now to be produced, which are incontrovertible; for we are now advancing to two groupes of islands, which are the most conspicuous of any that are attached to the coast of Arabia on the ocean; and as islands, rivers, and mountains, are features indelible, in these we cannot be mistaken.

XVII. ISLANDS OF ZENÓBIUS, OR CURIA MURIA.

AT fifteen hundred stadia distance from Moskha, which I have supposed to be Seger; and at the termination of the district called

²²⁸ Concan and Cambay.

²²⁹ Probably ghee, or liquid butter.

Afikho, there are seven islands, almost in a line, called the Islands of Zenóbius. Now the distance answers to make these the islands in the Bay of Curia Muria, the Chartan²²⁰ Martan of Al Edrissi; and though he says they are only four, and four only they appear on our charts, it is conclusive in their favour, that he styles the bay Giun-al-Hascife²²¹; and Hasek (the Afikho of the Periplus) is the principal town in the bay at the present hour. Hasec²²² Al Edrissi calls it himself in another place, where he mentions only two islands, as Chartan and Martan; and says, it is a small city, but populous, and the bay deep and dangerous. The four islands have now obtained the names of Halki, Sordi, Halabi, and Deriabi; and it is possible that some rocky or deserted islets attached to them may have caused them to have been reckoned seven; for seven they are in Ptolemy also, placed in the same relative situation between Fartaque and Ras-el-had, though not correct in their vicinity to the coast.

XVIII. S A R Á P I S, OR M A Z E I R A.

FROM Hasec, or Afikho, we have, first, a tract inhabited by a barbarous tribe²²³, not subject to Arabia but Persia²²⁴; and at the distance

²²⁰ Bochart says, that by a change of the points, he reads Curian Murian for the Chartan Martan of Al Edrissi.

²²¹ Sinus Herbarum, Al Edrissi, p. 22.—P. 27. he makes Hasec the city, and AlHascife the bay; but are they not the same name?

²²² Here Ptolemy places the Aicite, whose name he derives from *αἰκίται*, because they sail on floats supported on inflated skins; but this is giving a Greek derivation of an Arabick name. Bochart conjectures, with much more probability, that they are the inhabitants of

Hasek; and that Ptolemy's Mæphat is a corruption of Merbat, as it is written in Al Edrissi, the C. Morebat of our charts. Phalæg. 106.

²²³ *Ἡ ἀφ' ἧς τῶν προσηγοριῶν αἱ ἐπισημαίνονται ἀπὸ τῶν Ζωοῦσι;* rendered by Hudlon, *Hanc ubi ex superioribus locis pratervectas fueris: but ἀφ' ἧς means keeping off shore by a direct course, in opposition to προσηγοριῶν, or following the bend of the coast.*

²²⁴ This is no more extraordinary than that the sovereigns of Arabia should have territories

distance of two thousand stadia from the Islands of Zenóbius, another island called Sarápis. Sarápis, it is added, is an hundred and twenty stadia from the coast, two hundred stadia in breadth, and contains three villages, inhabited by priests, or recluses, of the Ichthyóphagi, who speak the Arabick language, and wear girdles or aprons made of the fibres of the cocoa²¹⁵. Plenty of tortoise-shell, and of a good quality, is found here, on which account it is regularly frequented by the small vessels and barks from Kanè.

If we should now consult the chart, and examine the size of this island, and its distance from the isles of Zenóbius, which we may estimate by the stadia at about two hundred miles, we identify it to a certainty with Mazeira; for there is no other island of this size, or at an hundred and twenty stadia from the coast, or perhaps capable of containing three villages, any where to the westward of Fartaque, or the eastward of Ras-el-had. It must therefore lie between these two points, and precisely ascertain, that we are past the one, and not yet arrived at the other; and likewise, that the isles of Zenóbius must, by their distance and relative situation, be the Curia Muria of the present day, notwithstanding their disagreement in point of number.

Mazeira is well known to modern navigators: its size and situation are sufficiently ascertained, and there is a channel²¹⁶ between the island and the main, through which English ships have passed.

stories on the coast of Africa. In Niebuhr's time, the sheik of Abu Schahr, or Balficer, in Persia, was master of Bahrain on the western coast of the Gulph of Persia.

²¹⁵ Περὶ ζῆμωνος φάλλου ΚΟΥΚΙΝΩΝ. We find the name of the Cocoa Palm-tree (as far as I can learn) first mentioned in this work. Pliny

had obtained it likewise. Cloth is still made of the fibres of the nut: whether the leaves afford a substance for weaving, or whether they were themselves the apron, may be doubted; the text is in favour of the leaves.

²¹⁶ Oriental Navigator, pp. 167, 163.

D'Anville has supposed that Sarápis is the same as Mazeira, without considering that if it be so, it is to the west of Ras-el-had, and that therefore his Syágrs, which is fixed at Ras-el-had, cannot be correct.

XIX. ISLANDS OF KALAIUS, OR SUADI.

UPON leaving Sarápis, we have another distance of two thousand stadia, and then another group, called the Islands of Kalaius. The distance is too short²⁷, but the islands are those of Suadi or Swardy, which lie between Maskat and Sohar, and which, according to M'Cluer²⁸, are formed into four ranges for the space of seven leagues, with a clear passage between them. In assuming these islands for those of Kalaius, there can be no error, for the language of our author is precise: he says, that as you are now approaching the Gulph of Persia, keeping close²⁹ round the coast, you change the

²⁷ I should read *επιχειρίεις* for *δευχολίεις*; but though I have suggested corrections, I have never ventured on an alteration of the text.

²⁸ Oriental Navigator, p. 181. & 175.

²⁹ Περικολιζέτωσιν δὲ τὴν ἰσθμὸν ἔπιπτον, ἢ ἀπὸ τῆς ΑΡΚΤΟΝ πρὸς τὴν ἰσθμὸν τῆς Περσικῆς θαλάσσης, κίεται νῆος πλείμματα, [πλείμματα, Stuckius.] Καλαίω ληγόμενα, πρὸς, σχοδῶσιν καὶ ταύτῃς δευχολίεις περιεγραμῆαι τῆ χώρῃ.

Thus rendered by Hudson:

In sinu autem vicinæ continentis, ad septentriones, prope ostium maris Persici insulæ jacent, ad quas navigatur, Caspi insulæ dicuntur, quæ fere his mille stadiorum intervallo a continente sunt disjunctæ.

But how islands that lie two hundred miles from the coast, can be said to lie in a bay of the continent, is not easy to comprehend. I propose *διαπλῆμασι*, or *περικολιζόμενοι*, *passed or sailed through*, for *πλείμματα*, and to render the passage thus:

[Proceeding on your course from Sarápis] you wind round with the adjoining coast to the north; and as you approach towards the entrance of the Gulph of Persia, at the distance of two thousand stadia [from Sarápis] you pass a group of islands, which lie in a range along the coast, and are called the Islands of Kalaius.

I imagine that *περικολιζόμενοι τῇ χώρῃ* cannot be rendered better than by describing the islands

the direction of your course to the NORTH. This is literally true at Ras-el-had, and no where else on the coast; for Ras-el-had is the extreme point east of all Arabia; and as soon as you are past it, the coast falls back again to the north-west. If we could reckon the two thousand stadia from the point where this alteration of the course takes place, that is, from Ras-el-had, the distance also would correspond.

After arriving at these islands, if we should review the whole course from Fartaque to Ras-el-had, there is nothing to interfere with the general statement, except the mention of O'mana and Moskha; and no single point ought to stand in competition with the whole. At the distance of eighteen hundred years, it is difficult to say whether the obscurity lies with us, or the author; one should rather acquit the author, who is so correct in other respects, and look for a solution from some future lights, which may appear, either from a better knowledge of the coast, or from some better readings of the commentators, considering that the copy which we have is certainly defective, and that no manuscripts are to be expected.

islands as "*lying in a range.*" Perhaps it should be read *παρὰ τὴν ἄκρην*; and this is the precise distinction of M'Cluer. ἄκρην may be read either with *ἡ ἀκρὴ τῆς Ἀραβίας*, or with *πρὸ τῆς νοτιῆς*, "*as you are just approaching the Gulf of Persia lie islands;*" and I place a comma at *δωρολίαι*, in order to make it express the distance from Sarápis: but if it be joined with the final clause, it must be rendered, "*the Islands of Kalais, which lie in a range two thousand stadia along the coast.*" This is not true; neither can we stretch the seven

leagues of M'Cluer, or one-and-twenty miles to two hundred. *Παρακλιθῆναι*, signifies literally, *to keep close to the shore; to follow the windings of the shore.* But whatever doubt there may be concerning the contents of the whole passage, nothing can be more plain than this one circumstance, that the course of the voyage is changed here to the NORTH, and this particular can be true only at Ras-el-had. This is the truth we have been searching for, and I think the proof is conclusive.

The natives, on the main opposite to these islands, are said to be treacherous, and their vision to be defective during the light of the day: what the latter circumstance may allude to, it is not material to inquire, but their treachery is natural if they are Bedouin Arabs, as Lieut. Porter²²⁰ says they were in his time at Sohar, and not civilized in their behaviour to the people of his boat.

XX. ISLANDS OF PAPIAS.

WE have now the Islands of Papias, and the Fair Mountain, with the entrance of the Persian Gulph: for the first, we must look to two or three small islands on the coast, beyond Sohar, towards the north; and at the last of these the Journal places the Fair Mountain, which would answer sufficiently to Cape Fillam, if that be high land; and not far from Fillam are the Straits.

It is not improbable, however, that the Islands of Papias may be the Coins, which lie immediately off the entrance of the gulph; for, in a letter of Lieut. McCluer to Mr. Dalrymple, he writes, "the Great Coin . . . lies in lat. $26^{\circ} 30' 0''$ north . . . and there are four other islands between this and Cape Muffeldom, all of them smaller than the Great Coin, and none of them inhabited . . . Besides these, there are seven others close in, which are not easily distinguished from the Arabian shore." But the determination of the question will depend upon the position in which we view the islands; for they seem to lie within Moçandon, while those of Papias precede it. We must likewise find a place for the Fair Mountain between them and the Cape, for which there seems hardly space sufficient.

²²⁰ Oriental Navigator, p. 177.

XXI. SABO, ASABO, OR MOÇANDON.

IT is well known that Moçandon is represented in Ptolemy by the black mountains called Afabo, the promontory of the Afabi; and that Sabo signifies South, designating, as it should seem, in the mind of Arabian navigators, the extreme point south of the Gulph of Persia. A tribe is also noticed in the neighbourhood, which is called Macæ both by Ptolemy and Arrian; and in Macæ we obtain probably the rudiments of Moçandon which we have from the Portuguese. But the Orientalists give a different etymology, and inform us, that Mo-salem is the Cape of Congratulation.

Moçandon is of vast height, and frightful appearance; it forms, with Mount ²² Ehowrs, or Elbours, on the opposite shore, the entrance to the gulph, which is near forty miles broad, estimated at sixty in the Periplus; and Elbours is called the Round Mountain of Semiramis: it is round, in fact, and has its modern name of Elbours from its supposed resemblance to the Fire Towers of the Guebres or Parsees.

Moçandon is a sort of Lizard point to the gulph; for all the Arabian ships take their departure from it, with some ceremonies of superstition, imploring a blessing on their voyage, and setting afloat a toy, like a vessel rigged and decorated, which, if it is dashed to pieces by the rocks, is to be accepted by the Ocean as an offering for the escape of the vessel.

Whether the author himself passed this cape, and entered the gulph, is very dubious; from the manner of the narration, I should conclude he never entered the gulph; for he mentions only two particulars within the straits, and then introduces the passage across the open sea from Arabia to Karmania.

²² These two mountains opposite, are the Owair and Kofair of Al Edrissi, p. 4.

XXII. TERÉDON, APÓLOGUS, or OBOLEH.

BUT the two particulars noticed are remarkable: the one is the Pearl Fishery, which extends on the bank great part of the way from Moçandon to Bahraïn; and the other is the situation of a town called Apólogus, at the head of the gulph on the Euphrates, and opposite the Fort of Pafinus or Spafinus. There can be no hesitation in adopting the opinion of d'Anville, that Apólogus is Oboleh, upon the canal that leads from the Euphrates to Basra; for Oboleh is situated, according to Al Edrissi²²², at the angle between the canal and the river; and he adds, that the canal covers it on the north, and the river on the east; consequently, this is as nearly opposite to the Fort of Pafinus, as the canal is to the Haffar River, which communicates with all the mouths of the Tigris and Euphrates.

Apólogus is Greek in its external form, but much more properly deduced, as d'Anville observes, from Obóleh, which, with the strong oriental aspirate, becomes Obolehh or Obolegh. We may consequently assume this for a proof of its existence as a place of commerce at so early a period, when it had probably taken place of Terédon or Diridótiis, as Basra took place of Obóleh under the second Caliphate²²³ of the Mahometans; but that Oboleh continued a mart of consideration long after the building of Basra²²⁴, we may

²²² P. 121.

²²³ Abulfeda Reïste, p. 113.

²²⁴ Al Edrissi mentions Basra sufficiently; but in his general description he says, Ab mari Sin derivatur mare Viride, estq; sinus Persiæ et Obolle, Sinus pervenit usque ad Obollam prope Abadan, ibiq; terminatur.

Mare Viride, - - the Persian Sea.

Mare Fulvum, - - the Caspian.

Mare Candidum, - - the Propontis.

Mare Nigrum, - - the Euxine.

Mare Venetum . . . the Blue Sea, or Mediterranean.

Why do we dispute so much about the mare Rubrum?

be assured by Al Edrissi's making it the termination of the gulph, as well as the Periplus; and Obolah, or a village that represents it, still exists between Basra and the Euphrates; the canal also is called the Canal of Obolah.

Teredon had been a city of great trade from very remote times; that is, from the age of Nebuchadnezzar to the Macedonian conquest. It seems to have continued so till the time of Augustus, for it is mentioned by Dionysius²²⁸; deserted afterwards, perhaps, from the failure of water in the Khore Abdillah, or ancient mouth of the Euphrates, and replaced by Obolah, probably during the dynasty of the Arsacides. The Babylonians, who commanded the river from the gulph to the capital, doubtless made use of it as the channel of Oriental commerce; and the traffick which had passed by Arabia, or by the Red Sea, through Idumæa, to Egypt, Tyre, and other places on the Mediterranean, was diverted by Nebuchadnezzar, after the destruction of Tyre, to the Persian Gulph; and through his territories in Mesopotamia, by Palmyra and Damascus, it passed through Syria to the West. After the conquest of Babylon by Cyrus, the Persians, who were neither navigators to the East, nor attentive to their frontier on the west, suffered Babylon, Nineveh, and Opis, to sink into ruin; the course of trade, therefore, returned to Arabia on the south, to the Caspian²²⁹ and Euxine on the north: Idumæa became again the resort of the caravans; and Tyre rose out of its ashes, till its power enabled it to maintain a siege of eight months against Alexander, in the career of his victories.

²²⁸ Dionysius is said to be the verifier of Eratosthenes's Geography; if so, it is not quite a proof that it did exist in his time.

²²⁹ See Strabo, p. 509. The trade passed by the Oxus into the Caspian Sea, and from the Caspian up the Cyrus and Araxes into

Albania; then down the Phasis, or Anthemus, into the Euxine; in Justinian's time, by Dubios, a country eight days from Thendosopolis in Cimæa, where the trade from India, Iberia, and Persia, meets the Roman merchants. Procopius de Bello Persico, p. 149.

XXIII. ORIENTAL COMMERCE BY THE GULPH OF PERSIA.

WHAT views this Conqueror had after his first victories, we can only conjecture; but after his return from India, we may be assured that his comprehensive mind had embraced all that vast system which was afterwards completed at Alexandria. His successors, the Ptolemies in Egypt, and the Seleucids in Syria, were rivals in this commerce; Palmyra, Damascus, and Antioch, all lie on the line of the caravans from the Persian Gulph; the Caspian and the Euxine were again frequented, and the commerce on this side enriched the kingdoms²⁷ of Prusias, Attalus, and Mithridates; while the navigation on the Indian Ocean, built upon the same foundation, made Alexandria the first commercial city of the world. Egypt, maintaining its intercourse with the East, in the first instance by means of the Sabæans, and finally, by fleets fitted out from its own ports on the Red Sea.

²⁷ It would be foreign to the present work to pursue the inquiry into this commerce, as carried on by land on the north. But it seems to have existed in the time of Herodotus, who mentions the trade on the Euxine conducted by interpreters of seven different languages: in the time of Mithridates*, 300 different nations met at Dioscúrias in Colchis; and, in the early time of the Roman power in that country, there were 130 interpreters of the languages used there; but now, says Pliny, the city is deserted; that is, in Pliny's age,

* Marcellus Heracleus. Hudson; p. 64. says, that Timotheus wrote a very imperfect work on Geography, and Erastosthenes copied him verbatim. Timotheus was a Rhodian. See an Account of his Work, *ibid.*

the Romans would not suffer the Parthians, or any of the northern nations, to traffic by the Euxine, but confined the whole trade to Alexandria, and the maritime intercourse with India. See Herodotus, lib. iv. and Pliny, lib. vi. 5.

Dioscúrias was on the Anticemus, one of the rivers that came out of Caucasus into the Euxine.

Dioscúrias was called Sebastopolis in Adrian's time, and the last fortification of the Roman empire. Arrian, who visited it, mentions nothing of its trade. Arriani Periplus Maris Euxini, p. 18. I find nothing of the Anthemus; but the Phasis was navigable for thirty-eight miles. Second Periplus Eux. Sea, Hudson.

In the following ages, the dynasty of the Arsacidæ divided these profits with the Romans; and in the decline of the Roman power, the revived Persian dynasty assumed such an ascendancy, that in the time of Justinian the Romans had recourse to the powers of Arabia²²⁸ and Abyssinia, to open that commerce from which the Persians had excluded them; and when the Persian dynasty sunk under the power of the Chaliphs, the Mahomedan²²⁹ accounts of the plunder found at Ctesiphon, prove the full possession of the Indian commerce by the Persians.

XXIV. CAIRO.

UPON the erection of two chaliphates, one at Bagdad, and the other at Cairo,* the commerce of India was again divided; but the greatest part of the precious commodities which reached Europe, came through the hands of the Venetians from Alexandria, till the Genoese opened the northern communication again by means of the Euxine, the Caspian, and their settlement at Caffa in the Crimea.

²²⁸ Procopius, lib. i. c. 20. mentions Justinian's application to the king of Abyssinia to obtain the importation of silk; but the Abyssinians could not effect this, the Parthians [Persians], having seized on the emporia. Paolino, p. 96.

²²⁹ When Heraclius took Deltagherd, the palace of Chosroes, he found in it aloes, aloes-wood, mataxa, silk thread, pepper, mullins, of mullin frocks without number, sugar, gin-

ger, silk robes, wove carpets, embroidered carpets, and bullion. Cedrenus, p. 418.—*Mirâza Enjêrî vîjucata.* Glycas, p. 270. who gives the same history of procuring silkworms as Procopius.

When Sad, the general of Omar, took Ctesiphon or Modain, the carpet is particularly mentioned. See Abulfeda Reiske, 70; but other particulars are omitted.

XXV. C R U S A D E S.

IN the eleventh and twelfth centuries, the Crusades opened to the eyes of the Europeans the sources of this Oriental wealth. The loss of the kingdom of Jerusalem enabled them to discover, that the power of Saladin was founded on the revenue derived from the commerce which passed through Egypt; and the work of Marin Sanuto³²⁰ is a Memorial presented to the Pope, and the principal sovereigns of Europe, in order to instruct them, that if they would compel their merchants to trade only through the dominions of the chaliphs of Bagdat, they would be better supplied, and at a cheaper rate; and would have no longer to fear the power of the soldans in Egypt.

What those sovereigns did not, or could not do, was effected three centuries later by the discovery of the Cape of Good Hope: to this discovery Europe is certainly indebted for the decline of the Turkish power, which at that time threatened the whole Western

³²⁰ This curious work is inserted in the *Gesta Dei per Francos*: it is highly interesting, both upon account of the commercial intelligence it contains, and the clear-sighted speculations of the author. I owe the knowledge of it to Bergeron, who has cited it in his *Treatise on Commerce* annexed to his collection of *Voyages*, which is itself also a most valuable work. The editor of the *Gesta Dei*, &c. says, he had the Memorial of Sanuto, in two MSS. copies; from Scaliger and Petavius; that one of these was bound in velvet, and ornamented with clasps, &c. so as to assure him that it was one of the original copies, presented by Sanuto himself to some

one of the princes: if so, I imagine it contains the oldest map of the world at this day existing, except the Ptolemaic Tables; for Marin Sanuto lived in 1324. His map, however, is wholly in the Arabic form; and, I conclude, built on one that he had procured when in Palestine. There is another *Livro Sanuto*, a geographer in the 16th century, whose work I have seen in the King's Library, but not examined; it seemed a valuable work for the age. In this Sanuto's time the India trade had settled again at Aden, where it was when the Romans destroyed that city 1300 years before. See lib. i. c. 1. The whole is worth consulting.

world; and the various other important consequences which ensued, are too well known, and have been too well detailed in history, to require insertion in the present work.

Of the interior of Arabia we know little to this day; but that, notwithstanding the danger of robbery, caravans of great value traversed it in all ages, we have certain evidence to depend on. Previous to the Periplus, we have the testimony of Strabo and Agatharchides; in the middle ages, the account of Al Edrissi; and, in our own time, we want no other proof than the English importations at Jiddah, which reach Mecca at the time of the Pilgrimage, and from thence seem to be dispersed over the whole peninsula.

At Grane likewise, in the north-west angle of the Persian Gulph, there has been a considerable importation till within these few years; and at El Catif, near Bahrain, which is the Gerrha of the ancients, there is some commerce besides the returns for the Pearl Fishery; but with the progress of which, inland, we are unacquainted.

Somewhere in the neighbourhood of Grane, was the seat of Abdul Wahab, who, with his army of deists and democrats, has plundered Mecca within these three years, upon the same principle as his brethren in Europe demolished the Church of their own country, and with much the same event to the plunderers; for Abdul Wahab is said to have fallen by the hands of an assassin, as the first democrats of France have mostly perished in the course of the revolution.

XXVI. G E R R H A.

GERRHA is one of the few towns in Arabia that Pliny has enabled us to fix with certainty; for he comes down the western coast of the gulph, which, he says, was never explored till visited by Epíphanes; and which is little known to any now except the natives: but Pliny, after passing the island of Ichara, and one or two obscure places, mentions Gerrha as a city five miles round, and the walls or towers built of fossil²²¹ salt. This is a circumstance true (I think) only at Ormus and El Katif, which, added to the size of the city, ascertains its identity. It is necessary to be particular in this respect, because the Gerrhæans are the first conductors of the caravans upon record; and it is highly probable, that long previous to history they enjoyed the profits of this traffic; for Agatharchides²²², who first mentions them, compares their riches with those of the Sabæans; and adds, that they brought much wealth into Syria, which was at that time subject to Ptolemy; and furnished a variety of articles for the industry of the Phenicians. By this we understand, that they crossed the whole peninsula to Petra in Idumæa, from which city we know that the intercourse was open with Tyre, Phenicia, and Syria. Strabo²²³ informs us, that they were the general carriers of all the produce of Arabia, and all the spices, or aromatics; but he adds likewise, that Aristobólus contradicts this, and says, that they go up the

²²¹ Strabo also, lib. xvi. p. 766. Charre had the same use of fossil salt, Plin. xxxi. 7.

²²² Hudson Geog. Min. Agatharchides, p. 64. διεταραχισμένον πᾶν τὸ πλεονεξὸν ἐς διαφορᾶς λόγῳ ἀπὸ τῆς Ἀσίας καὶ τῆς Εὐρώπης, the factors for all the precious commodities of Asia and Europe.

²²³ Περὶ τῆς γῆς ἢ τῆς ἐν Γερρῆαις τῶ ἐπίου τῶν Ἀραβίων φερτῶν καὶ τῶν Αἰματικῶν. Lib. xvi. p. 766. The Gerrhæans are the travelling merchants in caravans, and bring the produce of Arabia, and the spices of India.

Euphrates in boats, to Babylonia and Thapsacus, and from thence disperse their commodities in all directions by land. Both these relations may be true, as applied to different periods, in consequence of the obstructions they might meet with in their course, from the different powers of the several countries through which they were to pass²³⁴.

The Gerrhæans, we may naturally suppose, from their situation in the Gulph of Persia, and from their proximity to the opposite coast of Persis and Karmania, would lie more convenient, and more directly in the route of communication with the East, than any other tribe. And, as Agatharchides says, that the Minæans and Gerrhæans both met at Petra as a common centre, we have two routes across the peninsula, correspondent to the two sorts of commerce, which ought naturally to pass in different directions: for from Gerrha, the produce of India; and, through the country of the Minæans, the frankincense of Hadramaut; would regularly be directed to Idumea.

XXVII. MINÆANS.

THE site²³⁵ of the Minæans is not easy to fix; but by a comparison of different accounts, they were south of Hedjaz, north²³⁶ of Hadramaut, and to the eastward²³⁷ of Sabæa; and they were the carriers to all these provinces: their caravans passed in seventy days

²³⁴ See Al Edrissi, p. 121.

three stations south of Mecca. Al Edrissi.

²³⁵ Bochart Phaleg. p. 121. places them at Carno 'l Manzoli, supposing it to be the Carana or Carana of Pliny: Ptolemy places them much further south. Carno 'l Manzoli is but

²³⁶ Atramitis in Mediterraneo jugustur Minæi. Pliny, vi. 23.

²³⁷ Dionysius places them on the coast, but I think Dionysius alone.

from Hadramaut to Aila, as we learn from Strabo²³⁸; and Aila is but ten miles from Petra. The commodities brought by this caravan would be aloes, gold, myrrh, frankincense, and other precious gums or aromatics; while those from Gerrha would consist of cottons, spices, and the produce of the East.

As navigation increased on the coast, this mode of intercourse, and its profits, would naturally diminish. When the Ptolemies sent their fleets to Sabæa; when the Greeks, Egyptians, or Romans, reached India by the monsoon, the greatest part of what had passed through Arabia would be diverted into a new channel; in the same manner as the discovery of the Cape of Good Hope ruined the commerce of Alexandria. But that some intercourse existed, and that some caravans traversed Arabia, both in the middle ages, and do traverse it even to this hour, is a fact that cannot be disputed.

After the conquest of Persia by the Mahomedans, a road was made across the whole of the peninsula, from Mecca²³⁹ to Kufa: it is reported to have been seven hundred miles long, marked out by distances, and provided with caravan serais, and other accommodations for travellers. Into this road fell the route from Basra, and from El Katif or Gerrha. The province of which El Katif is the capital, is called Bahrain²⁴⁰ by Al Edrissi, from the two islands of that name which are the principal seat of the Pearl²⁴¹ Fishery. He speaks of El Katif as a considerable city in his time; and he gives the routes

²³⁸ Lib. xvi. p. 768. the time seems in excess; but as the distance is taken from Hadramaut to Aila, it may not exceed the proportion of 60 days from Minæa to Nera, attributed to Gallus.

²³⁹ From Mecca to Bagdat, according to Abulfeda Reiske, p. 154. wells, lakes, mile-

posts, for 700 miles. See Gibbon, v. 409. the road was made by Ol Madi Khaliph, anno Hejra 169, the post goes in eleven days.

²⁴⁰ Bahrain, in Arabick, signifies the two seas.

²⁴¹ Tylos margaritis celeberrima. Plin. vi. 28.

from it south to Sohar, north to Basra, and west to Medina²⁴²; the country on the side towards Basra is a desert seldom frequented by merchants, without villages, and inhabited only by Bedouins. But the route to Medina falls into the road that leads from Basra; and both Basra and El Katif are at equal distance, that is, twenty stations from that city, where is the sepulchre of Mahomet. The road from Basra falls into that from Kufa at Maaden²⁴³ Alnocra. I mention these circumstances, in order to shew the communications with El Katif, or Gerrha, in the middle ages; because they cannot be dissimilar from those which were open when Gerrha was a centre of Oriental commerce; and the route which led to Medina requires only a little tendency to the north, to make it the ancient line of intercourse between Gerrha and Aila, and from thence through Petra²⁴⁴ to Egypt, Tyre, and the coasts of the Mediterranean.

XXVIII. ANTIQUITY OF ORIENTAL COMMERCE.

So far as a private opinion is of weight, I am fully persuaded that this line of communication with the East is the oldest in the world; older than Moses or Abraham. I believe that the Idumæans, who were carrying spices into Egypt when they found Joseph in their

²⁴² There is another route supposed to be intimated in Strabo, from Gerrha to Hadramaut; but the reading, instead of Γερχά, is Γαζάν, which, Salmastius says, ought to be Γαζάν, from Gaza to Hadramaut forty days. If this were so, it contradicts another passage of Strabo, where he says, the Mindæans were seventy days in going to Elana, which is a less distance. It seems highly probable that the

Gerrhæans are meant in this place; for, as they were general carriers, it is probable they went to Hadramaut as well as in other directions.

²⁴³ A Basra ad Medinam viginti stationes et hæc via coincidit cum extremitate Kufa, prope Maaden Alnocra, p. 121.

²⁴⁴ Petra was only ten miles from Aila, Bochart Phaleg. 686.

way, obtained these spices by this very route. And if it is agreeable to analogy and to history that merchants travelled before they sailed, there is no course from India to the Mediterranean where so small a space of sea must be traversed as in this direction. Karmania is visible from Arabia at the straits of the Gulph of Persia; and in the infancy of navigation, the shortest passage would be preferred. The interior of Arabia, in all ages, contained Bedouins, whose profession was robbery; but the different tribes of robbers probably received a caphar instead of seizing the whole; as they do to this day of the caravans which pass between Basra and Aleppo. They are likewise not fond of fighting for the whole, when they can obtain a tribute for a part; and necessity would compel the merchants of those ages, as well as our own, to go in large bodies, and provided with arms for their defence. The manners of the Arabs have never changed; and it is reasonable to conclude, that merchants who have to treat with Arabs have changed as little in their precautions. Pliny²⁶⁵ has preserved the memorial of these usages in the southern part of the peninsula; and there is every reason to conclude that they existed in all ages, before his time, as they do to the present hour.

It was to obviate these exactions that plans were formed to open a communication by sea. The Tyrians, as the principal merchants on the Mediterranean, and as the intermediate agents of Oriental

²⁶⁵ Ibi decimas Deo, . . . regi vestigal, . . . sacerdotibus portiones, scribilque regum . . . sed præter hos, et custodes, satellitesque & hostiarum [Offiarum] populantur. Jam quocunque iter est, aliubi pro aqua; aliubi pro pabulo, aut pro mansionibus, variisque porteriis pendunt. . . . iterumque imperii nostri publi-

cans penditur.—I appeal to every English traveller, who has ever passed between Basra and Aleppo, if this is not an exact picture of the extortions practised upon a caravan; and yet caravans still pass, and still make a profit on their merchandize—the consumer pays for all.

commerce, either first conceived the idea, or derived it possibly from the Egyptians, whom we must suppose to have had an intercourse with India whether history records it or not. The first historical account we have is, the trade of Ophir. The alliance between Hiram and Solomon was indispensable; for Solomon was master of Idumæa, and the Tyrians could establish themselves at Ezion Geber only by his permission and assistance. Solomon furnished the opportunity, and Hiram the ships; the profit accrued to the partnership; and if this voyage were made to Ophir in Arabia, where it is universally confessed there was an Ophir, even by those who search for Ophir in Africa and India; such a voyage would at least obviate all the exactions attendant upon a communication by land, and place Hiram and Solomon in the same situation as the Ptolemies stood, before a direct communication was opened between Berenikè and the coast of Malabar.

This rapid sketch of Oriental Commerce in all ages, as far as it can be traced upon historical evidence, is no digression, but an essential part of the work I have undertaken: my object has been, not merely to elucidate the Periplus by a commentary, but to trace the progress of discovery to its source; a subject curious and interesting at least, if neither useful or lucrative. But to know what has passed in remote ages is the purpose of all history; and to collect, from a variety of sources, such intelligence as may enable us to distinguish truth from falsehood, if it has not the dignity of history, has at least a claim to approbation from those who know how to appreciate the labour of research, and the fidelity of investigation. Much that has been said may be controverted in particulars, and yet be correct upon the whole. I am not conscious of any preconceived system

system in my own mind, but have raised a superstructure upon the foundation of historical facts: these I have not warped, in order to accommodate them to an individual opinion; but have followed them wherever they led. I claim little merit but in concentrating these to a point; and if the same evidence should not produce the same conviction on others, I should as readily give way to those who are possessed of superior information, as I should maintain my ground against those who are pretenders to the science.

XXIX. CONCLUSION.

IT is now necessary to bring this Book to a conclusion, in which the course of ancient navigation has been traced from the Gulph of Aila to the mouth of the Euphrates²⁴⁶, embracing the whole sea-coast of Arabia on its three sides. The author does not appear, from the internal evidence of his work, to have personally explored the eastern coast of the Red Sea, or the western shore of the Gulph of Persia: he seems to have come down the Red Sea from Myos Hormus to Okêlis; or perhaps from Leukè Komè, but to have touched little upon the coast till he came to the Burnt Island. On the southern coast of the peninsula we can trace him, at almost every step, to Fartaque, and to Ras-el-had; but from thence he seems, without entering the Gulph of Persia, to have stretched over with the monsoon, either to Karmania, or direct to Scindi, or to the Gulph of Cambay. At those points we find him again entering into those minute particulars, which bespeak the descriptions of an eye-witness; while, of the parts previous to these, he speaks in so-

²⁴⁶ Properly the Tigris.

transient a manner, as to create a belief that he writes from the report of others; but on this question it is not necessary to decide, the reader must determine for himself. On the two coasts of Arabia which he has touched but slightly, I have endeavoured to fill up the outline which he has sketched; and on the third side, where he has entered into detail, I have endeavoured to follow him, step by step, as minutely as I have been able. But if the interior of Arabia is a desideratum in Geography, the coast likewise is far from being accurately defined: no ships from Europe now visit it for the purpose of trade; and those which come from India to Mokha or Jidda, seldom touch upon the coast towards the ocean, unless to obtain provisions when in distress. What information may be obtained from the English cruisers which have lately been in the Red Sea, and were at one time preparing to fortify Perim in the Straits, is expected with a great degree of curiosity. Commodore Blanket, who was upon this service, was an officer of much science and great experience: he may have ordered surveys upon this coast, or some examination of it, which may clear up several of the difficulties which remain. In the mean time, I have made use of such lights as are afforded by the papers and journals of the officers of the East India Company, and which are collected in the work called the Oriental Navigator. Those who know the abilities and science of those excellent officers; will think their observations might have been sufficient for such an examination as I had instituted; but ancient navigators kept much nearer the coast, and noticed objects which are of small importance in the present state of the science. A minute particular often forms a characteristic of a port, a bay, or a shore, which we cannot hope to find in the common observations of modern

modern officers, nor elsewhere, unless when an actual survey has taken place. In the voyage of Nearchus, as my own knowledge increased, I constantly found a greater correspondence in his Journal with the actual state of the coast: I have not been * quite so fortunate in the present instance; nor do I think the author of the *Periplus* to be compared with the Macedonian commander, but still he is, as Vossius says, the only ancient author who has given a rational account of the countries or coasts he has described; and in this, if

we

ADDITIONS.

* Sir Home Popham's Chart of the Red Sea, which I obtained after the printing of this sheet, induces me to recall this assertion in some degree; for in that chart a plan of the harbour, and a view of the town of Aden, is given, which identifies it to demonstration with the place called Arabia Felix in the *Periplus*. "It lies," says the author, "twelve hundred stadia from the straits: it has very convenient anchorage, and affords excellent water; and it is situated just at the entrance of the bay, so as to remain distinct, and in some measure separated from the country along the shore." [Τῆ ἐν ἁλίῳ ἀποπέφυγον.]

Now, a reference to Sir H. Popham's Chart presents us with a peninsula, joined to the main by a very narrow neck, and adjoining to a river, which may afford the supply of water alluded to; and if Arabia Felix was placed on the western, instead of the eastern point of the peninsula, where Aden now stands, it would lie at the very entrance of the bay, as is specified: the difficulty, likewise, of approach to it from the adjoining coast, is sufficiently ensured by the narrowness of the neck. The distance from the straits is also accurate, within five miles.

P. 311.

CORRECTIONS.

P. 275. note 113. *Negra* is not *Nera*, but *Najeran*. See p. 277. note 118. And, according to the Roman Martyrology, St. Arethas was put to death at that place by Dunaan, a Jew, and king of the Homerites. His cruelty is noticed in the Koran, where he is called the Lord of the Fiery Pits. Elefbaas, the king of Abyssinia, revenged the death of Arethas, conquered the Homerites, and put Dunaan to death.

P. 293. The Straits of Bab-el-Mandeb are said to be six miles wide; but in Sir H. Popham's Chart they are only two miles.

P. 290. In the Table for the Coast of Arabia, I see with concern a considerable difference in the latitudes there given, compared with those of Sir H. Popham's Chart. I had followed the best authority I knew of; but they must now be considered as relative, and not real determinations.

P. 311.

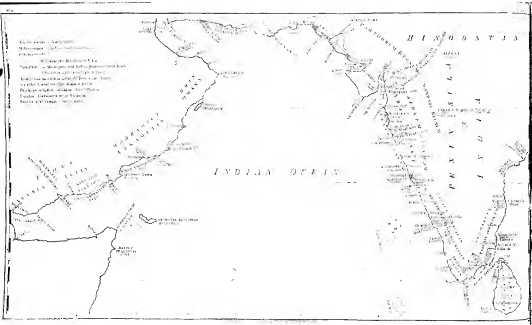
we are able to pursue his steps and elucidate his narrative, it is the performance of a service as gratifying to the curiosity of the Learned, as acceptable to the science of Geography.

ADDITIONS.

P. 311. Koródamon is supposed to be Ras-el-had, as it is the easternmost point of Arabia in Ptolemy; and its form would appear Greek, if we could find in that language *Κόρος*, or *Κόρος*, or *Κόρος*, equivalent to the Latin Corus or Caurus; for then it might be the point that terminates, or *subdues* the *westerly* monsoon, as Gardesin separates the two monsoons on the coast of Africa; but *Κόρος* is not the name of a wind in Greek; neither am I informed whether Ras-el-had separates the monsoons.

CORRECTIONS.

P. 311. lin. 20. The Bay Sachalites, mentioned here, looks as if the author of the Periplus had two bays of the same name, prior and ulterior, as Al Edrissi has; but there is no collateral proof of this.



THE
P E R I P L U S
OF THE
E R Y T H R E A N S E A.

I N D I A.

BOOK IV.

- I. *Introduction.*—II. *Course from Oman in Arabia up the Gulph of Persia, or to Karmania.*—III. *Omana in Karmania.*—IV. *Course to the Indus.*—V. *Scindi, Miunágara, Barbárikè.*—VI. *Cutch, Guzerat, Barugassa.*—VII. *Kingdom of Baétria, Tógara, Plítbana, Ozénè, Dekan.*—VIII. *Ariakè or Concan, the Pirate Coast, Akabaroos, Oopara or Súpara, Kalliena or Bombay, Semulla, Mandágara, Palaiapatmai, Melizéigara, Tóparon, Turannos-boas, Sefekréienai, Aigidii, Kainéitai, Leukè.*—IX. *Limúrikè or Canara, Naoora, Tundis, Nelkunda, Ela-Bákarè.*—X. *Kingdom of Pandion, XI. Hippalus, and the Monsoon.*—XII. *Balita, Cómarei, Kolkbi, Pearl Fishery.*—XIII. *Ceylon.*

I. **T**HE productions of India, and the Eastern World; are not sought after with greater avidity at the present hour, than they were by the inhabitants of Europe in the remotest ages, and all the nations which encircled the Mediterranean. Luxury this was called by the philosophers and patriots both of Greece and

Rome. But if every thing that is foreign is luxurious, there could be no commerce in the world; and if every thing which is not strictly necessary for the support of life be superfluous, thirst might be satisfied without wine, and food digested without the addition of a relish. In this view, the most ordinary accompaniments of the table should be discarded; and salt and pepper should be enumerated among the gratifications¹ of a sensual appetite. But if both are stimulants, still they are no less salutary than grateful; and no reason can be given why salt should be considered as sacred at the table of the Greeks and Romans, while pepper was condemned as the indulgence of a voluptuary; unless that the one was a domestic produce, and the other an exotic. But barbarians were not to be enriched at the expence of Europe, and the Roman world was not to be impoverished for the attainment of Oriental luxuries;—certainly not, if the sword could retain as easily as it acquires; but the wealth acquired by rapine must of necessity revert again into the channels of commerce; and commerce, whether it tends to the East or to the West, will impoverish every nation which has no native industry to replace its demands. Rationally speaking, all commerce consists in the exchange of superfluities; and luxuries are as easily introduced by dealing with nations nearer home, as with those at a distance. There is as little reason for declaiming against the Alexandrians who purchased pepper in India with the gold of Egypt, as against the Athenians, who exchanged the silver of Laureum for the salt of Sicily or Crete.

¹ Of pepper Pliny says, *Usum ejus adeo placuisse mirum est . . . sola placere amaritudine et hanc in Indos peti; quis illa primus experiri cibus voluit, aut cui in appetenda avi-*

ditate esurie non fuit satis . . . et tamen pondere emitur ut aurum vel argentum. Lib. xii. c. 14. Hard.

Pliny complains that the Roman world was exhausted by a drain of four hundred thousand pounds^a a-year, required for the purchase of luxuries, equally expensive as superfluous: what would he have said of the expenditure of our single island, consisting of two millions, for the purchase of tea only in China, without comprehending any other of our investments in the East? And yet this, and all the other luxuries we import, do not impoverish us; because we export on the one hand as we receive on the other; and, so far as we are the principal carriers between the Eastern and the Western world, we stand in the same situation as those ancient nations held, which were the medium between India and the Roman empire, but with an hundred times more trade, more industry and capital.

As Providence has varied the temperature of different climates, so has it given to man a predilection for such things as are not the produce^b of his native soil. The wildest tribes of America admit traders into their country, and allow them to pass through it with security; the Scythians^c likewise, according to the earliest testimony of history, suffered the merchants of the Euxine to penetrate farther on the east and north, than we can trace their progress by the light of modern information.

In civilized countries, this appetite increases in proportion to our

^a H. S. quingenties, near 403,645*l.* lib. vi. 23. quæ apud nos centuplicato veneunt, 40,364,500*l.*; and again, lib. xii. 18. the balance against Rome for the produce of India, Sese, and Arabia, millies centena millia festerium, 800,000*l.* tanto nobis delicis et feminæ constant. The prime cost of cargoes in India and China is now 3,000,000*l.* Rennell's Mem. Introd. p. 36.

^b Tanta mortalibus suarum rerum satietas

est, et alienarum aviditas. Plin. xii. 19.

^c See the Introduction to the Third Book of Herodotus, as a proof of the courage, industry, and abilities, of the Greek merchants, as well as of the extent of ancient discovery towards the north, relative to the Danube, the Euxine, the Palus Mæotis, the Don, and the Wolga, illustrated by the commentary of Rennell, and displayed with much learning and accuracy of investigation.

knowledge,

knowledge, and the opportunity of procuring the variety which we covet. The indulgences of the palate are among the first stimulants of this emotion; and second to these is all that can delight the eye, or the mind, by novelty, beauty, variety, intrinsic or imaginary value. Excess of indulgence, avidity of possessing, profusion in acquiring, and wantonness in using, this variety of foreign articles, are both vicious and luxurious; but where to fix the limit between the use and the abuse, is a question more difficult to determine than we are aware of. Pliny condemns, above measure, the vanity of purchasing pearls and precious stones for the ornament of the Roman women; while he extols the works of art in sculpture, painting, and engraving, with all the enthusiasm of an admirer. But if every thing is luxurious that is not necessary to our existence, the ornamenting of a house is certainly not more useful or more rational than the decoration of a woman. And if the works of art are a specimen of human abilities, pearls, diamonds, and precious metals, are the gift of the Creator: the things themselves are indifferent; the temperate^s use of them embellishes life, and it is only the abuse of them which becomes avarice, prodigality, or folly.

The activity produced by the interchange of superfluities, is the glory of commerce, and the happiness of man; but if its merits were to be fixed by the standard of utility alone, very narrow would be the limits within which the defence of it, by its warmest advocates, must be confined. Use we can discover none in the burning of tin foil before an idol in China; and yet this practice of a nation at one extremity of the world gives bread to thousands at the other,

^s The poet understood this better than the philosopher, when he said, *Nullus argento color est, nisi temperato splendet usu.*

supports the mariner during a voyage of eleven thousand miles, and procures for Britain, by means of a native metal, what she must otherwise have purchased by an imported one.

Moral and philosophical reasoning, however, upon this question, has had little weight in determining the general practice and habits of mankind. The prevailing taste implanted in our nature has made the pepper of Malabar, and the cinnamon of Ceylon, articles of request, from the time of Moses to the present hour; the finer spices of the Moluccas grew equally into favour, in proportion as they became known; and the more modern demand for the tea of China, and the sugar of the East or West Indies, will never cease, but with the impossibility of procuring either of those articles, by the destruction of all intercourse between the several nations of the world.

It has been shewn in the preceding pages, how the precious commodities of the East were procured, from the earliest periods that history can reach; and no revolutions of empire, either in the ancient or modern world, have ever been able to stop all the means of communication at once: the channels obstructed in one direction, have been opened in another. Tyranny, avarice, and extortion, have defeated their own ends: the monopoly of one country, as it grew intolerable, was transferred to others that were less oppressive; fluctuating generally between the Red Sea, and the Gulph of Persia; and driven sometimes to the North, by the exactions common to both. Such was the fate also of the last monopoly between Egypt and Venice, which, by its enormity, drove the Portuguese to the discovery of the communication by sea; and this channel once opened, can never be closed; the whole world are partakers in the benefit;

benefit; and Britain has the pre-eminence, only because she has the greatest industry, the largest capital, and the superiority of naval power.

It is a political consideration, awful to contemplate, and difficult to discuss, but still necessary to keep constantly in view, when we reflect how deeply all the interests of our country are concerned in the continuance of the pre-eminence we at present enjoy. Our possessions in India are almost become a part of our existence as a nation: to abandon them is impossible; to maintain them—a perpetual struggle with the native powers, and the powers of Europe to support them. It requires all the vigilance of government, and all the vigour of the controuling power, to take care that the natives should not be discontented under our empire; and that the nations of Europe should not be outraged by our approach to monopoly. These considerations, however, are totally distinct from the commerce itself, and totally foreign to the object of the present work: I touch them only as they arise, and return with pleasure to the humbler office of a commentator on the Periplus.

II. COURSE FROM OMAN, IN ARABIA, UP THE GULPH OF PERSIA, OR, TO KARMANIA.

WE have now our choice of two courses; one up the Gulph of Persia to Bahrein and Oboleh, and the other across the open sea from Arabia to Karmania; where we arrive, after a passage of six days, at the port of Omana. This port manifestly takes its name from the province of Oman in Arabia, and was doubtless a colony of Arabs, established on the coast opposite to their own, for the purpose

purpose of approaching nearer to Scindi and India, or as an intermediate port on their voyage outward, and homeward bound. Whether the merchant, whose journal we are examining, ever went up the Gulph, or touched at the port of O'mana, is highly problematical. If he was there, he has left us but slender particulars of the place; but there are some circumstances which induce a persuasion, that he passed from Arabia, either to the Indus or Barugaza, at a single stretch; for, in the first place, he has fixed O'mana in Persis, which must of necessity be either in Karmania or Gadrosia; and, added to this, his account of Oraia, in the latter province, is too obscure to prove any intimate knowledge of the country.

III. O'MANA IN GADROSIA.

O'MANA we recover a trace of in the Kombana⁶, or Nommana, of Ptolemy; in the province of Gadrosia⁷, and in the bay he calls Paragon, to the eastward of Karpella⁸, or Cape Bombareek. I have proved, in the Voyage of Nearchus, and in the former part of this work, that the Arabs had visited this coast previous to all the navigation of the Greeks; but this O'mana is not mentioned by Nearchus, and was therefore a colony established between his time and the date of the Periplus. Its immediate representative cannot be now ascertained; but its relative situation may be assigned from

⁶ Kombana, in the Greek copies; Nommana, in the Latin.

⁷ Pliny makes it a city of Karmania: *Oppidum O'mane quod priores celebrem portum Carmanie fecere.* Lib. vi. 28. Ptolemy does the same; but Nearchus commences Karmania

only at Dagaia.

⁸ Ptolemy sometimes writes this Karpela, which, I think, signifies the Pierced Mountain, such as Bombareek is. The Latin text is Karpella.

Ptolemy, between the River⁹ Iikim and Muckfa; so that it must be in Gadorfia, and not many leagues east from Cape Jask.

There is a regular intercourse between Barugaza and this port, which extends also to Oboleh, at the head of the Persian Gulph. The imports consist of

Χαλκῶν,	-	-	-	-	Brafs.
Εύλων Σαγαλίων ¹⁰ ,	-	-	-	-	Sandal Wood.
Δοκῶν,	-	-	-	-	Wood squared; perhaps Δοκῶν Σανδαλίων.
Κεράτων,	-	-	-	-	Horn.
Φαλάγγων ¹¹ σησαμίων,	-	-	-	}	Ebony in round sticks.
Φαλάγγων Ἐθειῶν,	-	-	-		

Except ebony and sandal wood, there is nothing appropriate in this cargo.

But it is added, that a particular species of vessels called Madarátè were built here for the Arabians, the planking of which was sewed together without nails, like those already described on the coast of Africa. Vessels of this kind, called Trankies, and Dows, are still in use; and they were formerly built in Africa or Gadorfia, we may conclude, because Arabia furnishes few materials for the construction of ships.

The only import from Kanè was Frankincepsè; while both¹² from Oboleh and Omana great quantities of Pearl were exported, but of an inferior sort, to Arabia and Barugaza; and besides this,

⁹ That is, the Sarus and Dagaïm.

¹⁰ Σαγαλίων, easily corrupted from Σανδαλίων.

¹¹ Σησαμίων is evidently a corrupt reading.

Wood of some sort is meant, but Isfamus is a herb. Salmstius tried to explain it, but left

it undetermined. Σησαμίον ξύλον are, however, mentioned by Cosmas.

¹² Από ἑκατέρων τῶν λιμενῶν, from either port, which I apply to Oboleh and Omana, because they were before joined by ἀμφότερα ταῦτα λιμένα.

Πορφύρα,	-	-	-	-	Purple.
Ἰματισμὸς ἐντόπιος,	-	-	-	-	Cloth of native manufacture.
Οἶνος,	-	-	-	-	Wine.
Φοῖνιξ πολὺς,	-	-	-	-	Dates, in large quantity.
Χρυσὸς,	-	-	-	-	Gold.
Σώματα,	-	-	-	-	Slaves.

After leaving the district of O'mana, the country " which succeeds belongs to another government; and there is a bay which is called the Bay of the Terabdi, formed by the coast trending inwards, in the middle of their territory.

IV. COURSE TO THE INDUS.

THIS Bay of the Terabdi answers to the Paragōn of Ptolēmy, although there is in reality no bay on the coast. No extent is given to that of the Periplus; but the Paragōn of Ptolemy extends from Karpella to Alambateir, or Guadel. Doubtless this is an error arising out of the form of the coast upon approaching the Gulph of Persia; and if we suppose the ancient course of the passage from Arabia to Karmania to have been made across, without approaching the Straits, the apprehension of such a bay is natural. This is the passage indicated by the Periplus, six days in extent; and may perhaps have misled the author, as well as others, who followed the same course.

In or near this bay, we are informed that there is a river which admits vessels, and a small port at the mouth of it called Oraia.

¹¹ Μετὰ δὲ τὴν Ὀμαντικὴν χώραν ἡμῶν, ἢ παρ' ἑδὼν παράκτωσι [χώρα] βασιλείας ἑτέρας, καὶ κλίτος τῆς Τεραβδίου λεγόμενος, ἢ κατὰ μέρος ἕς τὸν κάλιτον παρανατίου. χώρα is either omitted or understood; and is, I believe, the nominative to παρανατίου: but there is some corruption of the text, or something not easily understood.

The capital of the district is inland, at the distance of seven days journey, where the king resides. The country produces plenty of corn, wine, rice, and dates; but on the coast nothing except bellium¹⁴.

These circumstances happen to coincide with an account given to Lieut. Porter, when he was at Chewabad¹⁵, on this coast; for a coast without produce he experienced, and the natives told him of a city seven days inland, large and walled: if therefore we knew where to fix the limits of our author's bay of Terabdi, we should have something to direct us to a position. The river seems like the Tanka Banca, or White River, of the charts; while Oraia bears a resemblance to the Oritæ of Nearchus; but to these it is hardly related, as the journal certainly intimates a great extent of the coast between Oraia and the Indus; while the Oritæ of Nearchus are within fifty leagues of that river. We find no Oraia in Ptolemy; and if we are still in Gadorfia, there is no place seven days inland which would answer to the Oraia of our author, but the Phoregh, or Poora, of Arrian. But on the whole of this, as we have so few data to guide us, it is safer to suspend our judgment than to decide.

On the coast which follows, and which may be supposed to be the tract between Guadel and the Indus, the description accords much better with the reality¹⁶; for we are told, that¹⁷ there is a

vast

¹⁴ A gum. See Elij. xii. 9.

¹⁵ Charbar. Lieut. Porter's Memoir, p. 8. is Mr. Dalrymple's Collection.

¹⁶ This description answers much better than that of Ptolemy, who has one line of coast from Alambateir, or Gusedel, to the head of the Bay of Kutch.

¹⁷ Μεγάλη δὲ ταύτης τὸ χεῖμα, ἢ δὲ τῆς ἡμέρας διὰ

τὸ βάθος τῶν Κόλπων ἐκ τῆς ἀκατολῆς, ὑπερκειμένης, ἡδὲ χεῖμα παραθαλάσσια μέρη τῆς Σουδίας, καὶ ἀπὸ τὸν κείνου τὸν βορῆον. This passage, ill constructed as it is, I trust I have rendered faithfully: ὑπερκειμένης, I imagine, expresses *encircling to a vast extent*; applied to an arm, it means, *out-flanking the whole*: ἀπὸ τῆς ἀκατολῆς may be said of a bay, the head of which is to the east, and

vast sweep of the shore round the indenture of the bays, which have an inclination to the East; and, after passing these, a low tract of country towards the sea, called Scythia, lies on the north of the course, and which extends to the river Sinthus.

These bays are evidently meant for those that are formed by the Capes Possem, Arraba, and Monze; and the bay immediately preceding Monze has a large sweep, to which, with the assistance of imagination, we may give a direction to the East, as its inmost curve is somewhat to the east of Cape Monze. It is added, that during the course from Monze to the Indus, the land is low, and lies to the north of the vessel that is passing to the East. This tract is now called Scindi; and the Scythia of the Periplus, wherever it occurs, is the actual Scindi¹⁸ of the Oriental and modern geographers. Why the author writes Scythia, and why Ptolemy finds an Indo-Scythia in this country, has already been conjectured in the Voyage of Nearchus; where it was observed, on the authority of the Ayeen Acbari, that the country is divided between the Hendians and Setlians. I am myself persuaded that this distinction is

and the opening to the west. But if we read *ἀπὸ τῆς ἀνατολῆς ἐς τὴν ἀνατολήν*, the sense will not be very different, but the range of the coast more difficult to comprehend.

¹⁸ The distinction in Al Edrissi and the Oriental geographers, is Scind and Hind; that is, Scindi and Hindostan. Scindi comprehends the country on both sides the Indus; and the Indus itself is written Scind or Sind, with an S, which is preserved in the Sinthus of the Periplus—in the Sindi and Sindocanda of Ptolemy. The Indus acquires another name while it continues a single stream; for between Moultan and Tatta, it is called Mehran

Mekran, and hence Kutch Mekran, the country on the coast west of the Mehran; and from Kutch Rennell derives Gadrusia. There is likewise another Oriental distinction, between Hind and Sin; in which Hind means Hindostan, and Sin, or Chin, Cochin China: Chin is also written Cheen; and Ma-Chèen, Great Cheen, means the country we now call China.—I ought not to dismiss this note without observing, that the Mehran of Ebn Haukel is the Chin-ab, or Akéfinea: he is, in this, at variance with other Oriental writers; but his authority stands high.

original; and that it is the cause of the error which has been adopted by Ptolemy, and other ancient geographers: but if this opinion is rejected, I should then say, that Scythia is a corruption of Scynthia, and that Scynthia is as precisely Scindi, as Sinthus is the Indus.

V. SCINDI, MINNÁGARA, BARBÁRIKĒ.

I SHALL collect the several particulars relating to Scindi, which lie dispersed in other parts of the Journal, to this point; for it is natural to conclude, that from the time of Alexander, and the publication of the Voyage of Nearchus, the Greeks had always considered Pátala as the Port to which they were to direct their views, in order to obtain the precious commodities of the East. I have every where allowed that, while the mass of the trade was confined between Egypt and Sabéa, single ships, or individual merchants, might have reached India from the ports of the Red Sea. It is natural also to suppose, that the subjects of the Seleucidæ were directed by the same inducements, while the Syrian Monarchy was in its vigour,—while it possessed Susiana, Persis, Karmania, and the whole eastern side of the Gulph of Persia, and before it was weakened by the revolt of Parthia, Bactria, and the country at the sources of the Indus. The celebrated embassies likewise of the Syrian monarchs to Sandrocottus and Alitróchades, the sovereigns of Hindostan, probably embraced objects of commerce as well as empire; for those who found their way to the Ganget, could not be unacquainted with the profits to be derived from the commerce of the Indus.

The first¹⁹ ship that coasted round the peninsula of Arabia from the Red Sea, or that retraced the steps of Nearchus back again from the Gulph of Persia, would naturally direct its course to Pátala and the Indus. Here it was known from history that the productions of the East were to be obtained; and here the trade, which passed in the earliest ages between all the countries at the sources of the Indus and the coast of Malabar, must always have fixed its centre. As the Greeks and Romans increased their knowledge, and finally became acquainted with the monsoon, they made their passage to India direct; but the voyage to the Indus was not yet abandoned in the age of the Periplus, nor probably for several ages later. Pátala our merchant does not mention, but there were evidently two marts of importance still on this river: one, towards its issue, called Barbárikè; and another, somewhere in or near the Island of Behker, higher up, named Minnágara, which corresponded with the Sogdi, or Musikanus, of the Macedonians, and which has been replaced by the Behker (Manfoura) or the Loheri of modern Scindi, or any one of the capitals occupied by different invaders in the various revolutions of this country.

Minnagar²⁰, or Minnágara, perhaps the Binágara of Ptolemy, is described as the capital of the country, and the residence of a sovereign, whose²¹ power extended in that age as far as Barugaza, or

¹⁹ Large ships from the Indus, Pátala, Persia, and Kurmania, came to Arabia as early as the time of Agatharchides, and most probably many ages prior, before there was any history to report the fact. I suppose these vessels to have been chiefly navigated by Arabians, because we can prove the settlement of that people on the coast of India from the time that history commences. See Periplus supra, p. 36.

²⁰ Minnagar is the fortress or city of Min, like Binágar, Tattanagar, &c.

²¹ Maghmoed the Ghaznevide, coming down the Indus, made his first inroads into Guzerat; and there seems to be a general connection between this province and Scindi, for the language is the same from Surat to Tatta, as we learn from Paolino, p. 262.

Guzerat. The government was in the hands of a tribe of Parthians²², divided into two parties; each party²³, as it prevailed, chose a king out of its own body, and drove out the king of the opposite faction. This sovereign, however, must have been of consequence, or the trade of his country very lucrative to the merchant, as appears by the presents necessary to ensure his protection. These were,

Βαρύτητα ἀργυρώματα,	-	-	Plate of very great value.
Μουσικά ²⁴ ,	-	-	Musical Instruments.
Παρθένοι εὐνοεῖς πρὸς παλλακίαν,	-	-	Handsome Girls for the Harem.
Ὀῖνος διάφορος,	-	-	The best Wine.
Ἰματισμὸς ἀπλῆς πολυτελής,	-	-	Plain Cloth, of high price.
Μύρον ἔξοχον,	-	-	The finest Perfumes, or perfumed Unguents.

* These articles are all expensive, and the best of their kind. The profits upon the trade must therefore have been great; but if Pliny's account be true, that every pound laid out in India produced an

²² Βασιλευσας δὲ ἐπὶ Πάρθων, συνεχῶς ἀλλήλους ἐδάκνυον. I should have been glad to have interpreted this passage as relating to the Parthian empire, which was then in its vigour, and might have extended itself eastward to the Indus; and, by applying ἀλλήλους to Hindoos and Parthians, the expulsion of each, alternately, from Minniagar, would have resembled the fate of Candahar in these latter ages. But it would then have been written ἐπὶ τῶν Πάρθων, the Parthians, the Parthian empire; and Πάρθων ἀλλήλους ἐδάκνυον must be, Parthians driving out Parthians.

²³ If the governing power were Parthians, the distance is very great for them to arrive at the Indus; may we not, by the assistance of imagination, suppose them to have been

Aghwans, whose inroads into India have been frequent in all ages. That the government was not Hindoo is manifest; and any tribe from the West might be confounded with Parthians. If we suppose them to be Aghwans, this is a primary conquest of that nation, extending from the Indus to Guzerat, very similar to the invasions of Mahmood the Ghaznavide, and the present Abdallees or Durranees. The Belodotches, who have infested this country from the time of Alexander to the present hour, are a tribe of Aghwans; but the whole of this is suggested as a mere conjecture.

²⁴ Μουσικά in Greece would have a different sense; but I follow Hudson; I think he is correct, considering the country.

hundred at Rome, greater exactions than these might easily be supported.

The precise situation of Minnágara it is not easy to determine; but if it be the Minhavareh of Al Biruni³⁵, inserted in De la Rochette's Map, I conclude it is also the Manhaberè of Al Edrissi. Al Biruni was a native of the country, and consequently his authority is great; and it is to be presumed that De la Rochette follows him as a guide, in placing Minhavareh on the Indus, between the Island of the Behker and the Delta: Al Edrissi places his Manhaberè at two stations, or sixty miles, from Dabil; and Dabil, he adds, is three stations, or ninety miles, from the mouth of the Indus; that is, it is at the head of the Delta, and Manhaberè sixty miles higher. But he adds, that it is towards the west, which causes some confusion, unless he means by this that it is in the Island of Behker, which he extends likewise to the west. But if Al Biruni and Al Edrissi can be reconciled, a Minhavareh, sixty miles above the Delta, agrees perfectly with the Minnágara of the Periplus, and sufficiently with the Binnágara of Ptolemy; but not with *his* Minnágara, for that is in Ouzerat, and he has another in the Bay of Bengal. D'Anville³⁶ supposes Minnágara to be the same as Mansoura, and Dabil to be at the mouth of the Indus, instead of being at the head of the Delta, where Al Edrissi places it; but we approach so near a conclusion by means of the two Oriental geographers, that I think it may be depended on. The journal says, that the ships lay at Barbarikè, which was a port on the middle branch of the Indus, near the sea, and facing a small island; that Minnagar was beyond it inland; and that the whole cargo was carried up to that

³⁵ So called from the place of his residence. Abulfeda in Melch. Thevenot, vol. i. p. 9: Al Birun, between Debul and Mansura.— ³⁶ Antiq. de l'Inde, p. 34.

metropolis by the river. The representative to supply the place of such a capital would be the modern Loheri, at the southern termination of the Isle of Behker, which, a century ago, was a place of considerable commerce, and gave name to the two principal branches of the Indus, east and west, as they divide to embrace the Delta: the eastern is styled Bundar-Loheri, and the western, Loheri-Bundar²⁷.

One circumstance most remarkable is, that the port of Barbarikè is placed on the middle channel of the seven; and the other six are said to be too shallow, or too marshy, to be navigable. This is contrary to the report of Nearchus, and to our modern accounts; for Alexander navigated the two extreme²⁸ channels, east and west; and they were both navigable within these fifty years. Whether the government of Minnagar cleared and opened the centre one, can only be conjectured; ships did not go up it, and what water was required for the boats that carried up their lading, depends on the nature of the vessels which were employed. The Ritchel River, and that which issues at Scindi Bar, may either of them have been navigable in former times, or in different ages, according to the interest or situation of the different governments which may have prevailed. Rennell²⁹ still speaks of the Ritchel River as the largest; and without calculating whether it is precisely the central issue of the seven, here Barbarikè might be placed, if other circumstances should be found

²⁷ Bundar Lori, the Eastern Channel, is called Nulla Sunkra in the treaty of Nadir Shah. See Nearchus, p. 529.

²⁸ The western channel, which conducted to Lori-Bundar and Tatta, was the only one frequented by the English. This is now either impracticable, or rendered unsafe for strangers

by the government; for Tippoo Sultan's emissaries to the Abdollec Shah did not go up the Indus, but landed at Caranchy or Crotchey. See his Letters and Orders, in the Asiatick Ann. Register.

²⁹ Memoir, last ed. p. 180.

to correspond. It is some proof of the fact, that Ptolemy has placed his Barbari in the Delta, convenient for the third and fourth channel; but his Barbari does not answer to the Barbárikè of the Periplus; it is above his Patala, while the Barbárikè of the Periplus is at the mouth of the channel, and close to the sea. It ought likewise to be observed, that this term is not the native name of a port, but a Greek epithet³⁰, implying, the Barbaric Port, the Barbaric Country, derived, if the conjecture may be allowed, from the merchants finding here those articles which they had formerly purchased at Mofyllon, on the original Berber coast of Africa, where there is a Barbora to this day, and from whence many of the Oriental articles³¹ in the market of Alexandria were called Barbarine and Barbarick.

The

³⁰ Ἰπποπόριον Βαρβαρικόν, ἤματι Βαρβαρικόν. It is a most extraordinary circumstance, which I am informed of by Mr. A. Hamilton, that Barbara has precisely the same meaning in Sanskreet, as it has in Greek, Latin, and English; all manifestly deducible from Egypt. A term of reproach synonymous with *savage*.

³¹ I submit the following conjecture to the natural historians, without any assertion of its truth, or sufficient means of ascertaining it:—Rhubarb is written *Rha Barbarum* and *Rha Ponticum*; and as the best rhubarb always came out of Eastern Tartary, the first course by which it would reach Greece would be by the Wolga, the Caspian, and the Euxine. Now *Rha* is the native name of the Wolga; and *Rha Ponticum* would be the drug that came by the *Rha*, and Pontus, into Greece. But another conveyance of this drug would be out of Tartary to Cabul, and from Cabul down the Indus to Scindi, and to this port of Barbari, or Barbarikè. If then the name of

the drug *Rha* was already received in Europe, would not the *Rha* procured in Scindi be called the *Rha Barbarum*?—I have not found this drug in Pliny, but suspect it to be his *Rhacomia*, xxvii. 105. very dubiously described; and I know that *Rha Ponticum*, and *Rha Barbarum*, convey now ideas not consonant to this explication; but still it may be the true one, originally: the ground for the adoption of this opinion is derived from Salmastius. Bayer observes, that *Rha* signifies a river in the language of the natives. Hist. Baët. p. 162. from Scaliger, Doct. Temporum. That *Rha* the plant, derived its name from *Rha* the river, we have certain information in Ammianus Marcellinus: *Hæc, Rha vicinus est amnis in cujus superciliis ejusdem nominis, gignitur radix proficiens ad usus multiplices medicinarum.* Am. Mar. p. 390; and, because this root was brought out of the Euxine, he confounds the *Rha* with the Don, and supposes it near the Palus Mæotis. The rhubarb brought into India

The articles imported at Barbarikè are,

Ἰματισμὸς ἀπλῆς ἱκανός,	-	-	-	Clothing, plain, and in considerable quantity.
Ἰματισμὸς νόθος ἔ πολὺς,	-	-	-	Clothing, mixed.
Πολύμιτα ²² ,	-	-	-	Cloth, larger in the warp than the woof.
Χρυσόλιθον,	-	-	-	Topazes.
Κοράλλιον ²³ ,	-	-	-	Coral.
Στύραξ,	-	-	-	Storax.
Λίβανος,	-	-	-	Frankincense.
Ἐγγυαλὰ σκεύη,	-	-	-	Glass vessels.
Ἀργυρώματα,	-	-	-	Plate.
Χρῆμα,	-	-	-	Specie.
Οἶνος ἔ πολὺς,	-	-	-	Wine.

The Exports are,

Κόστος,	-	-	-	Costus. A spice.
Βδέλλα,	-	-	-	Bdellium. A gum.
Λύκιον,	-	-	-	Yellow dye.
Νάρδος,	-	-	-	Spikenard.
Λίθος καλλιμαῖνός,	-	-	-	Emeralds, or green stones.
Σάπφειρος,	-	-	-	Sapphires.
Σηρικὰ ²⁴ δέρματα,	-	-	-	Hides from China.
Ὅθνια,	-	-	-	Cottons.

India in modern times, came by the caravan which passed between Cabul and Cashgar, three months journey from a mart called Yar Chau, but ultimately from China. See Finch in Purchas, vol. ii. p. 434.

²² Vestis Polymitos. Vestis filis versicoloribus contexta. But dubious.

²³ At Calicut they took gold and silver alone, or else coral, when the Portuguese came there first. Cada Mosto, p. 58. Grzyneus.

²⁴ This is very dubious, and occurs no where else.

Νῆμα Σηρικόν,	-	-	-	Silk Thread.
Ἰνδικόν μέλαν,	-	-	-	Indigo, or Indian ink?

Such are the different articles of export and import; and the author observes, that in order to reach this port in the proper season, the ships should leave the harbour of Berenikè in Epiphi, or July; adding, that the passage down the Red Sea is difficult at so early a period, but that a favourable wind (that is, the monsoon) is more easily obtained after you have passed the straits, and the voyage more expeditious³⁵. This is in harmony with the account of Pliny, who informs us, that the passage down the gulph took up thirty days; a long time for a passage short of five hundred miles, and which proves, not only the difficulty of the navigation, but the unskilfulness of the navigators. Upon approaching the mouths of the Indus, the sea is white; and the sign of land before it is seen, is a multitude of snakes, called Graai, floating on the surface. This circumstance, which seemed fabulous to the ancients, and some of the moderns, is now known to be a fact that takes place down the whole coast of Malabar, as well as on the approach to the Indus: it is imputed to the rains of the monsoon washing down these animals³⁶ out of the rivers. I shall here also take occasion to do justice to Agatharchides, for condemning his report of a whiteness in the sea off the coast of Arabia. I am not apt to suppose every extraordinary report false, in authors ancient or modern; and I have pleasure in acknowledging the veracity of Agatharchides in this instance, on the authority of Corsali³⁷, Thornton, and Terry; Corsali's account,

³⁵ Δυσπρόβητος μὲν, ἐπιφορτώτος δὲ . . . καὶ ἀντοματώτερος ὁ πλοῦς. Ἐπίφορος is particularly applied to winds: ventus secundus. Ἐπίφορος, in this passage, I have omitted, and cannot render.

³⁶ Paolino.

³⁷ " You have twenty leagues of white sea " between Socotra and Arabia." Dalrymple's Collection, p. 57. " The sea near Socotra " is

greater and the less, both shoal, with violent and continual eddies extending far out from the shore; so that vessels are often aground before they see land, or are hurried away by the eddies and lost. The shore begins to curve as soon as you leave the Indus⁴⁰; first towards the east, next in a southerly direction, and, finally, back again to the west; till it reaches the promontory Barákés, which shuts in seven islands with its projection. This cape represents, with sufficient exactness, the Jaigat point of our charts, and its islands within, which are at this day the retreat of a piratical tribe, visited by the English within these few years⁴¹.

If a vessel approaches this point, her only chance to escape, is an immediate alteration of her course; for if she is once well within it, it is certain destruction. The sea rolls in here, a large and heavy swell, with great violence; forming eddies and whirlpools in every direction. The soundings likewise vary from deep to shoal, or rocky, without warning; so that if you attempt to anchor, the cables are cut or rubbed by the foulness of the bottom. But the sign of approaching this bay, is another species of serpents, floating on the water, larger, and of a black colour; while those that are met with at Barugaza, and lower down, are green, with a golden hue, and of a smaller size.

From Barákés, and the Bay of Éirinon, the next in succession is the Bay of Barugáza, which terminates [south-west] on the bound-

⁴⁰ *Ἀπὸ τοῦ ὀπίου*, the last station is Barbariké. The text seems to give the name of Barákés to the coast as well as the cape. D'Anville finds here a tract called Barfeti, the Baraké of Al Biruni, p. 83.

⁴¹ In 1799. See Indian Reg. 1800, Chronicle, p. 3. The district is called Goomtee:

the pirates are said to have been driven from Kutch, between the Indus and the head of the gulph, and to have settled on the opposite shore of Guzerat, since called Little Kutch. They are the Sanganiens of our early navigators, the Sangadiz of Nearchus.

dary of Ariakè⁴², the territory of Mámbarus, who is sovereign also of all India⁴³. Inland, on the north, the district of Barugáza joins to Scindi, and is subject to the Parthians of Minnagar; and the sea-coast, from Scindi towards Guzerat, is called Surastrênê. It produces abundance of corn, rice, oil of sesamum, ghee, and cotton for ordinary manufacture; and the cottons of Minnagar are carried to Barugáza for exportation. The natives are black, and men of large stature, and the herds of cattle in the country are numerous. Surastrênê⁴⁴ must therefore be the Kutsch of our modern charts, the capital of which is Boogebooge; a tract wholly inhospitable, and now never visited; so that we have no opportunity of knowing⁴⁵ whether it answers to the account of the Periplus or not.

The passage from Barbarikè to Barugaza is [not made along shore by the Bay of Eírinon and Barákes, but] strait across to the headland of Papíka⁴⁶, which lies opposite to the harbour of Barugáza, and in the neighbourhood of Ástra Kampra and Trápera. This

⁴² Ἡ πρὸς τῷ Ἀριακῷ χερσὶ τῷ Μάμβαρῳ βασιλείας ἔρχη, καὶ τῶν ἄλλων Ἰνδικῶν ἄσων. The beginning of Ariakè, marks the distinction; for Barugaza was subject to Minnagara. Ἀριανή; for Ἀριακῆς, is the undoubted correction of Stuckius. Surastrène; Mr. Hamilton interprets it Sri-rastra, the *Lord of Prosperity*. Jaggat, the *World*.

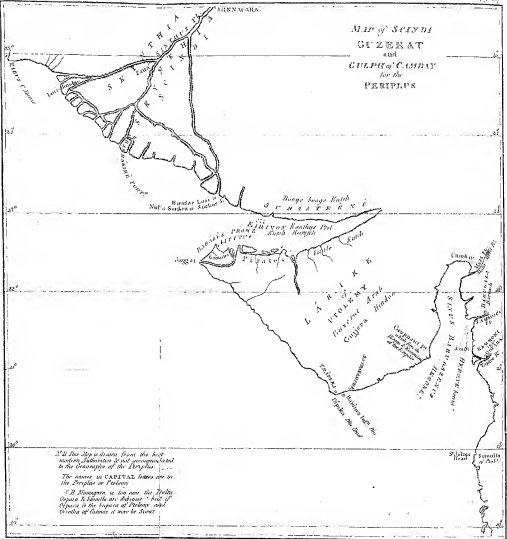
⁴³ *All India* is a large expression; but it cannot comprehend more than the northern part of the peninsula of India, in opposition to Scindi and Guzerat, in that age, under the Parthians. Such a king as the Balahara of Al Edriffi (p. 62.) would correspond sufficiently; for Balahara signifies *King of Kings*, according to his interpretation; but Mr. A. Hamilton says it implies, the *Overtrower of Armies*.

⁴⁴ Surastrênê is not so absolutely confined in the text to Kutsch, that it may not extend to the coast of Guzerat also; but in allotting it to Kutsch only, we unite the account in the Periplus with the geography of Ptolemy; and the text itself is so corrupt that we are utterly at a loss; for it says, the inland part of Scythia touches on Iberia. Iberia is certainly a false reading, but what ought to be substituted for it is dubious: Hudson, or Stuckius, read Σαβυρία, from Ptolemy; and Ptolemy has Περσικόν, καὶ ἡ ὑπερχείριστος αὐτῆ; Σαβυρία, p. 172.

⁴⁵ Orme says, it furnishes a good breed of horses, which implies pasture for other cattle also. Hist. Fragments, notes, p. 107.

⁴⁶ D'Anville finds here a Soto Pappera, for Ásto Papíka; but upon what authority he does not mention. Antiq. del Indé, p. 83.

MAP of SCINDI
GUZERAT
and
GULPH of CAMBAY
for the
PERIPLUS



*This Map is drawn from the best
modern Authorities & not corresponded
to the Geography of the Periplus*

*The names in CAPITAL letters are in
the Periplus or Ptolemy*

*The Name Surat is less than the Indian
Guzerat & Bombay are Arabian. And of
Perplus is the Empire of Ptolemy and
Guzerat of former it may be found*

cape forms the western point of the Bay of Barugáza, at the extremity of which lies the Island of Baiônès⁴⁷; and from this point the coast runs northerly till it reaches the head of the gulph; there it receives the river⁴⁸ Mais [and then returns again south to Barugáza itself, and proceeds, in the same direction, to the main coast of the peninsula.] It is added, that the passage from Scythia to Baiônès is three thousand stadia, which agrees sufficiently with the actual distance of about three hundred miles.

Among all these particulars, there is not a single circumstance which does not accord⁴⁹ with the actual nature of the voyage at the present day, from Scindí Bar to Diu Head; for Baiônès⁵⁰ is Diu⁵¹; and from Diu, the coast runs N.E. to the head of the Gulph of Cambay, where we find the River Mahi, as the representative of Mais. From Mahi the direction of the shore is south to Baroache, the Barugáza⁵² of the journal on the Nerbudda, which the Periplus calls the Lamnaius, and Ptolemy the Namáduš⁵³, still written Narmada in some of the Hindoo books. The other part of the account, which at first seems to intimate that the bay is thirty miles across,

⁴⁷ Baiônès is Diu; and, if I understand it rightly, this island, and the coast towards Jaigat, is the Cheimaeran of Marco Polo: in his time, all the trade here was in the hands of Arabs.

⁴⁸ Το δὲ ποτὶ ἰσχυράτος ῥέματος μέγιστος ποταμὸς ὁ Ἀργάμας; Mais.

⁴⁹ On peut dire ainsi, que ce qu'on acquiert de notions par le Périples, est satisfaisant et positif. D'Anville, *Antiq. de l'Inde*, p. 86.

⁵⁰ I conjecture that Diu is the Ávi Caman of Al Edrissi, because he reckons one day and a half's sail from Cambay to Ávi Caman, and two from Ávi Caman to the Indus. They are coursed far too long for an Indian ship,

but the central point seems relative. He speaks magnificently of the trade of Cambay in his time; and extensive it continued, till the greater proximity of Surat to the open sea attracted the trade to that port.

⁵¹ Diu is *Dive*, the Isle. Diu Head is Pa-pika, the cape immediately west of Diu.

⁵² Barugáza signifies the *Water of Wealth*, from Bari, *water*, and Gaza, *wealth, riches, treasure*, or *treasury*; the same in Sandicret as in Persic. Mr. A. Hamilton.

⁵³ *Asiatick Researches*. Is it not Nahr-Bhudda? or Nahr Mabdeo? The Soane, its kindred stream, is called Soane-Budda.

will perhaps bear a more favourable construction, which I submit to the judgment of the reader: ["Upon arriving] at this³⁴ gulph, "those who are bound to Barugáza [keep clear of the land on "either side] and pass up the open channel for thirty miles, leaving "Baiônès on the left, till it is scarcely visible in the horizon, [their "course is] then east to the very mouth of the river that leads "to Barugáza."

The passage into this gulph is narrow, and difficult of access when you approach it from the sea, lest you should be carried away to the right hand or the left. The left side is the best; for on the right there lies a stripe of shoal, rough and broken, called Herônè, near the village of Kammôni³⁵; and this shoal of Herônè, notwithstanding the shifting to which sands are liable, is not undiscoverable at the present day, or at least a representative for it, which will sufficiently elucidate the account in the journal. The charts and maps are full of shoals; De la Rochette has one extending from Swally to below Damaa, and others without it; and a particular one off Groapnought Point, which seems to be the Jamteir Shoal of Skinner, corresponding with the situation required: all of them are long, narrow stripes, like the Fillet [*ταινία*] of the Periplus, caused

³⁴ [Κατὰ] Τότε τὸν Κόλπον, τὸ πέρασος ἢ γαλῶν ἑρμακίας ἢ πλείους ἐς Βαρυγάζαν διαστρέψαι· ἢ ἐκ τοῦ ἰσχυροῦ ἀεροφωσῆ καταλιπέντις τὸ πῆσον, καὶ ἐς αὐτὸ ἀνατολῆ, ἐπ' αὐτὸ τὸ γῆμα τῷ ποταμῷ, Βαρυγάζαν. Κατὰ must be understood either with τὸν κόλπον, or τὸ πέρασος: I prefer the first, as usual in the journal. Τὸ πέρασος I render *clear channel*, as *open sea*, in comparison of a course along either shore; ἀεροφωσῆ is, scarcely appearing, scarcely visible; διαστρέψαι need not be taken in the strict sense of *crossing*,

but may signify *passing through the sea*, for 30 miles up the channel.

³⁵ Kammôni is sufficiently marked here on the side of the Gulph of Cambay, opposite to Diu, to shew that it cannot be far from the position of Surat, or at least must be south of Barugáza; and so Ptolemy places Kamanes in his most distorted map of this coast; and yet Major Rennell says, Cambay appears to be the Camanes of Ptolemy. *Memoir*, last edit. p. 210.

apparently by the rapidity of the tide, which throws up the sand, but will not permit it to accumulate in breadth. On the left, opposite to Kammôni, near the promontory of Asta Kampra, lies the cape called Pápika⁵⁶: here it is difficult to anchor, both on account of the current, and because the cables are cut by the foulness of the bottom. But even when the passage into the gulph is secured, the mouth of the Barugáza River is not easy to hit; for the coast is low, and there are no certain marks to be seen: neither, if it is discovered, is it easy to enter, from the shoals⁵⁷ which are at the mouth. For this reason pilots are appointed by government, with attendants in large boats, called Trappaga and Kotumba; these vessels advance as far as Surastrênê, or Kutsch, and wait there to pilot the trade up to Barugáza. Their first service, at the entrance of the gulph, is to bring round the ship's head, and keep her clear of the shoals: this they do by means of the many hands they have on board, and by taking the vessel in tow from station to station, which stations are all known and marked, they move with the beginning of the tide, and anchor as soon as it is spent at certain berths that are called Bafons⁵⁸; and these bafons still retain water after the tide is out, all the way to Barugáza. The town itself lies thirty miles up the river; which fact directs us to Baroache, without a possibility of mistake.

The difficulty of navigating this bay affords a sufficient reason why Barugáza should be more flourishing than Cambay, and Surat

⁵⁶ Pápika, *criminal, guilty*, barbarous. Mr. A. Hamilton. it would explain many particulars here mentioned.

⁵⁷ It was very late that I saw Skinner's Chart, by favour of Mr. Arrowsmith. His Memoir I have not seen; but I am persuaded, ⁵⁸ Κυβήδες, literally, kettles; from κύβητος, obsolete; χυβήτης, Hafych. Salm. 83.

preferable to Barugáza or Baroache; and yet Cambay was a great place of trade when Tavernier was in India. Mr. Hamilton adds, that the people of Cambay were formerly heterodox, or Bhuddists; and that Ariakè, which corresponds with Kemkem, or Concan, is the Country of *Believers*, probably in contrast to the inhabitants of Cambay. How wonderfully does this accord with the rise and success of Sevagee, and the Mahrattas, the restorers of Braminism in India, and the conquerors of the Mahomedan powers? The native superstition would naturally survive in the mountainous regions of the peninsula, while the Mahomedans overran the plains of Hindostan; and if Ariakè does signify the Country of Believers, it is a proof that this part of the peninsula was, in the earliest ages, celebrated for its attachment to Braminism. The Mahratta chiefs are many of them Bramins; but when in power, we find nothing of that meek spirit of the Hindoos so much vaunted in Europe: they have dethroned their sovereigns; they are the most cruel ravagers and invaders; equally greedy of desolation as plunder; they have destroyed much, and restore nothing: in short, they have made it a question, whether the whole people were not happier under the government of the Mahomedans, than their own. The house of Timour was a mild dynasty; Aurengzebe, indeed, was a tyrant, a persecutor, and a hypocrite; but Acbar was the father of his country. But to return,

The circumstance of the tides is not peculiar to this place, though they are more violent here than elsewhere; for almost all the rivers of India are large, and have both the flux and reflux of extraordinary strength, conforming with the moon, new and full, as well as for three days after each, and falling off again in the intermediate
space;

space; but at Barugáza this violence is more remarkable, so that without warning you see the bottom laid bare, and the sides next the coast, where vessels were sailing but just before, left dry as it were in an instant; again, upon the access of the flood-tide, the whole body of the sea is driven in with such violence, that the stream is impelled upwards for a great number of miles, with a force that is irresistible. This makes the navigation very unsafe for those that are unacquainted with the gulph, or enter it for the first time. No anchors are a security; for when the vehemence of the tide commences, there is no intermission, no retreat: large vessels caught in it are hurried away by the impetuosity⁵⁹ of the current, and thrown on their sides, or wrecked upon the shoals; while the smaller ones are completely overset⁶⁰. Many also that have taken refuge in the creeks, unless they have fortunately changed⁶¹ their place in due time, (which it is very difficult to do, on account of the instantaneous fall of the water,) upon the return of the tide are filled with the very first head of the flood, and sunk. But all these circumstances united concur more especially, if the new⁶² moon falls in conjunction with the night tide; for then, if you have been prepared to enter upon the first of the flood, and when the sea appeared perfectly calm, you shall hear, in a moment, a rushing sound like the tumult of battle,

⁵⁹ Τῆ ἑδίῃ is a corruption for which nothing occurs. Perhaps ἐπὸλίθητα τῆ βίῃ?

⁶⁰ So the Oriental Navigator says, "Near Dagon the tide runs so rapidly, that if the vessel should take the ground she must overset immediately. and in all probability every soul on board perish, which often happens through the neglect or obstinacy of the pilots. P. 207. Another part, near Gogo, is described as very dangerous, and environed with rocks and

shoals; and he notices that the tide runs six miles an hour. P. 206.

⁶¹ Ὅτ' εἰ μὴ διέρῃ. Dodswell reads διέρῃ, rowed off, rowed through; which I follow.

⁶² Συμμεταίῃς, the moon in conjunction with the tide. But συμμεταίῃς does not occur in the lexicons: may it not be νεμεταίῃς? Hudson renders it interlunias, which has little to do with high tides.

and the water driving forward with the utmost impetuosity, covers the whole of the bare shoals in an instant.

It will immediately appear, that this description relates to that sort of tide which is called the Bore⁶³, and is common to many places in Europe as well as India. On the coast of Egypt, or in the Red Sea, the author could have seen nothing that resembled it, and he dwells upon it, therefore, with more minuteness than a modern observer would employ; but from this very cause it is that we have a picture which cannot deceive us, and a conviction that the author relates what he had himself experienced.

We come next to the enumeration of the countries with which Barugáza is connected, and its relative situation with regard to the provinces that surround it. Among these, on the north-west, lie the Aratrii, Rachoofi⁶⁴, and Tantháragi, names with which we are totally unacquainted, as they do not occur in any other author; but that they lie towards the north-west, between Guzerat and Multan is manifest from the succeeding district of Proklaís, which comprizes the city of Bookephalos, for that we know to be in the Panjeab. He then adds, that beyond Proklaís, still farther to the north-west, lies the province of Bactria, governed by its own⁶⁵ kings. Here we may observe, that the country between Guzerat and the Indus is to this day less known than any other part of India: it is a sandy

⁶³ See the description of the Bore, called Macareo, in Pegu, by Caspar Frederick. He mentions fountains in that river like these; and adds, that the Macareo in Cambay is nothing equal to that of Pegu. Hackluit, ii. p. 234.

⁶⁴ The Rachoofi are the giants of India, as I learn from Mr. A. Hamilton, of Edinbro'.

⁶⁵ Bayer's catalogue of Bactrian kings, ends 134 years before our era, and therefore he has

no king for the age of the Periplus. For *ὁπὸ βασιλῆος ἑσων ἴδιος νόμου*, he proposes to read *ὁπὸ βασιλείου ἴδου; ἑσων*. And some correction is wanting; for *ἑσων* neither agrees with *ἴδου*; or *νόμου*. May not the merchant of Periplus have heard of a Bactrian dynasty, and assigned it to his own age after it was extinct? Bayer imputes the age of the Periplus to Aurelius Antoninus. Hist. Bact. p. 98.

desert, affording refuge to tribes of Rajpouts, Hendouans, and Ashambetis, called Jams, who are all without fixed habitations, and plunderers like the Arabs. These may correspond⁶⁶ with the hordes mentioned by the author; but from Minnagar upwards, to the Panjeab and to Bactria, we can follow him with more precision; for in these parts, he says, there still remain memorials⁶⁷ of Alexander and his conquests on the Indus; such as altars, the entrenchments of his camps, and very large wells. The last particular seems evidently to refer to the wells which Alexander opened in his three days march to the East from the eastern branch of the Indus: they were on the route to Guzerat; and the route between the Indus and that province is kept open, at this day, only by wells of this description in the desert. But we are told afterwards, that Alexander marched eastward from these countries to the Ganges⁶⁸, neglecting Limúrikè, and the whole peninsula on the south. This only proves that our author was a much better merchant than an historian; but he redeems his error by the preservation of a circumstance which fell under his own observation; which is, that coins with the Greek inscriptions of Menander and Apollódotus, who reigned in this country after Alexander, were still current in Barugáza.

⁶⁶ Hudson wishes to convert Aratrii into Arii, and Rakhooii into Arachosii. So far as Aria and Arachosia are connected with Bactria, there is reason in this; but if there is any order observed in arranging these tribes, they ascend with the Indus to Moultan and

the Panje-ab, and thence with a north-westerly direction to Bactria.

⁶⁷ ἱερὰ ἀρχαῖα. Sacella, Hudson.

⁶⁸ It will be readily allowed, that an author who could fall into this error, might be mistaken in regard to the kings of Bactria.

VII. KINGDOM OF BACTRIA, TÁGARA, PLÍTHANA, OZÈNÈ,
DEKAN.

THIS Apollódotus is hard to discover, even by the scrutinizing accuracy of the learned Bayer; but Menander he has introduced into the catalogue of his Bactrian kings, and with a most peculiar distinction, that he had extended his sovereignty down the Indus, and over the Delta of the Patalene⁶⁹. This extraordinary influence of the Greeks, in these distant regions, is no more to be wondered at, than the erection of kingdoms by the descendants of officers of Ginghiz Khan, Timour, or Nadir Shah: the heads of a conquering army are all as ready to divide an empire, as the successors of Alexander; and the officers of these successors, as eager to revolt from their principals, as the principals from the family of the conqueror; thus rose the kingdom of Bactria, by the revolt of Théódotus from the monarch of Syria, which maintained itself for near an hundred and twenty years, and consisted at one time of a thousand cities: similar to this, perhaps, was the sovereignty of Apollódotus, who seems to have had some provinces towards the sources of the Indus, which, in the obscurity of the Syrian history, cannot now be ascertained, and the memorial of which is preserved almost exclusively in the Periplus.

That the coins⁷⁰ of these princes should pass current at Barugázis,

⁶⁹ See Straño, p. 471. Bayer, Hist. Bactriæ, p. 80.

⁷⁰ Paolino informs us, that P. Pavoni, a missionary in Myfore, found a coin of Claudius in the river Caveri. P. 98.

Renaudot's Arab, p. 15. mentions a Thattarian drachm, which weighs half a dram more than the Arabian drachm. But this is not a foreign, but a domestic coin; it bears the die of the prince.

is no more uncommon⁷¹ than that the Venetian sequin⁷², and Imperial dollar, should be at this day current in Arabia, or that the Spanish piastre should pass in every port of India and the East; that is, round the world from Mexico to Manila, and in some instances, perhaps, from Manila to Mexico again. A fact still more worthy of notice is not to be omitted, as it is an observation appropriate to a merchant⁷³; which is, that the denarius, either gold or silver, was exchanged with advantage against the specie of the country. This is in correspondence with the testimony of Cosmas, almost five hundred years later; who takes occasion, at Ceylon, to mention, that the Roman money was received, and trade carried on by means of it, to the utmost extremity of the world, no nation having a [standard of] coin pure enough to compare with the Roman. And it is a truth (as I learn from Clark on Coins), that the Byzantine standard was not only the purest, but most permanent, of any in the world.

Before we can proceed to the commerce of Barugáza, we have other relative situations to consider, as Ozênè on the East, and Plithana, and Tágara, on the south-east. These Lieut. Wilford has concluded to be Ougein, Pultanah, and Deoghir. There is every reason to adopt his conclusions; and if, after the several circum-

⁷¹ Niebuhr says, vol. i. p. 137. that Greek, Persian, and Roman coins are still current in Kurdistan; and Nicolas di Conti Ramusio, tom. ii. p. 286. mentions the Venetian ducat as current in India in 1440, that is almost 60 years before the Portuguese reached India.

⁷² On the coast of Malabar, women appear at this day ornamented with sequins, coins of Portugal, and English guineas, by way of necklace. Moore's Narrative, p. 293.

⁷³ I do not wish to deprive either Bayer, or Robertson, or Maurice, of the honour of these observations, previous to the present publication; but they could not be omitted here, as forming part of my plan; and I had obtained my information previous to consulting any of their works. An author, in the legal phrase, *takes nothing* by such an assertion; he deserves nothing but what the reader pleases to allow him. See Bayer, Hist. Bañ. p. 108.

stances already enumerated, we have cause to think highly of the information of our author, we shall be disposed, after tracing these several connections, to allow that there is no specimen of ancient geography so completely satisfactory, or so consonant to truth, as the portion now under contemplation.

Towards the east of Barugáza lies Ozêncê, which was formerly the capital of the country. What are we to understand by this, but that the Parthians, who were now masters of Minnagar, and possessed of Guzerat, had driven the native Hindoos out of power, and seized upon the government of these provinces themselves? And what do we see in this, but the prototype of the Mahomedan usurpations, which have been too faithfully copied by European powers? and whose place we now occupy as masters of Surat, Baroache, and Cambay, at the present hour. When the Europeans first reached India, Surat was the principal seat of commerce on the north, as Calicut was on the south; and the merchants of Guzerat were the richest and most active traders in India. Surat is not more than forty or fifty miles from Baroache, and Baroache⁷⁴ is the Barugáza of the Periplus. In the age of that work, the merchants of this country were not less vigorously engaged in their pursuits: they traded to Arabia for gums and incense, to the coast of Africa for gold, and probably to Malabar and Ceylon for pepper and cinnamon. If I could find any thing in history to countenance the idea of the Hindoos⁷⁵ being seamen⁷⁶ in any age, I should place them

⁷⁴ Al'Edrissi calls it Berag, and Beruts; the English now call it Broche. Strabo writes Bargosa. D'Anville, *Geo. Anc.* p. 88. But this is dubious; for the Bargossi of the Periplus are on the other side of the peninsula.

⁷⁵ Quello che bee vino non si receive per

testimonio, ne quello che naviga per mare perche dicono che chi naviga per mare è desperato. Marco Polo, lib. iii. c. 20. p. 54.—

This relates to the Hindoos of Coromandel.

⁷⁶ Sir William Jones has supposed, that, from Bottomry being mentioned in the laws

them in this province. But as Barthema informs us, that in his time the Hindoos at Calicut⁷⁷ left all navigation to the Mahomedans, so it should seem that the prohibitions of their religion had been uniform from all ages. Pliny speaks as strongly of the Arabs on the coast of Ceylon; and Arabs⁷⁸ there must have been at Barugáza for the same purpose, unless it should be discovered that there was some cast, of a degraded sort, that supplied their place. Fishermen there are, but they can cook and eat their food on shore; and even fishermen are an abomination in Malabar. Merchants, however, may grow rich at home, while other nations are their carriers; and that the greatest trade of India was in that age fixed in Guzerat, is evident, not only from the enumeration of articles at this port, but from the general importance it bears in the mind of the author, and the circumstantial detail of all that is connected with it.

The connection with Ougein⁷⁹, and the mention that this place was once the seat of government, is in perfect conformity with

of Menu, the Hindoos must have been navigators in the age of that work. Now, that ships of Hindoos went to sea, and that a proportionate interest for the hazard of the sea was to be paid on money borrowed, must be true; but it remains to be proved that the seamen were Hindoos. And his endeavour to prove that they used the sea in former ages, proves that it is contrary to their principles and practice in later times. It is only within these very few years that the English have been able to carry their sepoy's by sea; and in doing this, there seems to have been employed money, discipline, and a variety of fictions to save their conscience.

⁷⁷ In urbe Calicut qui Idola colunt [Hindoos] non fulcant maria, id munus Mahometanis delegatur. Quorum numerus in ea civi-

tate sola excedunt quindecim millia. Barthema apud Grynæum, p. 112. And in Orme's account of the fleets near Bombay, one party were Siddees, or Abyssinians, and the other Arabs chiefly. Angria was a Hindoo, as well as Sevagee; but his fleets were full of Arabs, and so were those of his predecessors. See the attack made on an India ship called the President, in 1683. Orme, p. 171.—The Arabs . . . the first navigators in the world for the Indian seas. Sir John Chardin, in Renaudot, p. 147.

⁷⁸ When the Portuguese came to India, the Arabians transacted all the trade of the East. Renaudot, p. 173.

⁷⁹ See Hunter's journey from Agra to Ougein. India Annual Register 1800, Mistel, p. 279.

modern information; for Ougein⁸⁰, as it is at present subject to Scindia, and the capital of his jaghire, so was it, from the earliest ages, the properest situation for a metropolis, as being in the centre of those tribes of Hindoos which have been less⁸¹ intermixed with foreigners, and less subject to invaders, than the other tribes of Hindostan. Its pre-eminence and importance are still farther proved by its having been, and still continuing, the first meridian⁸² of the Hindoos, which appears from accurate English observations to be in long. $75^{\circ} 51' 0''$ ⁸³ from Greenwich, and its latitude $23^{\circ} 11' 12''$. The ruins of the ancient Ozênè are still discoverable, at a mile distance from Ougein; and coins and bricks are still dug up there, at the depth of fifteen feet or more. Pliny makes no direct mention of Ozênè, but incidentally only, as denoting a species of the spike-

⁸⁰ Written Ujjayini, Ujjein. D'Anville, India, p. 95. Ujjayini awinti, or avanti. Hunter.

⁸¹ The revolt of Sevajee, the founder of the Marhatta power, was in the time of Aurungzebe, when the house of Timour was in its meridian splendor. These Hindoos of the Dekan had never been reduced; and though the Rana of Ougein, who was the principal of the Hindoos of Agimere, had been subdued by Acbar, the interior was so difficult of access, that there had always remained tribes in the mountains who were independent. Sevajee (or, as he is otherwise called, Bonsoia) first reduced the mountaineers of the Dekan into order, and formed them by discipline till he set the Mogul power at defiance: he plundered Surat repeatedly, spread his incursions on every side, and levied contributions to a vast amount. He died possessed of a sovereignty, which grew up during the decline of the empire under the successors of Aurung-

zebe, and has become the greatest Hindoo power since the first invasion of the Mahomedans.

⁸² See *Asiat. Researches*, Lond. ed. v. p. 194. and *India Register* 1800, 292. Miscel. longitude determined by eleven observations of Jupiter's Satellites; latitude, by eight.—Another first meridian was at Lanca, or Ceylon. Paolino, p. 309.

⁸³ Jeffing, or Jaya Sioha, soubadair of Meliva, in 1693 constructed observatories at Ougein, Delhi, Benares, and Matra. Sir Rob. Barker describes the observatory at Ougein, and found the latitude to be $23^{\circ} 10' 24''$, which the native observers made $23^{\circ} 10'$, seconds they do not notice; but it appears likewise that they had instruments and books from Europe. Mr. Hunter doubts the antiquity of Hindoo astronomy, and informs us, that when he was at Ougein, Jeffing's observatory was turned into a foundry for cannon. *Asiatic Researches*, v. p. 196. Lond. ed.

nard; but Ptolemy calls it the capital of Tiaflánus, and his royal residence: he places it on the Namáduſ, or Nerbudda, which is the river of ⁶⁶ of Barugáza; which river is ſaid to riſe out of the ſame lake as the Saone, and which takes an eaſtern direction; ſo that the courſe of the two rivers into the ſea, eaſt and weſt, turn what is called the peninſula of India into an iſland.

D'Anville ⁶⁷ conſiders Ougein as the reſidence of Porus, who ſent an embaſſy to Auguſtus. The rajah is called Rhana, and pretends to be deſcended from Porus, who was defeated by Alexander. Fabulous accounts of Alexander are as current in the Eaſt, as in Europe; and for the ſake of proving the antiquity of his family, a prince might have the vanity to think it an honour that his anceſtor was defeated and conquered. But Porus ſignifies a chief or ſovereign: it may have been an appellative, as well as a proper name; and the ſovereign of Agimere, if his influence extended over Guzerat in the age of Auguſtus, might have had commercial ⁶⁸ tranſactions to regulate with the Roman empire.

From Ozênè every ſort of commodity is brought down to Barugáza, which can contribute to the ſupply ⁶⁹ of the country, and many articles for foreign trade ⁷⁰, comprehending

Όνουχίνη λιθία,	-	-	-	Onyx ſtones.
Μυρρίνη,	-	-	-	Porcelain.
Σινδόνας Ινδικαί,	-	-	-	Fine muſſins.
Μολόχωναι,	-	-	-	Muſſins of the colour of mallows.

⁶⁶ Major Rennell, in his firſt map, placed it on a ſtream that ran into the Nerbudda; in his corrected map, it is on a branch of the Siparch, which joins the Chumber, and falls into the Jumna.

⁶⁷ Antiq. de l'Inde, p. 95.

⁶⁸ This is upon the ſuppoſition, that the 120 ſhips which Strabo ſaw at Berenikè actually reached India.

⁶⁹ Έυθλοία.

⁷⁰ Προς ημετέρας εμπορίας, for our trade.

Ἰκανὸν χυδαῖον ὀσόνιον, - - A large quantity of ordinary
cottons.

And many articles that only pass through Ozênè to the coast, from
the country farther inland; as from the Panj-ab⁹⁹,

Νάρδος,	-	-	-	-	} Spikenard, of different sorts.
Κατακυρίνη ⁹⁹ ,	-	-	-	-	
Πατροπαπίγη,	-	-	-	-	
Κακαλίγη,	-	-	-	-	

Κόστος, - - - - - Koftus.

Βδέλλα, - - - - - Bdellium. A gum.

The Imports at Barugáza are

Οἶνος, - - - - - Wine.

Ἰταλικὸς προκηγμένους, - Italian wine, in preference to all
other.

Λαοδικηνὸς, - - - - - Laodicéan wine. Syrian.

Αραβικὸς, - - - - - Arabian. *Querc*, Palm, or Toddy?

Χαλκός, - - - - - Brass.

Κασσίτερος, - - - - - Tin.

Μόλυβδος, - - - - - Lead.

Κοράλλιον, - - - - - Coral.

Χρυσόλιθον, - - - - - Topazes.

Ἰματισμὸς, - - - - - Cloth.

ἀπλῆς, - - - - - plain.

νόθος παντοῖος, - - - - - mixed, of all sorts.

Πολύμικται ζῶναι περχυαῖαι, - Variegated fashes, half a yard wide.

⁹⁹ Προσάμ.

⁹⁹ I imagine all these to be different species of Nard, taking their name from the places from which they come. And if a conjecture may be allowed, Καβαλίη is from Kabul, a

mart through which it might regularly pass out of Tartary, or Thibet, its proper soil. Al Edrissi uses the term *Myrobalanus Kabolinus*, for the Myrobalans of Kabul, p. 66.

Στόραξ,	-	-	-	Storax.
Μελίλωτον,	-	-	-	Sweet lotus.
Ἰεὸς ἄργυρος,	-	-	-	White glass.
Σανδαράκη,	-	-	-	Ore of Cinnabar.
Στήμι,	-	-	-	Stibium for tinging the eyes.
Μύρον ἢ βαρβύτιμον,	-	-	-	Ordinary perfumes, or unguents,
ἔδδ πολὺ	-	-	-	and in no great quantity.

Besides specie, upon which there was a profit, and the presents that went up to the king at Minnagar, as mentioned before. It is not evident why these presents were not rather landed at Barbárikè, which was the direct port for Minnagar, than at Barugáza; but our author says, that the king of Minnagar was sovereign of Barugáza also. Perhaps, by their being mentioned here, they went only to the viceroiy or soubah of the province. The expression in the text is dubious¹; but the context seems to imply, that from the country to which these presents went up, there came down in return, distinct from the exports of Barugáza,

Νάρδος,	-	-	-	Spikenard.
Κόστος,	-	-	-	Kostus.
Βδέλλα,	-	-	-	Bdellium.
Ἐλέφας,	-	-	-	Ivory.
Ὀνυχίου λίθια,	-	-	-	Onyx stone.
Σμύρνα,	-	-	-	Myrrh.
Λύκειον,	-	-	-	Box thorn.
Ὅθόνιον παντοῖον,	-	-	-	Cotton of all sorts.
Σηρικόν,	-	-	-	Silk.

¹ ἢ βαρβύτιμον καὶ ἑτέρον τῶν κειμένων. Had Guzerat revolted, and set up a king of her own, at that time &

Μολόχρον,	-	-	-	Mallow-coloured cotton.
Νῆμα,	-	-	-	Silk thread.
Πέπερι μακρὸν,	-	-	-	Long pepper.

And other articles from the ports in the neighbourhood. Several of these are the same as those that were specified as procurable at Barugáza, and consequently we can see no reason for the recapitulation, except the different means of obtaining them from a different part of the country. Such, however, are the commodities in general derived from the North and from the East, and such was the importance of the commerce of this place in the time of Pliny. Zízeris and Muzírís, farther to the south, seem to have been the more particular object of the voyage by the monsoon, across the sea from Arabia to India direct; but in our author's age, though he mentions Muzírís, it is transiently, in comparison with Barugáza and Nelkunda: these seem to have been his grand marts. And for Barugáza, he says, the fleets left Egypt in the month of Epiphi, or July.

He still persists farther in the execution of the same design; for, after stating what was obtained from the Panj-ab and Ozénè, he proceeds next to the south, in order to shew what was the connection between Barugáza and the Dekan. This is, if the boast may be allowed, the peculiar pre-eminence of the work: it belongs to this author alone, as far as I have discovered, to give the true direction of this western coast of the peninsula, and to state, in direct terms, its tendency to the south, while Ptolemy stretches out the whole angle to a straight line, and places the Gulph of Cambay almost in the same latitude as Cape Comorin.

But the declaration of the Periplus is this:—From Barugaza, the coast immediately adjoining which ran up north [to the river Mais,

or Mahi], now stretches directly to the south; the country is therefore called Dakina-bades²³, because DAKHAN, in the language of the natives, signifies SOUTH. Of this country [which is called DAKHAN] that part which lies inland, east of Barugáza, comprizes a great space of wild and desert country, and large mountains, in which are found leopards, tigers, elephants, vast serpents, hyenas, and baboons²⁴ of various sorts. [But in the inhabited parts] there are also a great variety of different nations, and exceedingly populous, quite across the peninsula to the Ganges²⁵. Besides this, in the territory of Dakhinabad there are two emporia, or marts, of more particular importance; for at the distance of twenty days south from Barugáza lies²⁶ Plíthana, and ten days east of Plíthana is found Tágara, which is the largest city in the country. The commodities from these two cities are brought down, through roads of great difficulty, by land-carriage, to Barugáza; that is, from Plíthana, a great quantity of onyx stone; and from Tágara, ordinary cottons²⁷

²³ Dakin-abad, city of the South. Dakhina-wad, southern region. Bayer.—Dachhina. Paolino.

²⁴ Inter Simias, efferatur Cynocephalis natura, sicut Satyris. Pliny, lib. viii. c. 54. c. 80. Handouin. See the authors he cites. Aristot. lib. ii. de Natura Anim. c. 13. Palmerius, &c.

²⁵ Τὰ μέγιστα τῶν οὐρίων, which is nonsense; and Hudson and Stuckius very properly read μέγιστα τῶν Γάγγων.

²⁶ There is evidently an omission in the text; for two cities are in the context, and only one of these is named. It appears that a part of the sentence, and not the name only, is wanting.

²⁷ The cottons here called μάδωχμα, Lieut. Wilford says, are those dyed of a whitish pur-

ple, like the mallow-flower. There is nothing more singular in this than in the *blue* Surats, which at this day have a constant sale on the opposite coast of Africa, in Abyssinia, and in the ports of the Red Sea. Paolino interprets μάδωχμα, chintz: tele finissime dipinti et richamente. P. 95. Fine cottons are supposed to derive the name of muslin from Mosul, on the Tigris; a name which they had in common with gold tissue and silk, because these articles were either made or to be purchased there. See Marco Polo, lib. i. c. 6. tutti li panni d'oro & di seta che si chiamana Mossulini si lavorano in Moxul. Notwithstanding this high authority, I am sometimes inclined to think, that Μαδωχμα is the origin of Mosselias, or muslins; though I have nothing to build on but the proximity of sound, and conjecture.

in abundance, and all sorts of muslins, with a variety of other native productions which are not specified.

It is manifest, that of these two cities, Deoghir is Tágara, and Pláthana is Pultaneh; that the difficult roads are the Ghauts⁹⁷; and the mountains, that chain which runs parallel with the coast the whole length of the peninsula, from Guzerat to Cape Comorin. The country also between Guzerat and the Ganges does contain the deserts specified, not only in the vast tract called Berar, but in many other parts of the extensive territories occupied by the Mahrattas. The animals likewise are appropriate, and the whole is such a picture as no ancient geographer supplies in so distant a quarter of the world; so accurate, that it is hardly surpassed by Strabo, in his description of the countries of Europe.

Deoghir⁹⁸ was the seat of a Hindoo government as late as 1203, when it was taken by Feroze II. and is now a ruin near Elore, within four cosses of Aurungabad, on the River Godavery. It was the capital of the province of Doulatabad; and the central situation of these three cities, afforded a convenient position to the Patan emperors, as well as Aurengzebe⁹⁹, from whence they might propagate their conquests in the Dekhan. But the subterraneous excavations¹⁰⁰

at

⁹⁷ The Ghauts are literally the passes from the low country, over the mountains, into the upper region; but are generally used for the mountains themselves.

⁹⁸ Rennell has another Deogur upon the Tapti, p. 237. and Ptolemy has a Tiagura, as well as a Tágara. His Tiagura, indeed, is on the Nerbudda; but it is doubtless Deogur, near Nagpoor. Rennell, Mem. p. 213.

⁹⁹ Aurengzebe was usually at Amednagar. Orme.

¹⁰⁰ See the wonders of these ruins displayed in the magnificent and highly-curious work of Daniel, from the drawings of Wales. There is an apparent stamp of antiquity upon these excavations, superior to those of Elephanta, Malalipooram, &c. for there are fewer figures distorted with a multiplicity of arms and heads, there is a grace almost Grecian in several of the deities, and throughout, much less of the grotesque barbarism and obscurity than are found in the more recent structures of their superstition.

at Elore¹⁰¹, and the pagodas there, extending over a tract of two leagues at the present hour, imply an antiquity now inexorable, and preserve the vestiges of a superstition coeval with the remotest era of Braminism. These remains qualify the spot for the site of Tágara¹⁰², as early as the account in the Periplús; and it is manifest that the author speaks of it as a capital of a province, or a kingdom at that time existing, and the centre of the commerce from the interior.

Lieut. Wilford has a dissertation¹⁰³ on this city, inserted in the first¹⁰⁴ volume of the Asiatick Researches, in which he makes the distances from Baroach agree with those of the Periplús, by reckoning eleven miles as a day's journey for a loaded cart in that country; but twenty days south to Pultanah¹⁰⁵, and ten days east from Pultanah to Deoghir, is more than I can find by the scale of any map which has fallen under my inspection; neither do I find Pultanah mentioned in the maps of d'Anville, Rennell, or de la Rochette. Great allowances, however, are to be made for the winding of the roads, and the difficulties of the intervening ghauts; while the ruins of Elore, on the actual site of Deoghir¹⁰⁶, with the point of the

superstition. The wealth, the power, and the labour, requisite to form these excavations, equal, if not surpass, all that must have been employed in the edifices of Egypt.

¹⁰¹ Elore has been visited by Thevenot and Auquetil du Perron.

¹⁰² Deo-Ghur, the Hill of the Gods. A. Hamilton.

¹⁰³ As a commentator on the Periplús, many thanks are due from me to Lieut. Wilford; and with the whole of his historical deductions I perfectly agree. But his translation of *κατάγερα μυστρας ἀσπίδων*, is rendered, rather than correct: goods brought down to Baroach, or

carried up to Tagara, is a phrase as familiar in Greek as in English; and *μυστρας ἀσπίδων*, without being a translation of Bala Ghauts, fully identifies the difficulties of the roads through the mountains; *ασπίδων* never signifies ascent, as far as I can discover, but *descent* only; and if it did, to bring carriages down an ascent must be a solecism.

¹⁰⁴ P. 369. Lond. ed.

¹⁰⁵ Lieut. Wilford reckons 217 miles from Baroach to Pultanah on the Godavery.

¹⁰⁶ D'Anville has placed Tágara at Satara, in the Mahratta country. Antiq. de l'Inde, p. 108.

compass south-east from Barugáza, give a probability to the whole which is irresistible.

It were to be wished that other Gentlemen, employed in the East, would apply their local knowledge to the removal of these obscurities, as effectually as this meritorious officer has done in the present instance. Observations on the spot, confirmed by evidences peculiar to the country, form the true ground of proof, on which alone those who collect and compare, in the closet ought to depend. This evidence is appealed to by Lieut. Wilford; for the name of Tágara, written with the orthography of the Periplus, occurs in a grant¹⁰⁷ of land found, engraven upon copper, in the Isle of Salfet, near Bombay; and the rajah of the inland capital, by this monument, seems to have been connected with the coast, as effectually as Tágara was connected with Baroach eighteen centuries ago.

If we should now describe the arc of a circle, from Minnagar on the Indus, through Ougein, to Dowlatabad on the Godavery, of which Baroach should be the centre, we might comprehend the extent of the intelligence acquired by the merchant of the Periplus. But allowing that this was the knowledge of the age, and not of the individual only, where is this knowledge preserved, except in this brief narrative? which, with all the corruptions of its text, is still an inestimable treasure to all those who wish to compare the first dawning of our knowledge in the East with the meridian light which we now enjoy, by the intercourse and conquests of the Europeans. An arc of this sort comprehends near three degrees

¹⁰⁷ The date of this grant answers to the year 1018. of our era: it was communicated to the Asiatick Society by General Carnack, and has every evidence of authenticity. If the

reader should refer to it, he will find, that in the conveyance of land the lawyers of all countries are equally liberal of words. See *Asiat. Researches*, vol. i. p. 357. Lond. ed.

of a great circle ; and if upon such a space, and at such a distance from the coast, we find nothing but what is confirmed by the actual appearance of the country at the present moment, great allowance is to be made for those parts of the work which are less perspicuous ; for the author did certainly not visit every place which he mentions ; and there are manifestly omissions in the text, as well as errors and corruptions.

VIII. ARIÁKÉ OR CONCAN, THE PIRATE COAST, AKABAROOS, OOPARA OR, SÚPARA, KALÍENA OR BOMBAY, SEMULLA, MANDÁGORRA, PALAIPATMAI, MELIZÉIGARA, TÓPARAN, TURANNOS-BOAS, SESEKRÉIENAI, AIGIDII, KÁINEITAI, LEUKÉ.

THAT the author was at Barugáza, cannot well be doubted by any one that adverts to the variety and minuteness of his descriptions at that place. Whether he went farther down the coast to the south, or took his account from other voyagers, may not be so certain. D'Anville ¹⁰⁸ supposes that he accompanies us to Cottonara, and then takes one bound to Comorin and Ceylon ; but I wish to make no assertion either way. My own doubts arise from the impossibility of discovering ¹⁰⁹ those characteristic features, which are so easily traced in the narratives of those who have actually visited the country they describe. The coast we are now to follow, has few bold or prominent distinctions ; many rivers, but none large or majestic ; many ports, but fitted mostly for the reception of the

¹⁰⁸ Antiq. de l'Inde, p. 312.

¹⁰⁹ The district of Nelkunda is an exception to this.

vessels of the country alone; and only two capes worthy of notice, upon an extent of eight hundred and fifty miles.

Another method of inquiry is naturally suggested, by similitude of names; and of this I shall be as ready to avail myself as those who have preceded me in the attempt. Nothing, however, is more fallacious, if the situation be not as correspondent as the name; and names seem to have fluctuated more in India than in any other country that we know: a specimen we have just seen in Tágara, Elore, and Dowlatabad; all three appropriate to different ages, and all now concluded under Arungabad¹¹⁰. The names also of Al Edrissi, in the middle century, differ as much from the ancient names of Ptolemy, Pliny, and the Periplus, as they do from those of the cities and districts which are at present in existence. Mr. Orme, in the introduction to his illustrious history, has imputed this to the vanity of princes; and Tippoo Sultan confirmed this remark, by changing the name of almost every place in his dominions.

The great scope for conjecture, and the very few places which can be ascertained of all those which are enumerated upon the coast which we are now to investigate, is compensated, in some degree, by the appropriate description of the provinces or districts we are to visit. I agree perfectly with Major Rennell, in considering this as an object of much greater importance, than the placing of a town or a harbour on the map. And the fact is, that the different nature and properties of the districts are indelible; while the site of cities

¹¹⁰ Aurungabad takes its name from Aurungzeb, and seated here or at Amednagur, in a central situation. He carried on his inroads into Golconda, Visapour, and the states of Sevajee; trusting his armies to his sons and

his generals, and directing them all from this point. This bigot, hypocrite, and tyrant, is the primary cause of all the miseries that Hindostan has experienced for almost two centuries.

or fortresses has been changed, according to the prevailing interests of the day, or the caprice of conquerors.

The whole western face of the peninsula, from Cambay to Cape Comorin, is nearly equal to fifteen degrees of latitude. This extensive tract appears upon the map divided into six provinces, or districts, under the names of Cambay or Guzerat, the Concan, the Dekhan, Canara, Malabar, and Travancore¹¹¹. Correspondent to these, we have in the Periplus the province of Barugáza, the Lárikè of Ptolemy, equivalent to Guzerat; Ariakè¹¹² to Concan, or the Pirate Coast, between Bombay and Goa; Limúrikè to Canara, between Goa and Malabar; the Kingdom of Pandion, answering to the upper part of Malabar, including Calicut and Cochin; Paralia to Travancore, as far as Cape Comorin; and the Pearl Fishery, extending from Comorin to the Islands of Rami-ceram and Manar. The limits of these will appear distinctly in the prosecution of our inquiry; and if we fix the boundary of Lárikè at the Tapti, and include the modern Dekhan of the coast within the confines of Ariakè, our ancient geography will prove consistent with the modern division of the provinces. For, notwithstanding the fluctuations of power, or the change of masters, these are marked by characteristics that seem indelible. The only difference is, that the Periplus has no specific district equivalent to the Dekhan, but uses that term, in its general acceptation, as it is employed at the present day, embracing the provinces of the peninsula in contra-distinction to Hindostan.

¹¹¹ Travancore, though a kingdom of itself, is generally included in Malabar, as well as Calicut and Cochin.

¹¹² *Αριακή, Λιμυρική, Κοττοναρική*, are all adjectives with *ἡ* implied; but *Aria, Litmyra,*

or *Cottonara*, do not occur in the form of substantives throughout the work. I conclude that *Papikè*, the correspondent name to *Diu Head*, is an adjective likewise.

The Periplus seems to apply the name of Barugáza to the province as well as to the port; and this possibly, because at that time it was subject to Minnagar; but Ptolemy calls it Larikè, and makes it part of the kingdom of Ozênè, with the other towns or places on the River Namadus or Nerbudda; and as long as there was a regular Hindoo power at Ougein, that city seems to be the natural metropolis of the country. With equal propriety, the Tágara of Ptolemy and the Periplus, is connected with the Pirate Coast, both comprehended in the province of Ariakè, and both subject to Balco-koorus, whose capital was at Hippokoorá, supposed by D'Anville¹¹³ to be the Balhara¹¹⁴ of Al Edriffi¹¹⁵. His title was King of Kings, and he was connected with another prince or rajah at Baithana, called Siropokémus¹¹⁶, whom Lieut. Wilford¹¹⁷ makes the Salibaham of the Hindoos, and his metropolis, Pattán. I am not sufficiently informed, to confirm or invalidate these opinions; but I find that the Balhara¹¹⁸ of Al Edriffi resided at Naherwalleh¹¹⁹, the ancient capital of Guzerat, prior to Amedabad; and if so, Ptolemy would have placed Hippokoorá¹²⁰ in Larikè, and not in Ariakè, where it now

¹¹³ Antiq. de l'Inde, p. 93.

¹¹⁴ Paolino places the Balhara in Concan (Kemken), on the authority of Renaudot, Arabian. Balhara, he says, is Balia Raja, Great King; but if in Concan, he is certainly not the Balhara of Al Edriffi. He adds, "Se D'Anville avesse fatto il viaggio dell'India, prima di scrivere la sua Antichità dell'India, non avrebbe commessi tanti spropositi nei suoi libri." P. 98. He treats none of us who write at home with greater civility. Hippokoorus, the capital of Balco-kooras in Ptolemy, is in Concan, or what in his map answers to Concan, and not to Guzerat.

¹¹⁵ P. 62.

¹¹⁶ Sri, or Shri, is an inferior title of respect,

like our Sir or Mr. See inscription at Tanna. Af. Recherches, vol. i. p. 367. Lond. ed.

¹¹⁷ Dissertation on Tágara, p. 373.

¹¹⁸ See Bayer, Hist. Reg. Bañt. p. 29. who cites several Oriental authorities, but determines nothing.

¹¹⁹ Nahrcoara, Nahrwara, Nahrwallah.

¹²⁰ Hippokoorá, compared with the relative situation of places round it, might lead us to something not very distant from Poona, the present seat of the Mahratta government, were it not on a river that comes into the Western Sea. Poona is above the Ghauts, about 100 miles S.E. from Bombay; and there is no river, on this part of the coast, that comes from the other side of the Ghauts.

stands in his geography. But I am persuaded that both Ptolemy and the Periplus agree in the general division and relation of Larikè and Ariakè, and differ only in the appellations they have adopted. The names of places, rivers, mountains, and provinces, in Ptolemy, are as astonishing as his errors in position, longitude, and latitude, are manifest. His positions, however, are for the most part relatively right, though they are essentially wrong; and the errors of his longitude, in which he is principally mistaken, must have arisen from his manner of acquiring information—by interrogating the merchants and mariners at Alexandria, whose reports were from memory, and not from journals. But it is evident, that many of these must have penetrated far inland, otherwise he could not have left us the great outline of truths which is still manifest in his works, and which makes us forgive all his particular errors, in consideration of the general and important information that we obtain.

VIII. I am now to enter upon the description of this coast, incidentally traced by Hardouin, Robertson, Rennell; Paolino, and many others; but where no one has regularly gone before me, through the whole extent, except d'Anville. His conclusions I shall be compelled to question, but it will not be done without diffidence on my part, and without due respect to his learning and abilities; for d'Anville is the first writer, properly speaking, who has taught us to investigate the geography of the ancients, by tracing the characters of different coasts and countries as they exist at present: to him we look up, as to a master in this branch of the science; and even where his errors are demonstrable, we cannot but respect the extent of his learning, experience, and information.

At the commencement of our inquiry, the first information we receive from the Periplus is, that the extent of the coast from Barugáza to Limúrikè is seven thousand stadia, or seven hundred miles; but as this would carry us, at one step, to Mount d'Illi¹²², it is rejected by Rennell, d'Anville, and I believe all the writers who have examined the subject. The commencement of Limúrikè, our author has placed at Naðora, Tyndis, and Muziris. And as it will hereafter appear that these places must be near the northern limit of Canara, and that therefore we have every reason to conclude Limúrikè has nearly the same limit as that province, we cannot take off less than two hundred from the seven hundred miles, to preserve the proportion of the coast. This is one reason, among others, which may induce a doubt, whether or not the writer of the Periplus performed this part of the voyage himself.

The first places mentioned, upon leaving Barugáza, are

*Akabároos*¹²³, *Oápara*, and *Kalliena*.

In

¹²² In consideration of this circumstance, and my general dependance on the measures of the Periplus, I was originally disposed to consider Arákè as comprehending the whole coast, from the Tapti to Mount d'Illi; and if the Province of Limúrikè were to commence at that cape, the islands off the coast of Limúrikè, that produce the tortoise-shell, according to the Periplus, and which may be well assumed for the Lack Dives, correspond better with a Limúrikè south of d'Illi, than north. But the strong ground that Rennell has taken for assigning Nelkunda to Neli-ceram; the circumstances at that place according so essentially with the ancient account; the division between Limúrikè and the Kingdom of Pañá

ñon, that is, Canara and Malabar; added to the correspondence of the islands on the coast, made me prefer the arrangement which I have adopted. The detail of this will be explained at large as we proceed.

¹²³ It is not affectation, or a love of singularity, that induces me to assume the Greek kappa, rather than the c of the Latins, or the English diphthong oo, for the Greek w; but a hope that the true sound, and true orthography, may direct the eye or the ear of modern travellers, or voyagers, to the discovery of ancient names. The distortion of European names by Oriental writers is astonishing to us; and our mode of expressing Oriental sounds, received by the ear, must be equally offensive

In regard to Kalliena, all suffrages¹²³ are united to fix it in the neighbourhood of Bombay; for Bombay is upon an island, close to which, on the main, was an ancient city called Gallian. The ruins of Gallian still remain, and are noticed by Fryer¹²⁴ in 1675, as the most glorious ruins in the Dekhan the Mahomedans ever had to deplore. His account proves it to have been a city of the Hindoos, and its situation commanding Bassen, Salfet, and Bombay, gives it a pre-eminence as a mart of commerce in all ages.

But if we have so much concurrent testimony for fixing Kalliena near Bombay, we have almost two hundred miles of coast on which we are to look for the other two places named; and if Oópara be the Soopara of Ptolemy, as is generally allowed, it must be a place¹²⁵ of some note¹²⁶; for Subara is joined with the mention of Cambay, in the middle ages, by Al Edrissi. It is supposed, by d'Anville, to answer to the Sefareh el Hende of the Oriental geographers, in contradistinction to the Sefareh el Zinge on the coast of Africa, which is the Sofala of the Portuguese; and these two Sofalas, one in India, and the other in Zanguebar, are supposed to be in constant habits of mutual commerce and correspondence, by means of the alternate monsoons.

An intercourse of this kind between Guzerat, and the coast of Africa, I have mentioned in the former part¹²⁷ of this work, which

to their perceptions. Ebn Haukal writes Sakaliah, Akrites, and Kibres, p. 53. which would certainly require some attention of the mind before a common reader would discover that they are Sicilia, Creta, and Cyprus.

¹²³ Orme, Rennell, Robertson, d'Anville, &c. Cosmas has Caranja in the harbour of Bombay.

¹²⁴ Orme, Hist. Fragments, note 30.

¹²⁵ It was the see of a bishop, as early as the sixth century. *Καὶ ἐν τῇ Καλλιᾷ ἐν τῇ καθολικῇ καὶ ἐπίσκοπος ἴσως ἀπὸ Περσίδος χειροτονήσας.* Cosmas Paolino 100. That is, from Mosul of Marco Polo. Lib. i. c. 6.

¹²⁶ Supura signifies a splendid city. A. Hamilton.

¹²⁷ Pages 145, 146. 253.

the Periplūs describes as previous to the voyages of the Greeks in the Indian Ocean, and totally unconnected with them; conducted by native merchants on both sides, or by Arabs, who were carriers for both. On this latter point there can hardly be a doubt, when we find that the vessels employed in this trade sometimes discharged part of their lading in Zanguebar, and proceeded afterwards to Arabia; and when we learn from the same work, that most of the settlers on that coast were Arabs, and several of the places subject to the different sheiks of Arabia, as they are at this day. These are the large vessels from India, which Agatharchides describes as early as the time of Philadelphus, found by the Greeks in the ports of Arabia; and from which they obtained all the commodities of the East before they went to India themselves. This commerce we may carry back to the ages long antecedent to history, and conclude, that as the monsoon must be known to the inhabitants of both coasts from the time they were inhabited, so must the communication have been opened from the earliest period in which mariners ventured to commit themselves to the ocean.

It is almost superfluous to add, that the Sefarch both of Africa and India has been converted into the Ophir of Solomon, as it has suited the hypothesis of different authors, to carry his fleets to the east or to the south; and fortunately, both opinions may be maintained or combated, without danger of controverting the authority of scripture.

After all these various particulars, which are left to the discretion of the reader, there does appear something of importance in the circumstance of Sooppara continuing a place of note, from the age of Ptolemy and the Periplūs to the time of Cosmas and

Al Edrissi¹²⁸; and it seems not impossible to determine its situation, by observing that Ptolemy places it on the north of the first great river south of his Namadus, or Nerbudda: this river must be the Tapti, and the place north of the Tapti must be Swalley, or some place near it; in the front of which lies the road of Surat. How d'Anville could carry this down to Sifferdam¹²⁹, seventy miles south of Bombay, when he unites in supposing Kálliena and Bombay to be the same, is inconceivable; but as he places his Sefarch el Hinde there also, the resemblance of a name has made him disregard the arrangement of his author: but if the author has any meaning, Soopara must lie between Baroache and Bombay, and most probably in the vicinity of Surat. Surat itself is said to be a modern¹³⁰ city; but a mart in its neighbourhood must always have commanded a great access to the interior, as the Tapti extends upwards, from the sea, full four hundred miles, and communicates by its branches with a variety of districts which are rich and flourishing. It is this circumstance which has made Surat superior in commerce to Baroache, for these three last centuries, as being easier of approach; and whatever city supplied its place on the Tapti must have partaken of these advantages, and such apparently was the Soopara, or Oopara, of the ancients. It is very remarkable, that Rennell has an Oolpar a little to the north-east of Swalley, in his corrected Map of India; but as he does not mention it in his Memoir, I cannot discover whether it is ancient or modern—a city or a village. I build little upon similarity of names; but as many gentlemen, now in England,

¹²⁸ By the repeated mention of Subara with Cambay in Al Edrissi, I had hoped to connect it with the Suppara of Ptolemy; but I think he means to place it north of Baroache, which he calls Beruh; if so, it will not answer our

purpose. But I cannot always follow his wanderings.

¹²⁹ Antiq. de l'Inde, p. 104.

¹³⁰ Which is proved by Capt. Hamilton, in his Account of the East Indies, vol. i. p. 144.

have been resident at Surat, if any thing should have occurred to their observation, they will be gratified by the introduction of this name to their recollection.

For Akabaroos I can find no representative: it may be fixed any where between Baroache and Surat; but as there is a small stream called Kim, by Orme, in the intermediate space, it is here that it should be looked for, were there any thing to direct our inquiries. But this place was apparently seldom frequented, and therefore it is not to be expected that much information should be left us by a merchant of Alexandria.

To return to Kalliena, the last name of the three mentioned. I join most readily in opinion with those who have preceded me in the inquiry; and consider the tablets discovered at Tana in Salfet, as a most valuable monument¹²⁷ for connecting the government at Tágara with the district on the coast. It is foreign to this work to enter into the present state of Bombay, under the power of the English; but as the first factory of our countrymen was established at Surat, it is interesting to observe how the acquisition of Bombay has enabled them to extend their influence over Surat, Baroache, and Cambay; to occupy the commerce of Guzerat, and to possess the power of dominion in those marts, where the Romans enjoyed only the privileges of merchants.

In the age of the Periplus, Kalliena was little frequented: in the reign of a former sovereign, styled Sáragan, it had been an established port of commerce; but Sandánes¹²⁸, his successor, admitted

¹²⁷ These tablets, containing a grant of land, have been mentioned before; and if the manner of writing Tagara be literal, the evidence is complete.

¹²⁸ Al Edrissi preserves the name of Sandan

applied to a mart five stations, or 150 miles, below Subára. The situation is not amiss; but whether it has any allusion to the name of a rajah or sovereign, is wholly dubious.

none of the vessels that came from Egypt; and if any entered the harbour by accident, or stress of weather, he immediately put a guard on board, and compelled them to go to Barugáza. This circumstance, Lieut. Wilford observes, favours strongly of an improper conduct in the traders, or might arise from the jealousy of a native power. The Romans shewed their influence, by erecting a temple to Augustus at Muziris; and if we suppose an attempt of this kind made at Kalliena, it bears a resemblance to the encroachment of Europeans on the natives, as well as the intrusions of the Arabs and Mahomedans. If we could have connected these governors, or rajahs, of the coast, with Mambarus, the sovereign of Ariakè, or fixed the residence of Mambarus at Tágara, Plíthana, or Hippocora, our picture would be complete; but on these points the Periplús is silent.

The ports or marts in succession ¹²¹ below Kalliena are

Semulla, Mandágora, Palaipatmai, Melizéigara, Tóparon of the Byzantians, *Turannos-boas*, the Islands *Séfékríenai*, the Island of the *Aigidii*, the Island of the *Káinetai* (in these places are the Pirates); and, after these, *Leukè*, or the White Island.

How this enumeration can have misled those who have preceded me in the inquiry, I cannot say; but to my apprehension we have the Pirate Coast, between Bombay and Goa, as manifestly delineated as we could require, and to that district our attention must be confined. On the primary point, indeed, of a coast infested by pirates, there is little difference of opinion; Ptolemy and Pliny are both in harmony with the Periplús, and modern writers are generally agreed;

¹²¹ *Merò ò Kallínan.*

for pirates there have been in all ages, as they are here described, till the Severndroog of Angria was taken by the English in 1765. But when we have obtained the coast, why any one should travel out of it to find modern names correspondent to those of our author, is not easily reconciled to the canons of geography. All these names are given as what our seamen would call *country* ports, frequented¹²⁴ only by the natives; and whether we can find representatives for them or not, is of no great importance, if we can mark the limits of the provinces; to effect which, the modern divisions of the country may be of great assistance. Orme¹²⁵ has observed, that the Mahratta language is spoken from Bardez, or Goa, to the Tapti; and these very limits I would assign to the Ariakè of the Periplus. It is well known, that the division of provinces often survives the revolutions of empire: the habits of the natives, and the boundaries of nature, are not always subject to the vicissitudes of conquest; and as the Tapti was the probable limit between the government of Minnagar and that of Mambarus, on the north; so on the south, there is a natural boundary between Goa and Canara; where we are also to look for the termination of Ariakè, and the commencement of the Limurikè of the Periplus.

For the situation of the few correspondent places, which I shall propose for the consideration of the reader, if the proofs should not amount to conviction, I shall at least do no violence to my author, or his text: I leave every thing free for discussion, as I find it; and even if my deductions should be erroneous, they will affect my own

¹²⁴ Μερὸ δὲ Καλλιέως ἄλλα ἑστὶν ἐμπορία. Rendered by Hudson, Post Callienam alia sunt emporia vernacula, quibus regionis incolæ tantum utuntur; and I conclude it is the true

meaning, illustrated by αὐτὸ δὲ τόπος, which immediately follows; and also by τοιαῦτα ἑστὶν. P. 34.

¹²⁵ Hist. Fragn. p. 57.

arrangement only, and mislead no one who is disposed to prosecute farther inquiries on the subject.

D'Anville has transferred the four first names of the catalogue from Ariakè to Barugáza, or Guzerat; knowingly and designedly¹⁴⁶ rejecting the order of the journal, and placing Semulla at Sumnaut Pagoda, Mandagora at Mangherour, Palaipatmai at Patan, and Byzantian at Bifantagan; now, reckoning only from Bombay, this is a displacement of an hundred and fifty miles; while Fra Paolino, who corrects d'Anville, and contemns all writers who have not been in India, carries Mandagora to Mangalor in Canara, and Palaipatmai to Baleapatna near Tellicheri, and Kalliena to Calanapuri¹⁴⁷ near Mangaloor. There is only seven hundred miles difference in the disposal of these names respectively; and a work which can admit of this latitude of interpretation, is either not worthy of a comment, or the different commentators must have preferred their own systems to all the evidence of their author.

To a common inquirer, the language of the Periplûs is perfectly consistent; and if a resemblance of names has misled men of superior information, it ought to set others more especially on their guard to follow the arrangement of the work which they have undertaken to explain; and not to erect systems of their own, which can be supported only by a perversion of the text.

The Pirate Coast was not formerly, and is not now, so totally inhospitable as to exclude all intercourse: the Portuguese had settle-

¹⁴⁶ Il ne faut point avoir égard à ce qu'on lit ensuite comme par forme de transition par M. Antiq. de l'Inde, p. 101.

¹⁴⁷ P. 100. Upon the whole of this there is only one question to propose: Does not

Paulino allow Aigidii to be the Angedives? p. 101.; and if he does, did he ever ask himself the question, whether those ports are placed to the north, or the south, of Aigidii, in the Periplûs?

ments at Daman and Basseen, north of Bombay, as well as at Choul and Dabul, to the south; and it is a conjecture highly probable, that the Zizêrus of Pliny, and the Meli-Zeigara of the Periplus, were at ¹³⁸ Siddee-Zyghur ¹³⁹, about an hundred and forty miles south of Bombay. Pliny ¹⁴⁰ informs us, that the fleet which left Egypt early ¹⁴¹ in July reached Okêlis in thirty days; and then employed forty more, in crossing the ocean with the monsoon to the shores of India. The point where they left the coast of Arabia, was Syágros, or Fartaque; and the port they directed their course to, was Zizêrus. This had been the usual track, but was not a safe one, because of the pirates which infested the coast, and which made it necessary for the ships not to sail without a body of archers on board; for this reason they had been latterly obliged to change their direction to Muziris, though it was a more inconvenient place to receive their lading, and still not safe from the attempts of the pirates in the neighbourhood. In the first instance, the pirates were on the coast;

¹³⁸ Major Rennell has a Sedasthygur below Goa; it is written Sudasth-gur in the Oriental Navigator, p. 220. It is the fort of Carwar, and totally distinct from Siddee-Zyghur near Rajapore, described in the Oriental Navigator, p. 215. This fort of Rennell's is situated on a high point of land, and being remarkably white, becomes very conspicuous at sea. If the point of land had been said to be white instead of the fort, I should have concluded that I had found the Leukê, or White Island, of the Periplus.

¹³⁹ Zyghur probably takes the addition of Siddee from the Siddees, a mixed breed of Abyssinians, Natives, and Caffres, established in Vishapoor, and masters of a fleet upon the coast, employed by Aurungzebe against Sc-

vagee. Orme says, they were a bold, ferocious race, and excelled all the navigators of India. Hist. Fragments, p. 81. But Cape Siddee is likewise written Cape Zeyd, and Cape Z. Zyghur, however, may be a place of modern date; I can find no other proof of its antiquity than what is here given, and therefore propose the whole with great hesitation.—It is written Jaigur in Moore's Narrative, pp. 2. 9. and Jaighur, by the same author. Gur, or ghur, is a fort; what is Zy? or Jai? or Zeid?

¹⁴⁰ Lib. vi. c. 23.

¹⁴¹ Ante ortum canis. Pliny.—Salmasius says, the Romans reckoned the 19th of July as the rising of the Dog Star. 1188.

in the second, in the neighbourhood. This exactly agrees with the Periplûs, which places Muziris, not in Ariakè, but Limûrikè; and when we come to Muziris, we shall find a farther correspondence that appears conclusive.

I wish to build no more on this conjecture than it will bear; but as I have found the utter impossibility of assigning positions to the places named in the Periplûs, and pretend to nothing more than prescribing limits to the province, even a conjecture of probability is worth something on a barren subject; and to another, which must follow it, I attach no greater importance.

Ptolemy has the Semulla, Balepatna, Byzantium, Mandâgora, and Melizigêris⁴², of the Periplûs, all upon the Pirate Coast; and on that coast, therefore, they undoubtedly existed, and not in Guzerat, where D'Anville has placed them, or in Malabar, whither they are carried by Paolino. That good Carmelite informs us, that Balepatna⁴³ signifies *a great city*; it is no great force, therefore, put upon this interpretation, to make it *the great city*, the capital, or the residence of a sovereign. And on this coast we have two Rajapoor, meaning, literally, the City of the Rajah. The most northerly of these, called Dunda Rajapoor, does not disagree with the Balepatna of Ptolemy. The distortion of his maps, however, does not allow us to speak with precision on the subject; but if his Semulla be St. John's Point (which it is more like than any thing else), his Bale-

⁴² Melizigêris, in Ptolemy, is an island, the Meli-zeigera of the Periplûs on the continent, and the Zizêris or Zizêrus of Pliny is a river and a port. The islands of Ptolemy are in such disorder on the coast of Cadrofia, and in the Red Sed, that there is nothing extra-

ordinary in their misplacement on the coast of India. His Ægidium is carried down to Ceylon.

⁴³ So Belia-puttun, great *puttun*, town or city. Moor's Narrative of Little's Detachment, p. 497.

patna lies somewhat short of two degrees lower down than his Semulla, and Dunda Rajapoor lies nearly at the same distance from St. John's. If I gain nothing by advancing these conjectures, I at least do no prejudice to my author; for his Palai-patnai is subsequent to Kalliena, and his arrangement is not disordered by the present supposition.

But where there is so little certainty attainable, it will be some pleasure to rest at last upon a point that presents us something like truth. This, I am persuaded, I have found in the islands that terminate Ariakè—the Concam of the moderns, the Kemkem of the Arabian geographers, and the Pirate Coast of all. I assume, then, the Sefekreienai of the Periplus for the Burnt Islands, or Vingoria Rocks of the Charts; and the two islands of the Aigidii and Kainitai, for Goa and Murmagon. Kainitai is said to lie close to the Chersonese¹⁴⁴; and one only Chersonese I find on the whole coast, which is Salcet, surrounded almost by the Sound of Goa, and the River Nerengal, and so conspicuous, that it may be considered as a certain proof of a position not to be resisted. It is true that the Angedives are not forty miles from Goa; and the resemblance of Aigidii to Angedives, has induced a general belief that they are the same; but the mention of two islands distinctly, and the vicinity of the Chersonese¹⁴⁵, preponderate against all similarity of names; and the boundary of the two provinces, which immediately ensues, added to the previous circumstances, makes the evidence complete.

¹⁴⁴ Κατὰ τὴν λεγόμενὴν Χερσόνησον.

¹⁴⁵ The appearance of a Chersonese is not so manifest in Rennell's Map, as in that of Orme; but the point off which the Angedives lie, cannot in any sense be deemed a Cher-

sonese, but a promontory only. Should I be mistaken, it is an error only of forty miles—moderate enough in comparison of seven hundred.

The Burnt¹⁴⁶ Islands, or Vingorla¹⁴⁷ Rocks, are a cluster not¹⁴⁸ very well known, till lately, in lat. $15^{\circ} 52' 30''$. They lie six or seven miles off shore, on a tract inhabited by a piratical tribe called Mulwaans, and are reckoned twenty¹⁴⁹ in number, seven of which are small islets, while many of the others are barely visible at high water; and there is a good channel between them and the main. The bare mention of such a group in the plural, with their relative situation in regard to the Islands of the Aigidii and the Kainîtai, seems to qualify them for the representatives of the Burnt Islands; while the Pirates, in their vicinity, adds the resemblance. Their distance from Goa is little more than thirty miles, and no other Island intervenes.

It is only the two islands of the Aigidii and the Kainîtai that I assign to Goa; that is, Aigidii¹⁵⁰ to Goa, and Kainîtai to Mur-

¹⁴⁶ The text is . . . *Τουανοί Σόας*. Εἶτα Ἐνοχρίματα λεγόμενοι νῆσοι, καὶ ἡ τῶν Ἀγιδίων, καὶ ἡ τῶν Καινῆτων κατὰ τὴν λεγομένην Χερσόνησον, καὶ δ' ἕξ τόποις ἰσθμῶ Πιπυρατοῦ. Καὶ μετὰ πάντων Αἰωνῆ νῆσος.

It seems as manifest here that ἡ τῶν Ἀγιδίων, and ἡ τῶν Καινῆτων, are joined, as that Αἰωνῆ is distinguished separately by μετὰ πάντων. D'Anville interprets Ἀγιδίου *birorum*, and not without probability; for goats were placed on uninhabited islands by ancient as well as modern navigators; but I have not found the diminutive Ἀγιδίων from ἀγίξ. Dive, an island, is written Διῶξ by Cosmas, and Αργὸς Ἰῶξ, or Ἀγιδῶξ, would be literally Goat Island.

¹⁴⁷ Sefekrénai, as I understand from Mr. Hamilton, signifies black rabbits. The caprice shewn by seamen in the names they assign to places, may excuse the introduction of the term. Whether the islets themselves lie crouching like these animals, or whether rabbits have been deposited here like goats on other uninhabited spots, for the use of navi-

gators, I have no means of ascertaining; but as trivial a circumstance as this may, some time or other, lead to the discovery of truth. The natives of the coast, no doubt, have a name for them: the title we give them is derived only from their vicinity to Vingorla, on the continent.

¹⁴⁸ Rennell's Memoir, p. 31.

¹⁴⁹ In the Oriental Navigator, p. 217. But there are seven principal rocks, or islets, in C. Huddart's Chart, by Mr. Dalrymple. There are also plans of Vingorla and Sinderdoog, the residence of the Mulwaans or pirates of Melupdy, among Mr. Dalrymple's drafts of places on the coast of Malabar.

¹⁵⁰ Aigidii, or Aigidie, comes so near Angedive, that it is assumed by almost every writer on the subject; and if it had preceded the Chersonese, instead of following it, would have been conclusive. But the point off which the Ange-dive lies, would, I think, be called a Chersonese by no ancient author.

magon; for Leukè, or the White Island, is separated from them by the text, and I have little hesitation in carrying it to Angedive. This disposition would account for all the islands upon this part of the coast, and place them in a relative situation perfectly consistent with the Journal. Kainitai cannot be questioned, if its vicinity to the Chersonese be considered; but the assumption of Leukè for the Angedive I would leave to the determination of any Navigator acquainted with the coast, who could ascertain whether it has any appearance of whiteness¹⁰¹ to distinguish it from other Islands.

The Angedives signify five islands; and Ptolemy has a Heptanesia, or group of seven islands, intended to represent this cluster, but so misplaced, as not to admit of any conclusion from it. One of these only is inhabited and fortified¹⁰² by the Portuguese, who have a garrison here composed of malefactors exiled from Goa; the others, whether more or less than the numbers which give it different names, are only islets or rocks. The passage between the principal island and the main is clear; and this affords it a prominence, which may have entitled it to the notice of the Periplus.

In the Sound of Goa, there is one principal island on which the city itself stands, with others so small, that they are little noticed: all which had afforded a place of refuge for such Mahomedans as had been driven from the Hindoo ports or cities on the continent, before the arrival of the Portuguese. Here the Mahomedans of the peninsula collected, who intended to embark for Judda, and perform their pilgrimage to Mecca. This alone was sufficient to make it a

¹⁰¹ I have myself found no white island nearer than the Sacrifice Rock near Calicut, which is 270 miles from C. Ramas. That rock is white with the mate of birds, but it is too distant to enter into any arrangement

with the part of the coast where we now are. Capt. H. Cornwall's Remarks, p. 26. mention this whiteness, as I am informed.

¹⁰² Oriental Navigator, p. 221. It is a mile long, but not so much broad.

port of importance ; and the more so, as we may conclude that the Hindoos had no influence and no share in the government ; for the Mahomedans had established themselves here, as the fugitives on the coast of the Hadriatick had done on the islands which now compose the city of Venice ; and they seem, like them, to have formed a community, which was distinguished by the name of Tricurii, or the Thirty Villages. The Portuguese, from their first arrival, had conceived a design of occupying this position : they first built a fort¹⁵⁹ on Angedive, and in 1510 Goa itself was taken by Albuquerque ; it was recovered again by the Mahomedans the same year, and finally retaken by Albuquerque in 1511. Under his auspices, it became the head and centre of all the Portuguese settlements in India ; and is still in their possession, after a period of three hundred years.

D'Anville is disposed to place Goa at Nelkunda ; that is, at the southern, instead of the northern boundary of Limúrikè ; but he is not satisfied with his own supposition, and abandons it. He fixes, likewise, Aigidii at the Angedives ; to which Paolino assents, without reflecting that there must be two islands together, connected with a group preceding and a single island following. These circumstances cannot accord with the system they have adopted ; but are perfectly consistent with the Periplús, and the disposition I have assumed. I have no predilection to this arrangement, because it is my own ; but I have tried the Journal by the best charts I have of the coast, and can find no points, either to the north or to the south, which will correspond ; and therefore conclude, that by this every thing is done for obtaining the truth that the text will admit.

¹⁵⁹ Almeyda, according to D'Anville (*Antiq. de l'Inde*, 110), laid the foundation of a fort.

But the division of the provinces remains still to be considered; and the termination of Concan is fixed by our charts at Cape Ramas, about two-and-twenty miles south of Goa; near which is Carwar, once an English factory in the territories of the Soonda Rajah; and the jurisdiction of this prince is said by Capt. Hamilton to extend from Cape Ramas, about fifteen leagues along the coast to Meerzee, or Meerzaw. This tract, including the Angedive and the cape off which it lies, I should wish to comprehend within the limits of the ancient Ariakè, and I think the modern boundaries favour the conclusion; for the kingdom of Canara does not commence but at the termination¹⁴ of Soonda; and though I cannot ascertain that the coast, north of Goa, called the Dekan, or south of it, called Soonda, are considered as parts of Concan; yet it is very clear, that the limit of Soonda and Canara is at Meerzee. At Meerzee, therefore, I assume the boundary between Ariakè and Limúrikè, guided by the Leukè of the Periplus, as the last place mentioned in Ariakè, and by Naora, as the first place mentioned in Limúrikè. This assumption, if correct, will reconcile the positions on the whole coast, from Goa to Cape Comorin; and if erroneous, confines the error within the distance between Murmagon and the Angedive: an error, at the utmost, of forty¹⁵ miles; moderate in comparison of the disagreements between d'Anville and Paolino; and causing no disorder in the arrangement of the provinces, but such as may be remedied by the most transient reference to the map.

The province of Ariakè was under the government of Mámbarus,

¹⁴ See De la Rochette's Map of Hindostan, Fragments, p. 73.

which agrees with C. Hamilton, and Hamilton remained some time at Carwar. See vol. i. 259. Orme likewise fixes it at Mirzeou. Hist.

¹⁵ Rennell makes it fifty miles, De la Rochette thirty-five, and Orme the same number.

and Limúrikè, which we now enter upon, was subjèct to Kepróbotas, comprehending the modern kingdom of Canara, and terminating on the south with the kingdom of Pandíon, which answers to the Malabar of the present day. The ports of this province will be treated of in their regular order; but before we descend to particulars, let us survey these four divisions of the coast, as they stand in the Periplus, corresponding with the present distinctions of the provinces; let us add the possibility of assigning the respective limits in both instances, and then ask ourselves, whether this is not a more rational way of interpreting our author, than by searching for a resemblance of names, which has misled so great a geographer as d'Anville; and in which, if it were reasonable to indulge, many new similarities might be discovered, that have not yet occurred to any one that has prosecuted the inquiry.

The province of Barugáza, answering to Guzerat, under the power of Minnagar, commencing at the Indus and terminating at the Tapti, is the first. The second is Ariakè, subjèct to Mámbarus; a sovereign whom we might compare to Sevagi, or a Mahratta power of the present day; bordering north on Guzerat, and south on Canara; of the same extent as the Pirate Coast, and distinguished at this day as fixing the same boundary to the Mahratta language, as to the province, ancient and modern. Limúrikè is the third, with its northern confine at Cape Ramas, and its southern previous to Nelkunda; corresponding with Canara, which commences at the same point⁵⁴, and has its southern limit at Decla. And lastly, the kingdom of Pandíon as a fourth division, equivalent to Malabar Proper, succeeded by Paralia and Cómari, and terminating with the Pearl Fishery and Ceylon. Let us, I say, contemplate

⁵⁴ Orme, Hist. Frag. p. 73.

this general picture of the whole coast, from the Indus to the southern cape of the peninsula; a space comprehending fourteen hundred miles, through the whole of which the ancient divisions are found consistent with those of the present day; and we cannot, under all these circumstances, fail to acknowledge the information of our author, and the importance of the work he has left for our instruction.

After this comprehensive view, the contention which may arise about the appropriation of individual names to particular ports, towns, or stations, is a matter of very inferior consideration: my conjectures or assertions may be disputed as well as those of others, who have trod the same ground; but till the great outline which I have traced can be obliterated, the service rendered to the science must be acknowledged.

Many of the gentlemen now in India are possessed of minds illuminated by education, and stimulated with a desire of enlarging the bounds of science, or assisting the inquiries of literature: these, in their respective situations, must have acquired a local knowledge, which cannot be obtained by those who draw their information from written evidence alone. To such men as these I have made a constant appeal, and submit the deductions I have traced to their correction; particular errors there may be, but by the general division of the provinces, I leave a guide to all that may be disposed to further these inquiries, and a rule for rectifying every thing in which I may have been mistaken. Still the investigation should be made, not by those, like Fra Paolino, who drew every thing to Malabar, because he had resided thirteen years in the province, but by men of enlarged mind and general information, qualified, like Capt. Wilford, with classical learning, and a knowledge of the native language;

guage; enabled to direct their view to ages past as well as present; and possessed of comprehensive faculties, which can embrace the general state of India, as well as the particular province in which they happen to have been employed. From men of this stamp I shall experience every indulgence; and if they should acknowledge that light has been thrown upon one of the most obscure objects of inquiry left for our discussion by the ancients, I shall rest satisfied with the result of my labours.

IX. LIMÚRIKÈ.

How d'Anville could be persuaded that this province was the representative of Concan, is inexplicable; for Pliny, whom he chiefly follows, says expressly, that Muziris was not on the Pirate Coast, but in its neighbourhood only; and the Pirate Coast is as clearly defined by all our ancient authorities, as by the modern accounts. Cape Ramas, as its northern boundary, and Nelkunda, in the territory of Pandion, as its southern limit, mark the confines so precisely consistent with Canara, that we cannot be mistaken. These likewise are the limits of the language¹⁵⁵ at the present day, which is a distinct dialect from that of Malabar on the south, or the Mahratta language on the north; and this is a characteristic less fluctuating than any division of the country that conquest might produce.

The ancient kingdom of Canara embraced a large part of the peninsula, the capital of which was Bejapoor¹⁵⁶; but the modern

¹⁵⁵ La lingua Canara, che corre nel regno of the dialects have no v, and others no b; Canara dal monte d'Illy fino a Goa. Paulino, j and z are likewise perpetually interchanged or confounded.

¹⁵⁶ Commonly written Viziapour. Several

district of that name was chiefly on the coast, with its capital above the Ghauts. It was an independent state or kingdom, till it was reduced by Hyder Ali in 1765³, and it was at that time governed by a queen¹³⁹, who had driven out the rajah, a child of nine years old, in favour of her brother. Under pretence of assisting the deprived rajah, Hyder entered the country, laid siege to Bednoor and took it, and, in a very short time after, sent the queen with her brother, and the young rajah, into confinement in one of his hill forts near Bangaloor. Bednoor, the capital, is rendered famous by the defeat and death of the unfortunate General Matthews in 1783; and was considered by Tippoo Sultan as a fortress of sufficient strength to confide to it a very large portion of his treasures. The conquest of Canara gave Hyder and his son a communication with the coast, and opened the way for farther incursions to the south, which were prosecuted to the devastation of Calicut and Cochin, and directed against Travancoor, when they were fortunately checked by the assistance of the English. Tippoo Sultan had likewise the ambition to become a maritime power: he built a frigate, and fitted out a fleet of the country vessels of war, with which he undertook an expedition to the Maldives, and added to his titles, that of Lord of the Thousand¹⁴⁰ Islands. Had he succeeded in his designs, he would have extended his dominions from Mysore to Cape Comorin, and extinguished the last remains of Hindoo government in the peninsula, except the Mahrattas.

This short recapitulation is not foreign to our subject; for though we hear much in history of the mild and gentle spirit of the Hindoos,

¹³⁹ It was regularly governed by a queen. ¹⁴⁰ The natives style their sovereign, King C. Hamilton's Account of East Indies, vol. i. of 12,000 Islands. Harris, vol. i. 677.
P. 279.

they were as much enamoured of conquest as the Mahomedans; and in the age of the Periplus, a king of Mádura, (the sovereign of ¹⁵⁹ Pandi-Mándala, the Pandion of the ancients,) had extended his power from the eastern to the western side of the peninsula, and was master of Malabar when the fleets from Egypt first visited the coast. The king ¹⁶⁰ of Limúrikè, and the king of the country south of that province, that is Pandion, are said both to have their residence inland by our author; and Pliny adds, that Pandion lived *far* inland, at the city of Modúta, which Ptolemy calls Modóora, the metropolis of Pandion. The conjecture, perhaps, will not be admitted; but it seems as if the power of Pandion had been superseded in Malabar, between the age of the Periplus and Ptolemy; for Ptolemy reckons ¹⁶¹ Aii next to Limúrikè on the south, and takes no notice of Pandion till he is past Cape Comorin, and comes actually to Mádura, on the eastern side of the peninsula. Not that his east and west are on the two faces of the angle, for they are on a line; but he is relatively right, though essentially mistaken.

In the limits of Limúrikè, Ptolemy is nearly in correspondence with our author; for he commences with Tundis, omitting Naoura, and finishes with Bécare, which is close to Nelkunda, and Nelkunda in both is the first port of Malabar: Ptolemy, indeed, preserves many names more ¹⁶² than the Periplus; for he seems, upon all occasions, to insert every name he could collect; and the merchant

¹⁵⁹ The natives, I am informed, still distinguish themselves by the name of Pandi or Pandoo.

¹⁶⁰ The king of Canara might live above the Ghauts, as well as the queen that Hyder destroyed by the capture of Bednore.

¹⁶¹ Many more appear in Capt. Hamilton's account than we have occasion to notice at

present. C. Hamilton throughout considers Canara as the richest country of the coast; but plundered by the Mabrattas, Malabars, and Arabs. Such a work as the Oriental Navigator must notice every place; a merchant, only those where he traded. This is exactly the difference between Ptolemy and the Periplus.

specifies those only that were frequented for the purposes of commerce. He has only three in this province—Naora, Tundis, and Mooziris; all distinctly marked as subject to Kepróbotas, and in a different district from Nelkunda, which was in the kingdom of Pandion.

It is remarkable, that not one of these three places is accompanied with any local circumstances sufficient to determine their position; but Mooziris is five hundred stadia south of Tundis, and Nelkunda at the same distance south from Mooziris. If therefore we could fix Nelkunda, though in a different province¹⁶¹, we ought to measure back these twice five hundred stadia, as the only means of direction that we possess.

The following arrangement, therefore, I offer, with all the diffidence that the obscurity of the Journal demands: I have persuaded myself that it is correct; but I should not be surprized if my deductions should appear inconclusive to others. I have followed the only clew I could discover; and if any one, who has paid attention to the subject, should find better ground to stand on, I shall readily relinquish my own, and yield to superior information.

For the position of Nelkunda, I am obliged to Major Rennell, who is the first geographer, as far as I have learnt, who has fixed it at Nelisuram. That he is correct in this, I am persuaded, admits not of presumptive proof only, but demonstration:

For we may first observe, that Nelisuram is not only a mart itself, but gives name to a district. This district is not in Canara, but

¹⁶¹ Nelliceram is in a different province, for p. 289. who makes Decully, or Dekla, the the boundary wall is at Dekla. De la Rochette.—See also Capt. Hamilton, vol. i.

Malabar: the frontier of Malabar, the boundary wall¹⁵³ which runs from the sea to the foot of the Ghauts, is at Dekly, or Dekully, immediately north of Nelisuram. This wall is still visible; and this in a peculiar manner makes it correspond with Nelkunda, which was the first port in the kingdom of Pandion.

2. A second proof may be derived from the name itself, which Orme writes Nella-feram. Nella, according to Paolino¹⁵⁴, signifies *rice*, and Ceram a *country*; and if Nella-ceram be the country¹⁵⁵ of Nella, Nel-kunda must be the fort of Nella, resembling Gol-conda, Inna-conda, or¹⁵⁶ Conda-poor, on this identical coast of Canara.

3. But the last and best testimony is that of Major Rennell himself¹⁵⁷, who mentions "a large river, named Cangerecora, whose course is from the N. E. and which falls in about four miles to the north of Mount Dilla; previous to which its course is parallel to the sea-coast for about eleven miles¹⁵⁸, being separated only by a spit of land. The forts of Nelisuram, Ramdilly, and Matte-loy, are situated on this river, which is joined by several others that descend from the Ghaut mountains, which in this part approach within twenty-two miles of the coast. I cannot help con-

¹⁵³ Orme. D'Anville, *Antiq. de l'Inde*, p. 112.—"The coast of Canara extends to Declah, eight or nine leagues north of Dilly." P. 220. 223. *Oriental Navigator*.

¹⁵⁴ P. 170.

¹⁵⁵ Batecolli, between Onoor and Baredoor, has the same meaning. Bate or Pate rice—Coidu country. Vossius ad Mel. lib. iii. 7.

¹⁵⁶ I have been treated with severity by the Orientalists for encroaching on their province; but in India, every name of a place is significant; and perhaps in every other country, if we could trace the language which first assigned them their respective titles. In this

instance, however, the etymology is not mine, but deduced from an Oriental Grammarian, and I am only accountable for the deduction. I ought to add, that, according to his mode of interpretation, Coonda-poor is identically Cassleton.

¹⁵⁷ *Memoir*, p. 28.

¹⁵⁸ Capt. Hamilton calls it a fine, deep river, which keeps its course along shore eight leagues, at a bow-shot distance. It disembogues itself by the foot of Mount Dilly, over rocks and sands, in a channel half a league broad. Vol. i. p. 290.

“sidering this Nelifuram, which is situated twelve miles up the
“river, as the place meant by Nelcynda or Melcynda, by Pliny, and
“Ptolemy—a place visited by the Egyptian and Roman ships.”

Let us then observe, that the Nelkunda of the Periplus lies actually the same twelve miles up the river; and after this ask, whether all these circumstances can be accidental? for if the correspondence is evident, it is but reasonable to assume this proof as a demonstration.

It is with the most anxious solicitude that I have concentrated all these peculiarities to a point; because I shall want all the authority of so able a geographer, to support the conclusion I shall draw from his premises; and though he supplies me with a basis, I am not certain that he will be pleased with the superstructure I shall raise on his foundation; for, grant that Nelkunda is Nēji-ceram (which from every kind of evidence I am persuaded that it is), and it will immediately follow, that Onoor¹⁶⁹, Barceloor, and Mangaloor, are the

NAOORA, TUNDIS, AND MOOZIRIS, OF THE PERIPLUS.

These are the only places mentioned in Limúrikè; they are the principal places of Canara to this day. Naoora is the first port of Limúrikè, as Onoor is of Canara; and Mooziris¹⁷⁰ so precisely the
last,

¹⁶⁹ The English generally write and pronounce Onore, Mangalore, &c.; but Paolino says, *ur* signifies *borgo*, a town, and the Italian *ur* is the English *oor*.

¹⁷⁰ Cosmas informs us, that Mangaruth [Mangaloor] was, in the sixth century, one of the principal ports for the exportation of pepper. The mention of this article is an acquisition of evidence; but the ascertaining the

antiquity of the name, as far back as the sixth century, is still more in our favour. See Cosmas in Thevenot, p. 3. & Nova Collectio Patrum, in fine. Mangaloor is pronounced Mungloor by the natives, according to Capt. Moore, Narrative, p. 471. A and u are perpetually interchanged in Persic and Arabic. Paolino informs us, that Māngul-ur signifies *the Town of Felicity*, and Mangala-puri, as it

last, that we have been obliged to encroach upon the succeeding province before we could discover it. But the discovery will be now complete; for the Periplus places Mooziris fifty miles north of Nelkunda, Tundis fifty miles north of Mooziris, and, if we assume a third fifty north to Naora, we have the whole three ports as precisely as we can open the compasses. I request the reader to refer this inquiry to the maps of Rennell, de la Rochette, d'Anville, or any other rather than my own, to remove all suspicion of accommodation, and to assure himself of the certainty, not upon my assertion, but his own conviction. It is true that I am directed to Onoor, in some degree, by its similarity in sound to Naora, but much more strongly by considering that Naora is the first port in Limúrikè, as Capt. Hamilton writes that "Onoar" is the northernmost port of Canara." And if these three ports are established by a reference to Nelkunda, some credit is due to a discussion which ascertains the position of MOOZIRIS¹²; a point on which all are at a loss, and no two geographers¹³ fully agreed.

There is a river at each of these ports, and in them the whole trade of the country has in all ages been carried on. The former wealth of the province is still evident, from the remains of tanks,

is sometimes called, *the City of Felicity*: Tippen changed it to *Jumal abad*, *the Abode of Elegance*; and if future writers were to adopt the last change, Mangalour might be hereafter as difficult to discover in Jumal abad, as it has hitherto been in Mooziris.

¹² Vol. i. p. 275.

¹³ The relative importance of Mangalour, in modern times, qualifies it for Mooziris above any other place in Canara. "Mangalore is the greatest mart for trade in all the Canara

dominions: it has the conveniency of a river, produced by three that come into it by different ways, from the south, the east, and the north. . . those three rivers join about a mile from the sea, and at Mangalore disembogue at one mouth." Capt. Hamilton, vol. i. p. 82.

¹⁴ Mooziris is fixed at Mirzeon by Rennell, at Vizindroog by d'Anville, at Calicut by Hardouin and Mercator, and left undetermined by Robertson and Paulino.

pagodas, and public buildings, still existing. Of Naoora¹⁷⁶, indeed, no particulars are mentioned except its name; but Tundis¹⁷⁵ is said to be a village in the kingdom of Kepróbotas; Moozírís was under the same sovereign; and here, it is added, that there was a great resort of the native vessels from Ariakè or Concan, as well as of the Greek fleets from Egypt. Another particular recorded is [that the coast was so near a right line] that whether you measured the distance between Tundis and Moozírís from river to river, or from the passage by sea, the distance was equal. The same circumstance is repeated in regard to the distance from Moozírís to Nelkunda: it is five hundred stadia, says our author, or fifty miles, whether you measure by land or sea, or by the space between the two rivers.

Pliny¹⁷⁶ does not mention a river at Moozírís, but observes, that it was no desirable place of trade, not only on account of the pirates in the neighbourhood, but because the ships rode at a distance from the shore in the open sea, and boats were employed for the conveyance of their lading, both on the delivery and the reception. The merchants had therefore tried a more convenient port, called Necanydon, where they obtained pepper from a district called Côt-

¹⁷⁵ The text stands thus:

Ἔστι Νάοορα καὶ Τύνδης τὸ πρῶτον ἡμετέριον τῆς Ἀριμακῆς, καὶ μετὰ ταύτας Μοζίρις . . . βασιλείας δ' ἔστιν ἡ μὲν Τύνδης Κεπρόβοτα . . . ἡ δὲ Μοζίρις βασιλείας μὲν τῆς αὐτῆς . . . κατὰ δὲ πρὸς ποταμῶν, ἀπέχοντα ἀπὸ μὲν Τύνδης, διὰ τὸ ποταμῶν, καὶ διὰ θαλάσσης, ὅμοιος πειρασίας, ἀπὸ δὲ τῆ [ποταμῶν] κατ' ἀπὸ τὸ ἴσον.

Where I insert ποταμῶν, Salmastius reads ἡμετέριον; and he has placed Tundis at the mouth of the river of Moozírís; but where can we find a river navigable for fifty miles on this coast? which must be the case if Tundis is

the road, and Mooziris the mart, fifty miles up the stream. Plin. Exer. p. 1185. Mooziris may easily lie two miles from the river. This measurement by the rivers induces Pausanias to carry these three ports to the inlets between Calicut and Cochín. This supposition has some weight.

¹⁷⁶ D'Anville fixes Tundis at Dunda-Rajapoor in Concan.

¹⁷⁵ The text of Pliny is very corrupt. The expression is, gentis Necanydon, the country of the Necanides; but the mention of Decare with it proves it to be Nelkunda.

tona. This is the pepper of Cottonáxa mentioned in the Periplús, and assigned by every writer to the province of Canara. There is, upon the whole, no essential difference in the two accounts, except the mention of pirates by Pliny, not noticed in the Journal; but unless Hydras could be discovered, we cannot ascertain their position: it is supposed to be the Nitria of Ptolemy, the last place upon his Pirate Coast; and though that is not *near* Mangaloor, doubtless the pirates roved on the coast of Canara in former ages, as they do now, and pirates there have been at d'illi and the Angedive, as well as in Concan.

Moozírís is written Modírís, Moodírís, Moondírís, Zmirís, and Zymírís, by different authors, which might lead some inquirer, on the spot, to farther discovery. Both the Periplús and Pliny certainly consider it as an inferior port to Nelkunda; for no account of the imports or exports is given here, but at Nelkunda a copious catalogue. That Moozírís continued a place of resort in later times, we may conclude from the Peutingerian Tables, which place there a temple of Augustus, that is, of the emperor of Rome; for at the date of the tables, in the time of Theodosius, every emperor was Augustus; and that the Greeks or Romans should have a temple here, is no more extraordinary than that the Christians should have churches in Travancoor, or that the Arabs should have established their superstition in Ceylon, which Pliny assures us was true.

Dodwell has built some arguments on this circumstance, and on the names of the kings, which are the same in Ptolemy, Pliny, and the Periplús, in order to bring down the date of this work to the time of Commodus and Verus. But Paolino affords a solution of this difficulty, which is perfectly satisfactory if his etymology be

true; for, he observes that Kepróbotas is written Celcbothras and Ceróbothrus; and he informs us that Ceram signifies a *country*, *region*, or *province*, and botti, a *governor*; so that Cerambotti is as manifestly the *head* or *sovereign* of a *province*, as Ceram-perumal is *king of the country*, compounded of Ceram, a *country*, perum¹⁷⁷ *great*, and aal *personage*, the *great personage* or *sovereign* of the kingdom. And as Ceramperumal was the founder of the kingdom of Malabar in the year 907¹⁷⁸ of our era, there is much probability in this interpretation. If this etymology be admitted, it accounts for the name of Ceróbothrus in Limúrikè, and that of Pandion in Malabar, not only in the different ages of Pliny, Ptolemy, and our author, but for as long a period as these divisions of the country continued undisturbed; for Mádura is still known in India as having the ancient title of Pandi Mándala, *the kingdom of Pandi*, or the Pandoos; and Pandavais the founder of the sovereignty, according to the Bramins. Pliny¹⁷⁹ therefore was mistaken, in assuming a general title for a proper name, as well as Ptolemy, and the author of the Periplus.

X. KINGDOM OF PANDÍON, OR MALABAR.

THE native appellation of Malabar, we are informed by Paolino, is Kerula Ragiam, the Kingdom of Kerula, or Malayálam, the *Mountain Country*, derived from the Ghauts which bound it inland, and are visible from a great distance at sea. He adds, that Malan-

¹⁷⁷ Governor Duncan joins in this interpretation of Perumal. Af. Ref. vol. v. It is a curious and valuable paper.

¹⁷⁸ There is another date 805. D'Anville, 114.
¹⁷⁹ Regnabat ibi, cum hæc proderent, Celebothras. Plin. vi. 23.

gara is an Indian term corrupted into Malabar, and ought not to be deduced from the Arabic mala, a *mountain*, and bahr, a *coast*. It is not necessary to assent to this; because, when the Europeans first visited India, after the discovery of Gama, they derived their information from the Arabs, and consequently adopted their terms. At that time Calicut was the grand mart of the Oriental world; for here the trade from China and Malacca met the Arabs and Persians, who brought the produce of their own countries, as well as several articles which they procured from Europe; and though some Arabian vessels penetrated to Malacca, or even China, and some Chinese merchants, as it is said, extended ¹³⁰ their voyage to Arabia, or to Keish and Shiraff, in the Gulph of Persia, the general point of intercourse was Calicut. When the Portuguese reached the eastern coast of Africa, they were directed neither to Surat or Barroache, but to this city; and here they found the Arabs settled in the country so powerful and numerous, as to obstruct their commerce, and traverse all the plans they had conceived. According to Bartheta ¹³¹, there were not less than fifteen thousand of them settled in this place only, besides numerous bodies of them on the coast, in Ceylon, and in Coromandel.

The influence they had in the country may be calculated, not only from this instance, but from the revenue their commercial transactions produced; from their readiness to engage in all the services of war, policy, and government; from the spirit of adventure which appears in all their conduct; and above all, from the

¹³⁰ This opinion is founded on the report of Renaudot's Arabs, and will be considered hereafter.

¹³¹ The evidence for their power and num-

ber is also very clear from M. Polo, and their employments in trade and war. See Lib. iii. Ceylon, and p. 54.

desire of extending their religion, as well as promoting their individual interest. The character under which Paolino describes them at the present hour, would probably have suited them in every age:—"They"¹³ are a robust race, wearing their beards long and their hair neglected; their complexion is dark, and their clothing consists of nothing more than a shirt and trowsers of cotton. They are active and laborious; seldom appearing in the streets but in a body, and always armed. They sleep in tents or booths, dress their victuals in the open air, and work, during the night, by the light of the moon. They assist one another in lading and unlading their ships, and they drink plentifully of toddy and arrack. Upon receiving the least affront, the revenge is common to all." Their trade is still considerable"¹⁴ both at Cochin and Calicut; for not less than an hundred ships are employed in this trade, from Maskat, Moka, and Judda; and the commodities they purchase are of a better quality"¹⁵ than those obtained by the Europeans; because the Europeans, either by their power, or by contract, have bound the native government to furnish them with pepper and other articles at a regulated price.

The Chinese no longer frequented the port of Calicut when the Portuguese arrived in India: they had been ill-treated by the Zamorin, probably at the instigation of the Arabs, and for the same reason which excited their jealousy of the Europeans; and after a fruitless attempt to revenge themselves, the Chinese ships came no longer to Malabar"¹⁶, but to Malapatam only in Narfinga, on the coast of Coromandel.

¹³ Paolino, p. 84.

¹⁴ Paolino says, they make two voyages in a year; but I do not understand how this can

be, if they sail with the monsoon.

¹⁵ Cæsar Frederick in Hackluit, p. 223.

¹⁶ Barthema in Grynæus & Ramusio.

Now this trade with the countries farther to the east, and the interest which the Arabs had in the communication, is in full correspondence with the account of Pliny¹⁶⁶ in the first century, with Ptolemy in the second, with that of Cosmas in the sixth, with the Journal of the Arabs (published by Renaudot) in the ninth, with the experience of Marco Polo in the thirteenth, and with Nicola di Conti, sixty years previous to the arrival of the Portugueze in India.

It appears from Pliny, that the Arabs were so numerous in Ceylon, as to have occupied the country below the Ghauts, like the modern Europeans; for their superstition had prevailed over that of the natives on the coast. He adds, that the Seres¹⁶⁷ were known in that island by means of the intercourse which commerce produced; and that the father of the rajah who came upon an embassy to Claudius, had been in their country. (Something like this will appear hereafter in the Periplus.) And that a regular communication was open between India and Malacca, there can be no doubt; because Ptolemy has fixed a port on the coast of Coromandel, from which the fleets sailed which went to Chrusè, or the Golden Chersonese. Here we may fix the limit of ancient geography; and whether we chuse to carry this trade to China, as some have supposed from the name of Sinæ Thinxæ, and Seres, or whether we fix it at the peninsula of Malacca, it is in effect the same; for in that peninsula there have been, in different ages, the kingdoms of Tonquin, Cochin China, Pegu, Siam, and Ava; all partaking of Chinese manners, habits, and customs, and all furnishing, in some degree, the commodities we now pro-

¹⁶⁶ Lib. vi. cap. 22.

¹⁶⁷ Pliny says, moreover, Seres ab ipsis aspicit; as if the coast of the Seres were in sight. But Salmassius proposes reading, ultra

moutes Emodos Seras quoque ab ipsis aspicit, notos etiam commercio; meaning that the Ceylonese went by land into Tartary, and so to China.

cure in China. How the report of these countries, indeterminate as it was, reached Greece so early as the age of Eratosthenes¹⁰⁸, is a great problem, not easy to resolve; but that in later times some merchants had been induced, by interest or curiosity, either to attempt the voyage, or to sail on board the native ships, is highly probable. That all knowledge, however, beyond Ceylon was doubtful and obscure, is undeniable; for here the marvellous commences, which is constantly the attendant upon ignorance; and in whatever author it is found, we may be assured he has no certain information on which he can depend.

Within the limits of Ceylon all the general concerns of commerce were certainly confined, in the age when the Periplus was written; and whatever might be the extended attempts of the Arabs, very few of the vessels from Egypt ever reached that island. Nelkunda was the Calicut of their day; and standing in the same country, and affording the same commodities, they procured here for the market of Alexandria the drugs, spices, and other precious commodities, which have ever been in request throughout Europe.

At Nelkunda let us now pause, written Melinda¹⁰⁹ by Ptolemy, Melkunda by his commentators, Necanidon by Pliny, Neakyndon by Hardouin, and Nincilda in the Peutingerian¹¹⁰ Tables. It is said to

¹⁰⁸ If Eratosthenes derived all his knowledge from Timosthenes, as Marcian informs us; Timosthenes, who was sent down the coast of Africa by Philadelphus, must have acquired his information either there or from Arabia. But the Thinx are mentioned in Aristotle's *Treatise de Mundo*; and if that work be really Aristotle's, it proves that the Golden Chersonese had been heard of in the time of Alexander.

¹⁰⁹ D'Anville has found an Ophir in Arabia,

connected with a Sefarck el Ziage on the coast of Africa, and a Sefarck el Hindé in India. Would not the same speculation discover a Melinda on the coast of Africa, and a Melinda in Malabar?

¹¹⁰ It is a very singular circumstance, that the Peutingerian Tables should have the same names as the Periplus on this coast, but reverse them; for as they run Taundis, Muziris, Nelkunda, in the Journal, they stand Nelkunda, Tyndis, and Muziris, in the Tables, with

to be the same as Becarè, by Pliny, and near Barákè, or Ela-Barákè, by the Periplùs. That is, Barákè is a village at the mouth of the river, which, joined with Ela, cannot fail to remind us of Eli, as it is written by Marco Polo¹⁰¹, the d'Illi, or d'Illa, of our modern charts. D'Illi is one of the most conspicuous points on the coast, and, as far as I can discover by the maps, the only remarkable mountain close to the shore. This I had supposed to be called Mount Purhus in the Journal; but if Purhus is to be interpreted as a Greek term, it signifies the *Ruddy Mountain*¹⁰²; and I have since learnt, that d'Illi has not this appearance, but that there are heights both to the north and south, which still bear the title of Red Cliffs, and which will be noticed in their proper place. The mouth of the Nelisuram river, or Cangerecora, at Ramdilli, is placed by Rennell almost close to the mountain; and¹⁰³ Ram-d'Illi¹⁰⁴ again contains the name of Ela, and is manifestly the Ela-Barákè of the Journal.

At Barákè the vessels rode till their lading was brought down from Nelkunda. It seems by the text as if the navigation of the river were safe, and that the ships went up to the city to deliver their cargo, and then came down to Barákè to receive their lading

with Blinks, a corrupt reading for the Elanki of Ptolemy, and Colchi Sindorum, for the Kolkhi of both. There is mention likewise of a temple of Augustus, or the Roman emperor, and a lake at Muziris. These circumstances, however erroneously stated, still tend to prove the continuance of this commerce, from the time of Claudius or Theodosius—a space of above three hundred years; and a probability that the Roman merchants had settled a factory at Muziris, as they would scarcely

have built a temple there, without some sort of residence in the country.

¹⁰¹ It is written Eli, and d'Eli, in Bergeron's translation; Deli, in Ramusio.

¹⁰² Τὸ Περρὺν ὄρος.

¹⁰³ Ram is a common adjunct, signifying ; as, Ram-Rajah.

¹⁰⁴ D'Illi is the orthography of Paolino; Dilla, of Rennell; Deli, Delhi, and Delee, are found in different charts; and Eli, in Marco Polo.

in return; if so, it is a presumption that they returned deeper laden than they arrived, as most vessels from Europe do at the present day. But there is some confusion in the text, and one corruption¹⁹⁵ at least: in modern¹⁹⁶ accounts, the river itself is described as large and deep, but obstructed at its mouth by shoals and sand-banks. The approach to this coast likewise is discoverable, as well as that of Guzerat, by the appearance of snakes upon the surface of the sea, which are black, shorter than those before mentioned, more like serpents¹⁹⁷ about the head, and with eyes of the colour of blood. This is a circumstance confirmed by Paolino, who lived thirteen years in the country, and who accounts for it by supposing that they are washed down by the rivers in the time of the rainy season.

The port of Barákê, or Nelkunda, is much frequented on account of the pepper and betel which may be procured there in great quantities¹⁹⁸. The principal Imports are,

Χρήματα πλείστα,	-	-	Great quantities of specie.
Χρυσόλιθα,	-	-	Topazes.
Ίματισμὸς ἀπλῆς ἢ πολὺς,	-	-	A small assortment of plain Cloth.
Πολύμιστα,	-	-	Rich cloths, of different colours?
Στίμμη,	-	-	Stibium for colouring the eyes.
Κοράλλιον,	-	-	Coral.
Ἰαλὸς ¹⁹⁹ ἀργή,	-	-	White glass.
Χαλκός,	-	-	Brass.

¹⁹⁵ Διὰ τὴν τὸν ποταμῶν ἀλματα καὶ διάπλασι ἔχει διαφύσι. It does not appear what ought to be substituted for ἀλματα.

¹⁹⁶ In Capt. Hamilton; and it is remarkable that Marco Polo says, the ships of Mangi (China) that came here, loaded in eight days, or earlier, if they could, on account of the danger of the anchorage. Lib. iii. c. 26.

¹⁹⁷ Ὅφεις . . . Ἰνδοιστινῶν τὴν κεφαλὴν. What is the distinction between ὄφεις and δράκων? It seems here, *crested*.

¹⁹⁸ Διὰ τὸν ὄγκον καὶ τὸ πλῆθος τῶν πικρίων καὶ τῶν μαλάκων.

¹⁹⁹ Rendered by Hudson, Vitreum rude; but ἀργή, *white*, is added to it, to distinguish it from vitrum in general, which was blue.

Κασσίτερος,	-	-	-	Tin.
Μόλυβδος,	-	-	-	Lead.
Οἶνος ἢ πολὺς,	-	-	-	A small quantity of wine ²⁰⁰ ; but as profitable as at Barugáza.
Σανδαράκη,	-	-	-	Cinnabar.
Αρσενικόν,	-	-	-	Orpiment.
Σῖτος ὅσος ἀρκέσει τοῖς περὶ τὸ ναυκλήριον,	-	-	-	Corn, only for the use of the ship's company. The merchants do not sell it.

The Exports are,

Πέπερι ²⁰¹ μονογενῶς ἐν ἐνὶ τόπῳ τέτῳ γεννώμενον ²⁰² πολὺ καὶ λεγόμενον Κοττοναρικόν,	-	-	-	PEPPER, in great quantity, which grows only in this one place, and which is called the Pepper of Cottonara.
Μαργαρίτης ἰκανὸς καὶ διάφορος,	-	-	-	Pearls, in quantity and quality superior to others.
Ἐλέφας,	-	-	-	Ivory.
Ὁθόνια Σηρικὰ,	-	-	-	Fine silks.
Νάρδος ²⁰³ ἢ γαπανικὴ,	-	-	-	Gapanick spikenard: it is usually read Gangetick.
Μαλάβαθρον, ἐκ τῶν ἔσω τόπων,	-	-	-	Betel. from the countries farther to the east.

²⁰⁰ Σῖσαι δὲ ποσῶν ὄντι ἐν Βαρυγάζοις. Hudson has omitted this. The meaning here given is conjectural.

²⁰¹ Pepper, from the wealth it brings into the country, in Sanscrit is called, *the Splendour of Cities*. Paolino, p. 356.

²⁰² I think γενώμενον implies, the native growth of the country: it may signify only,

procurable there.

²⁰³ Νάρδος ἢ γαπανικὴ. There can be little doubt of the corruption here; because, at p. 36. the author himself writes Γαγγητικὴ Νάρδος, the spikenard procured at the Ganges; and there it is still procurable from Thibet, according to Sir Wm. Jones and Dr. Roxburgh. Asiatick Researches.

Λίθια διαφανῆς παντόια,	-	All sorts of transparent or precious stones.
Ἄδαμας, - - - -	-	Diamonds.
Ἰάκινθος, - - - -	-	Jacinths. Amethysts.
Χελώνη ²⁰⁴ ἢτε Χρυσονηπιωτικὴ καὶ ἢ περὶ τὰς νήσους θηρευομένη	-	Tortoise-shell, from the Golden Islands (or Maldives?); and another sort, which is taken in the islands which lie off the coast of
ταῖς προκειμένας αὐτῆς τῆς Λιμυρικῆς, - - - -	-	Limúrikè (the Lackdives).

The particulars of these cargoes suggest some reflections of curiosity; for the bullion or specie employed in the purchase of the native commodities, has formed a subject of complaint in all ages, as if Europe were exhausted of the precious metals, and all the riches of the world absorbed by Oriental commerce: the fact is true, that this trade cannot be carried on without bullion; for all the revenues of the country, now in the hands of the East India Company, are not sufficient to cover the investments annually made. Still Europe²⁰⁵ is not exhausted, but increasing daily in wealth and power, compared with the other quarters of the world, and never can be, till the industry promoted by this commerce, and by commerce in general, shall be annihilated.

Tin is another of the articles enumerated; and if we find this produce of Britain conveyed to Malabar in the earliest period that history can reach, we find the spices of Malabar in Britain, in an age when the course of the communication with India was probably as little known as the existence of America. The venerable

²⁰⁴ Salmalius supposes Χρυσονηπιωτικὴν to refer to Khrusè, the Golden Island, or Chersonese, in Ava.
²⁰⁵ See Harris's Discourses on the East India Trade, vol. i.

Bede²⁰⁶, who died in the year 735, was possessed of pepper, cinnamon, and frankincense. Did no one ever ask the question, how; in that age, these luxuries had been conveyed to Britain, or were treasured in a cell at Weirmouth?

But the particular most worthy of remark, is the mention of fine silks [*ὀββία Σερικά*]; for outhion is any web of a fine fabric, and as applied to cotton signifies muslin; but its usage in this passage, joined with *Sericon*, plainly indicates the manufacture of the Seres, which is silk. It is mentioned only at this port, and particularly distinguished as not being a native commodity, but brought hither from the countries farther²⁰⁷ to the east. This is a sufficient proof that Nelkunda was in that age, what Calicut was in later times—the central mart between the countries east and west of Cape Comorin; and we want no other evidence to prove, that the intercourse between India and the countries beyond the Bay of Bengal, was open in that age, and probably many ages prior, as well as in the time of Ptolemy. That the fleets which went to Chrusè, or the Golden Chersonese, would find the silks of China in that market, is readily admitted; but that the Seres were still farther east, is manifest, from the map of Ptolemy, as well as from Pliny, who calls them the most eastern nation of the world. Now that the ancients always meant China Proper by the term Seres, however obscure their notions of it were, seems to admit of proof. Silk came into the Roman world usually by the route of Tartary, the Caspian, and the Euxine sea; and when Justinian procured the silk-worm, he procured it by this northern channel. This communication however,

²⁰⁶ Bede Opera, p. 793. Appendix, and began to reign in 872.
²⁰⁷ p. 8c8. Alfred, who is said to have sent *Ἰβερία ἐκ τῆς ἰσθμῆς ἐστὶν ἡ ἀνατολή*.
 Sighelm, bishop of Shirbourne, to Malabar,

on the north, could not be opened with the nations of the Golden Chersonese, with Ava, Pegu, or Siam, but is expressly marked as formed immediately with the Seres themselves. The point fixed for the meeting of the traders from the west with those of the Seres, was in Tartary, and farther to the ³⁰⁰ north-east than the sources of the Ganges; and this point, fix it where we please, is perfectly in correspondence with the Kiachta of our own days, where the commodities of the Chinese and Russian empires are exchanged. The jealousy of the Seres in regard to strangers, remarked by Pliny ³⁰⁹, is perfectly characteristic of the Chinese in all ages; and whether the communication took place near the Chinese frontier, or in any place nearer to the west, it equally proves that there were Seres on the north, as well as the south; and that there was one communication opened by the intervention of Tartary, and another by sea, through the means of the nations in the Golden Chersonese. We shall find some intimation of this commerce on the north (wild and fabulous as the account is) at the conclusion of the Periplus, and in the catalogue of articles now under consideration, the communication by sea is equally manifest. Whether this intercourse by sea was direct, or only by the intervention of the nations of the Chersonese, is another question; but on this subject more will be said in its proper place. It seems natural, however, to suppose, that there always was a Malacca, or some port that represented it, where the trade from China met the merchants from India; as the commerce of India met the traders of Arabia and Persia at Calicut, or some port on the coast of Malabar. In this state of things,

³⁰⁰ Ptolemy, VIth Table of Asia.

³⁰⁹ Pliny mentions this twice; lib. vi. c. 17. and cap. 2, 3. In the first, it is the commu-

nication by land; in the second, it is from the information of a native of Ceylon.

the Portuguese found the commerce of the Oriental world; and in a state very similar, it seems to have existed in the age of the Periplus. This affords us a rational account of the introduction of silk²⁰⁰ into Europe, both by land and sea; and thus by tracing the commodities appropriate to particular nations, or climates, we obtain a clue to guide us through the intricacies of the obscurest ages.

One circumstance respecting the Malábothrum, which I have supposed to be the Betel, remains still to be considered: it is said to be brought here from the countries farther²⁰¹ east, and not to be a native commodity. Pepper, and pearls, and ivory, and spikenard²⁰², are likewise said to²⁰³ be brought here, as well as silk; all which contribute to prove this port to be the representative of Calicut in that day, and Pandion to have enjoyed all the revenues arising from the commerce of India and Europe. Could it then be proved that the hundred and twenty ships which Strabo saw²⁰⁴ at Berenikè, actually reached India by a coasting voyage before the monsoon was discovered, we can see a reciprocity of interests, which might very easily induce Pandion to send an embassy to Augustus. Another Indian embassy is said, by Strabo, to have been sent to the same emperor by Porus; and this Porus is supposed, in Indian history, to be the sovereign of Agimere—the Rana, or principal of the Raj-

²⁰⁰ Silk was not a native commodity or manufacture of India in the 16th century; it still came from China. Cf. Frederick, Purchas, vol. iii p. 1703.

²⁰¹ *Ἐκ τῶν ἄνω τόπων*. Again, I have no doubt but that the sense here given is the right one.

²⁰² The Areka nut is mentioned as an export at Cananoor, the next port by Caf-

Frederick, p. 1707. Purchas, vol. iii.—a fruit the bigness of a nutmeg, which they eat with the kaf, called Betle. And lime of oyster-shells, pepper, cardomum, and ginger, are also mentioned. Within land is the Kingdom of Pepper.

²⁰³ *Φύρατα*.

²⁰⁴ Strabo, lib. xv. p. 686.

pout³⁵ rajahs. Now, were it possible to connect his interests with those of Guzerat, we might prove, that the trade carried on at Barugáza and Nelkunda was of such importance, as to make an intercourse necessary between these two Indian potentates and the emperor of Rome. If an Indian history of these early times should ever be obtained that possessed a degree of confidence or probability, some light might be thrown on this subject; at present it is mere conjecture and speculation.

I cannot quit the contemplation of this catalogue, however, without adverting to the last article on the list, which is the tortoise-shell procured from the Golden Isles, and the isles that lie off the coast of Limúrikè. The first, if not the Maldives, are Khrusè; but the latter are the Lackdives: both are still famous for producing the best tortoise-shell, and particularly the black sort³⁶, the finest in the world, which is found only here, or at the Philippines, and obtains an higher price than any that is procured elsewhere. But if the Maldives are dubious, the Lackdives do actually lie off the coast of Canara or Limúrikè; for though the bulk of them is to the southward, the³⁷ northernmost of the group is nearly in the latitude of Mangaloor; and the market where the tortoise-shell was procured, was Nelkunda. This one circumstance might have convinced d'Anville, if he had attended to it, that Limúrikè must be Canara, and could not correspond with Concan; for there are no islands on that coast, where any quantity of tortoise-shell could be obtained, sufficient to be considered as an article of general commerce.

³⁵ Rennell's Mem. last ed. p. 230.

³⁷ See Rennell's corrected Map, and d'An-

³⁶ Harris, vol. i. p. 716. Purchas, vol. iii. ville's.

This extent and value of the cargoes at Nelkunda, either carried out or brought home, is of greater amount than we have found at any other port, and more circumstantial than at any other except Barugáza. This appears correspondent to the course of the trade at present, but still more to the early commerce of the English, when their original factories were at Surat and Tellicheri. At Surat they obtained muslins, chintz, and cottons; and at Tellicheri, pepper and cardamums: for though the Portuguese multiplied their forts and settlements, the different productions of the north and south, on this western coast of the peninsula, were obtainable with sufficient facility at these two points. In conformity with this system we find, that throughout the whole which the Periplús mentions of India, we have a catalogue of the imports and exports only at the two ports of Barugáza and Nelkunda, and there seems to be a distinction fixed between the articles appropriate to each. Fine muslins, and ordinary cottons, are the principal commodities of the first; tortoise-shell, pearls, precious stones, silks, and above all, pepper²¹⁸, seem to have been procurable only at the latter. This pepper is said to be brought to this port from Cottonara, generally supposed to be the province of Canara²¹⁹, in the neighbourhood of Nelkunda, and famous²²⁰ to this hour for producing the best pepper²²¹ in the world, except that of Sumatra.

The

²¹⁸ The long pepper mentioned at Barugáza is an ordinary and inferior spice, more hot and pungent, with less flavour.

²¹⁹ Eli, Deli, or d'illi, was the port frequented by the Chinese for pepper in M. Polo's time. Lib. iii. c. 26.

²²⁰ In the Sunda Rajah's country, adjoining to Canara, is the best pepper in India. Capt. Hamilton's Acc. of E. India, vol. iii. p. 260.

²²¹ Al Edrissi mentions pepper as growing only in Culam-meli (an island below Subara), and at Candaria, and Gerabtan. What Gerabtan is, I know not; but Candaria may mean the kingdom of Canara, p. 61.; because he says afterwards, it is near the mouth of a river in Manibar—Malabar, p. 65.; but it is not precise. Al Edrissi derives this from the Arabs of Renaudot, p. 9. p. 16. where it is written Kaucam-mali, and Kamkam; the same as

The pre-eminence of these two ports will account for the little which is said of the others by the author, and why he has left us so few characters by which we may distinguish one from another, so as to assign them proper positions on the coast. They seem to have been little visited for the purposes of commerce; and if they were touched at only from necessity, the stay there was short, and the observations transient; but the distinction of the provinces is clear, and if it has been found possible to give these from the testimony of our author, with so much precision as to prevent future deception, we shall not hereafter see the same place assigned to Guzerat by one author, and to Malabar by another; one of whom must be in an error of seven hundred miles. In limiting the provinces, and marking a few of the principal marts, all has been done that could be expected by those who are acquainted with the work; and if conjecture has never been resorted to, but where proof was unattainable, blame ought not to attach, because the discussion of impossibilities has been declined. I have said that it was dubious whether the author himself had ever been farther than Barugáza; but so many corroborating circumstances have come out in tracing the account of Nelkunda, that I would now rather fix the limit of his voyage at this port. Farther than Ceylon he *certainly* was not; and whether the fleets from Egypt ever reached that island previous to the embassy from the king of that country to Claudius, is highly problematical. Individuals possibly might have been there upon an adventure, but the amplifications of Pliny and Ptolemy manifestly

Kemkem, or Concam; and Kaucan-mali is therefore Concan of Mala-bar, adopting Malabar for the whole coast, as is still in usage. But if Al Edrissi has not copied from others, Culam-mali is Coulan of Malabar; and Coulan

is still a port of Travancore, where pepper is obtained. His styling this an island, is consistent with the usage of Arabian writers.—M. Polo mentions Coulan, or Covalam, with the same pre-eminence. See *infra*.

bespeak an ignorance of the truth in their age; and if the voyage was not regularly performed, the knowledge of individuals was either not reported, or not believed.

XI. HIPPALUS AND THE MONSOON.

THERE is an additional reason for believing that the regular course of trade terminated at Nelkunda, which is, the introduction of the discovery of the monsoon by Hippalus at this place. And for this place I have reserved the discussion of that subject, because, though I shall continue my inquiries as far as Ceylon, I am persuaded that the author of the Periplus went no farther than this port.

The history of this I shall give as nearly as possible in the words of the author :

“ The whole navigation, such as it has been described from
 “ Aden²²² and Kanè [to the ports of India], was performed formerly
 “ in small vessels, by adhering to the shore, and following the in-
 “ dentures of the coast; but Hippalus was the pilot who first disco-
 “ vered the direct course across the ocean, by observing the position
 “ of the ports, and the general appearance²²³ of the sea; for at the
 “ season when the annual winds, peculiar to our climate²²⁴, settle
 “ in

²²² Arabia Felix.

²²³ Σχῆμα.

²²⁴ Ἄρ' ἢ καὶ τοῦτωσ' ἐκ τῆ Ἰνδοῦ Φυσικῶσ τὴν κατὰ καιρὸν τὴν πρὸς ἡμῶν Ἐπείρωσ, ἐστὶ Ἰνδοῦ Πιλάργου Ἀγέτωστος Φάσεται.

Some doubt will remain whether this passage is accurately rendered; for the antecedent to ἄρ' ἢ is not clear; and the term Ἰνδοῦ may be thought improperly applied to the Mediterranean; but it seems used in opposition to

Πιλάργου, and by being joined with the Etesians that blow [πρὸς ἡμῶν] in our country, all ambiguity is removed. I will not vouch for the Greek of our author, in the usage of Ἰνδοῦ, because I think his language frequently incorrect, or his text corrupt; but the general sense of the passage is sufficiently clear. The Etesian winds blow during the summer months in Egypt; and the south-westerly monsoon, in the Indian Ocean, is in its full vigour during

“ in the north, and blow for a continuance upon our coast from
 “ the Mediterranean; in the Indian Ocean the wind is constantly
 “ to the south-west; and this wind has in those seas obtained the
 “ name of Hippalus, from the pilot who first attempted the passage
 “ by means of it to the East.

“ From the period of that discovery to the present time, vessels
 “ bound to India take their departure, either from Kanè on the
 “ Arabian, or from Cape Arômata [Gardefan] on the African side.
 “ From these points they stretch out into the open sea at once,
 “ leaving all the windings of the gulphs and bays at a distance, and
 “ make directly for their several destinations on the coast of India.
 “ Those²²⁵ that are intended for Limúrikè waiting²²⁶ some time
 “ before they sail; but those that are destined for Barugáza or
 “ Scindi, seldom more than three days.”

This account naturally excites a curiosity in the mind to inquire, how it should happen, that the Monsoons should have been noticed by Nearchus, and that from the time of his voyage, for three hun-

ing June, July, August, and September. If then we suppose the author to be a native, or a resident at Alexandria, the Etesians *πνεύματα*, represent the effect of them where we live, and *τοιαύτα φυσώματα*, the blowing of the winds which we locally experience. I render *ἀπὸ τῆς* from the time or season, common both to the Etesians and Monsoons; and I do not join *φασίονται* to *προσημαζέσθαι*, with Salmastius, though I suppose that a connecting particle is wanting. See Plin. Exercit. 1186.

²²⁵ Καὶ τὰ λοιπὰ προσημαζέσθαι πρὸς ἕνα δρόμον, ἐκ τῶν χρέμας ἀφ' ὧν ἀπὸ τῶν ἔξωθεν γῆς παραπλέουσι τὰς προσημαζέσθαι κλάσας.

The general sense of this passage is clear; for *ἀφ' ὧν*, and *ἐξ ὧν*, are used by this author to express sailing in the open sea; but

how to understand *ἀπὸ τῶν ἔξωθεν γῆς* is dubious. —Hudson renders it, *ex regione excessi per terram externam supradictos sinus prætervehuntur*; where *per terram externam* is quite as unintelligible as *ἀπὸ τῶν ἔξωθεν γῆς*, and *ex regione excessi* certainly does not express the meaning of the author.

²²⁶ *Ἐπιχειροῦντες*, if it be not a corruption, has no sense in the lexicons which can apply to this passage. The meaning by the context is plain; but how to elicit it from this word, I know not. Hudson has very wisely omitted it.

A learned friend renders *Ἐπιχειροῦντες*, *vultū their heads to the sea; ready to sail, but not sailing.*

dred years, no one should have attempted a direct course, till Hippalus ventured to commit himself to the ocean. It has been sufficiently proved, that a communication was open between India and Arabia previous to the age of Alexander; and it is impossible to conceive, that those who lived either in India or Arabia, should not have observed the regular change of seasons and of winds, which recurred every year, and of which, if they were mariners, they could not fail to have taken advantage, every voyage they performed. It is likewise certain, that vessels frequenting either coast would accidentally be caught by either monsoon, and driven across the open sea to the opposite shore, if they happened to be a few days too early, or too late, in the season, for the voyage in which they were engaged. That this had happened, and that there was a direct passage by the monsoons in use between the opposite continents before the Greeks adopted it, has already been noticed from the *Periplus*, and fully proved. But in almost all discoveries, the previous obstacle is minute, and the removal of it accidental: thus it is, we may suppose, that the few vessels which did find their way to India from the ports of Egypt by adhering to the coast, from the beginning, sailed with the monsoon, both outward and homeward bound; but still followed the track which had been pointed out by Nearchus; and it was necessary for an Hippalus to arise, before it should be known, that the winds were as regular and determinate in the open sea, as upon the coast. The *Periplus* assigns the merit of the discovery to the observation of Hippalus himself; but there is nothing unreasonable in supposing, that if he frequented these seas as a pilot or a merchant, he had met with Indian or Arabian traders, who made their voyages in a more compendious manner than

than the Greeks; and that he collected information from them, which he had both the prudence and courage to adopt. Columbus owed much to his own nautical experience and fortitude; but he was not without obligations to the Portuguese also, who had been resolving the great problems in the art of navigation, for almost a century previous to his expedition.

But the discovery of the monsoon once made, could never afterwards be neglected; and the use made of it by the fleets from Egypt is fully detailed, and much in the same manner by Pliny and the Periplus. The course of the trade from Alexandria to Berenikè, and the progress of the voyage from Berenikè to Okêlis and Kanè, have already been sufficiently described²²⁷; but there are some farther circumstances connected with this, which cannot be suppressed without prejudice to the object in view. For Okêlis is mentioned by both authors²²⁸ as the better port to remain at; which is evidently consistent, because it is sheltered from the adverse²²⁹ monsoon; and the passage of thirty days to Okêlis, and forty to the coast of India, is a proportion so striking, that it could be derived from no other source but evidence of the most authentic nature. For the first distance is only about four hundred and eighty miles, and the second near nineteen hundred, and yet that there should be only ten days difference in the longer part of the voyage, is peculiarly appropriate to the two different seas in which the navigation was to be per-

²²⁷ P. 70. et seq.

²²⁸ Plin. lib. vi. c. 23.

²²⁹ The Immaum finding Aden to lie inconvenient for the trade of the Red Sea, because of the fresh winds usually blowing at its mouth in both easterly and westerly monsoons;

made him remove the trade about 15 leagues within its mouth, to a fishing-town called Mocha. Capt. Hamilton's Acc. of the E. Indies, vol. i. p. 19. That is, it is safer riding within the straits than without.

formed. The vessels destined for India left Berenikè about the middle of July, or earlier, if they were to go farther than Barugáza. The passage down the gulph was tedious; for though the wind was favourable, the shoals, islands, and rocks, in their course, required caution, and compelled them to anchor every night; but when the straits were passed, and a vessel was once within the influence of the monsoon, she had nothing to impede her course from Babel-mandeb to Guzerat; consequently, forty days allotted to her passage is neither disproportionate to her course down the Red Sea, nor too short²²⁹ a space for performing a voyage of nineteen hundred miles to India, notwithstanding the same run at present seldom exceeds fifteen. It seems at first sight a contradiction, that vessels which were to have the longer voyage to Malabar, should remain longer at Okélis than those which were destined only for Scindi or Guzerat; but this likewise depends upon a circumstance peculiar to the monsoon upon the coast of India, which appears never to have been noticed by those who have undertaken to comment on the Periplus.

It is sufficiently known, that the commencement and termination of the two different monsoons are subject to considerable fluctuation; so that though we say these winds are alternate, six months each way, we ought to subtract one month from the beginning and ending of each, which are not only fluctuating, but tempestuous. If then we examine the south-westerly or summer monsoon²³¹ in this respect, and consider May as the month in which it commences,

²²⁹ Nineteen hundred miles in forty days, gives rather more than forty-seven miles a day; but the day's sail of an ancient vessel was 500 stadia, or fifty miles; and the course of a *νεχθίμαρον* double: so that they must in this passage have sailed with great caution. But the Arabs, in the ninth century, employed

thirty days from Maskat; whence we may conclude, they had not much improved upon the Greeks. See the Arabs of Renaudot.— This run should properly be taken at Gardafan.

²³¹ The whole of this is from the Oriental Navigator, p. 211.

it is not finally settled till the beginning of June, a little earlier or later, according to the full or change of the moon²²; and still it is to be observed, that during June and July "the weather is so bad, that navigation is in some degree impracticable." In August it is more moderate, and in September the weather is still fairer; and though there may be an apprehension of storms, "you have often fair weather for several days together," which continues, though liable to the same interruptions, till the middle of October.

This is the peculiar circumstance appropriate to the navigation of the ancients; for if we suppose a vessel to leave Berenikè on the 10th of July, and to arrive at Okêlis the 9th of August; after continuing there a week, ten days, or a fortnight, she will reach Muziris or Nelkunda, at latest, on the 1st of October; that is, at the very time when she has reason to expect the best weather of the season.

There is another singularity applicable to those vessels which are destined for Scindi and Barugâza, and which stay only three days at Okêlis or Cape Gardafan; this is, that the south-west monsoon sets in "earlier to the northward of Surat," than on the coast to the southward. Whether this circumstance is connected with their voyage, we have no data to determine; but if the monsoon commences here earlier, it is consequently settled earlier than in Malabar.

After thus conducting our fleet to the shores of India, it remains next to consider their voyage homeward-bound. And here we are informed by Pliny²³, that they continued on the coast from the latter end of September, or beginning of October, to the early part

²² The first new moon in September is called St. Anthony's Moon, and considered as the commencement of the N.E. monsoon.—C. Hamilton, vol. i. p. 255.

²³ Lib. vi. c. 23.

of Tybi, or December. This allows two months, at least, for the disposal of their cargo, and taking in their lading in exchange. But the latest time of leaving the coast is within the first six days of Machiris; that is, before the ides of January, or the 13th of that month. Now it is very remarkable, that the original order for the fleets of Portugal was subject to the same regulation; for if they did not sail before the 8thth of December, they were detained till the first week of the succeeding month. The reason for this, though not mentioned, is doubtless the change of the moon in both instances, at which time there are usually some stronger gales; and in this we have one more evidence of the same operations of nature producing the same effects in all ages.

Pliny styles the south-west monsoon, Favonius (which the Periplûs calls Libo-Notus), and the north-east, Vulturnus; about which there is much learned disquisition in Salmasius. But we are now too well acquainted with these seas, to have a doubt remaining on the winds that were intended; and we conclude, that as the same causes have operated in all ages, they blew two thousand years ago as they blow at the present day. Not that they are fixed to a single point of the compass, but that north-east and south-west are their general direction. It is added by Pliny, that upon reaching the Red Sea, they found a south or south-west wind, which conveyed them to Berenikè, and enabled them to conclude their voyage in less than the compass of a year. This, likewise, is consistent with experience; for the winds in the Gulph of Arabia are almost constantly north and north-west, except for fifty days, when they are called the Gumfeenth winds, and prevail from the middle of March;

²⁸ César Frederick in Porchas, iii. p. 1708. tember.

who likewise mentions their arrival in Sep-

²⁹ Written Khâmûn.

during that period coming regularly from the south. If therefore we suppose a vessel to leave the coast of India between the 8th and 13th of January, forty days employed upon her return would bring her to Kanè, Aden, or Gardesfan, towards the end of February, At any of these ports she might wait, so as to be prepared to take advantage of the Gumfeen wind in the middle of March; and when she was once within the straits, this wind would serve her for fifty days to convey her to Berenikè, to Myos Hormus, or even to Arsinoè, the representative of the modern Suez. Thus, by embracing the opportunities which the regular seasons in the different seas afford, the whole voyage outward and homeward-bound would be performed with a wind constantly in her favour.

The next point to be considered is, the departure of this fleet from Okélis, Kanè, or Cape Arômata. The two last are more particularly intimated by the Periplus; and Syagros, or Fartaque, by Pliny³⁶. In this the merchant is most probably the more correct of the two; for, as we may conclude that he performed the voyage himself, so is Arômata, or Cape Gardesfan, the point that divides the limit of the monsoon on the coast of Africa: for, on the authority of Beaulieu, we learn, that he passed from winter, storm, and tempest, to calm and summer, in an instant, on doubling this promontory. Here then was the point where their course was open before them, from one continent to the other; and when they were once at sea, there was nothing to change the direction of the wind till they reached the shores of India. On their return from India, they ran down their longitude first to the coast of Africa, tending to an

³⁶ Pliny says, it was 1353 miles from Syagros to Pátala; which is not very distant from truth, for it is in a right line near 1200 miles.

object of magnitude which they could not miss or overrun; and then made good their latitude by coming up northward to the coast of Barbaria and the Red Sea. In effecting this we may conclude, that they directed their course, as nearly as they could calculate, to Arômata; but Ptolemy informs us, they sometimes got to the southward of it, and were carried much lower down than they wished; and sometimes we know that they came intentionally to Rhapta, Opône, and other parts on the coast of Africa, and proceeded afterwards to Arabia, or the Red Sea, according to their destination, interest, or convenience.

The commerce of the Arabians has arrested our attention throughout the whole progress of our inquiry, from the first mention of their imports in scripture, to the accounts of the present day. Their connections with the countries in their neighbourhood is equally obvious: in Syria, Palestine, Egypt, Persia, Mesopotamia, and on the Tigris, we find them noticed by Pliny³²⁷; in India, by Agatharchides, and almost every subsequent geographer; in Africa, they are spread at this day from the Red Sea across the whole continent to Senegal; and in the Eastern Ocean they are found upon every coast, and almost upon every island. But general as the extension of their name and nation may have been, when we refer to their own accounts, nothing is more obscure³²⁸—nothing less satisfactory. The information to be collected from the little tract of the Periplus is a picture of geography, in comparison of the two Arabian narratives published by Renaudot, of Ebn Haukal, or Al Edrissi; besides all the fabulous and the marvellous which we have to remove. Still

³²⁷ Lib. xii. 17.

³²⁸ They are obscure, not only from the want of longitude, latitude, and the direction of the coasts, but likewise from their adopting names that are neither native or classical, but terms of their own language and usage.

there are some particulars in these authors already noticed, which are worthy of attention; and something in the Arabians of Renaudot peculiarly connected with the object of our inquiry; for the general fact, that the Indian commerce had settled at Siraf in the ninth century, is a revolution of importance.

Siraf³³⁹ is upon the same coast in the Gulph of Persia as the modern Gomroon, and held the same rank at that time as Keish in the thirteenth century, and Ormus of a later date. The merchants of Siraf, in that age, evidently performed the voyage to China, and Chinese ships are mentioned at Siraf; but a closer examination has induced me to believe³⁴⁰ that they were not Chinese, but vessels employed by the Siraf merchants in the trade to China. The trade from this port, however it extended farther to the east, certainly met the Chinese fleets on the coast of Malabar; for there it is mentioned, that the Chinese paid a duty of a thousand³⁴¹ drams, while other vessels paid no more than from one dinar to ten.

But the ships that sailed from Siraf went first to Mascat in Arabia, for the same reason that the fleets from Egypt took their departure from Kanè and Arômata; that is, because they obtained the moon-noon the moment they were under sail. The Arab has fortunately preserved this circumstance; for he says, "from Mascat to Kaucam-

³³⁹ It is written Shiraff, Sharraf, and, by M. Cluer, Charrack, pronounced Sharrack.

³⁴⁰ In the port of London, a Chinese ship is a ship destined for China; and in this sense, perhaps, the Arab says, that most of the Chinese ships take in their cargo at Siraf. He describes their passage down the gulph to Mascat; and upon mentioning the Straits at Mussendon, he adds, "after we are clear of these rocks, we steer for Oman and Mascat." I conclude

from this, that the narrator actually sailed himself on board a Siraf ship for China, and in that sense called it a Chinese ship. P. 8. Eng. ed. I do not, however, think this proof so conclusive, as utterly to deny the navigation of the Chinese west of Malabar.

³⁴¹ Two Arabs. P. 9. Eng. ed. The sum is too small to be credible; 10,000 dinars are equal to 1*l.* 17*s.* 6*d.* De Saey, p. 332.

“ mali is a month’s ²⁴ sail, *with the wind aft.*” Here then we have an evidence of the monsoon, and of the passage direct from one coast to the other, in harmony with the Periplus: we have a passage of thirty days from Mascat, proportionate to the forty days from Gardesfan; and whatever Kaucam may be, we find in Mali a reference to Malè and Malabar, in which we cannot be mistaken. Al Edrissi, who copies this passage from the Arabs, writes the name ²⁵ Kulam-meli; so that between the two authorities we may possibly discover Kulam on the coast of Malabar; and on that coast, in the kingdom of Travancore, there is still the port of Coulan, about eighty miles below Cochin; and another Coulam ²⁶, or Coualam, to the eastward of Cape Comorin. Either of these may be the port intended by the Arabian Journal, as it informs us, that “ after watering here, you “ begin to enter the sea of Harkand,” that is, the ocean to the south of Comorin; and in another passage it is added, that “ Kaucam is “ almost upon the skirts of the sea of Harkand.”

I am not certain that I can follow my author farther; but if I understand him right, it is sufficiently evident, that though they sailed by the monsoon to Cape Comorin, they did not cross the Bay of Bengal by the same wind; but after rounding Ceylon, or passing

²⁴ The Arabs had not much improved upon the Greeks in the art of Navigation.

²⁵ The difference of Kaucam and Kulam may be reconciled by supposing the translators misled by the want of the diacritical points; a difficulty which occurs to all translators in rendering proper names. Compare the Arabian Journal, p. 9. with Al Edrissi, p. 61. and p. 37. where Culam-meli is characterized as the Island (that is, the country) which produces pepper. Half the islands of the Ara-

bian geographers are upon the continent.— Compare it also with Abulfeda, who calls it Caulam, the last port of India, where pepper is procured. Lat. S. Melch. Thevenot, vol. i. p. 22.

²⁶ This other Coulam, or Coualam, beyond Cape Comorin, is in the country of Tinevelli; but Paolino says, the first Coulan ought to be written Collam. P. 75.—The trade continued at Coulam in Marco Polo’s time. See lib. iii. c. 25.

the Straits of Manar, they stood on by Lajabalus⁴⁴⁵ and Calabar (which is the coast of Coromandel), and Betuma (the same as Beit Thuma), St. Thomè or Meliapor; and then by Kadrange and Senef to Sandarfulat, which ought to be the Straits of Malacca; and thence to China. There seems to be more coasting in this voyage than in that of Ptolemy; for he carries his fleets across from some point in the Carnatic to the Golden Chersonese, at once. But if his communication terminated there, the Arabs went farther east than his Sinus Magnus, and reached Canfu⁴⁴⁶ in China, which is the modern Canton, where they traded much under the same restrictions which Europeans experience at the present hour. After all, they confess that very few of their ships reached China; that the voyage was extremely dangerous⁴⁴⁷, and that water-spouts and tuffons were continually to be dreaded; added to which, at the date of their narrative in 867 of our era, the kingdom of China itself was distracted by internal commotions⁴⁴⁸, which made it no longer safe for merchants to venture into the country.

⁴⁴⁵ It is written Najabalus also, which d'Anville reads Nachabal for Nichobar. But the islands of Arabian writers are frequently not islands; and if the navigator went first to the Nicobars, and then back to the coast of Coromandel, he almost doubled the passage across the bay. Calabar, I suppose, stands in contrast to Malabar, commencing possibly at Calymere. Bet Thuma is the house or church of St. Thomas at Meliapor, near Madras: Kadrange and Senef, I cannot discover; but Senef I suppose to be the Sanif of Al Edrissi, which, he says, is ten days from Sandifalat; and Kadrange may be Arracan. Sandifalat can hardly be any thing else but the Straits of Malacca; but Rennudot reads it Sandar-Pulo, and converts it into Pulo-Condor,

which seems fanciful. It might be a subject of inquiry, whether Senef, Sanf, or Samf, may not be Siam. The sea opposite the coast of Coromandel is called *Alare Sanficum*, which may be the sea of Siam; but Siam extends across the peninsula, and the gulph of Siam Proper is on the eastern side. Al Edrissi, p. 34.

⁴⁴⁶ Canfu is the Ciancen of Al Edrissi. P. 37.

⁴⁴⁷ Between the sea of Harkand and Delarow there are 1900 islands (Arabs of Rennudot), which include the Maldives, Serandiv, and Ceylon, in the sea of Harkand. Arabs 2. Al Edrissi, p. 31. The danger of the voyage was increased by these, as much as by the obstacles farther east.

⁴⁴⁸ The wars which preceded the dynasty of Sunga. Arabs, p. 41. remarks, 47.

But still it should be remembered, that the Arabians are the first navigators upon record, except the merchants of Cosmas, that penetrated to China; that they are antecedent to the Europeans in this voyage by more than six centuries; and that they had found their way to the northern³⁹ frontier of this kingdom in the ninth century, while in the sixteenth, the Europeans were disputing whether Cathai and China were the same. We have no record of any European⁴⁰ visiting this country by a northern route before Marco Polo, in the twelfth century; or of an European sailing in the sea of China between the time of that traveller and Nicola di Conti, in 1420. Barthema's voyage is between 1500 and 1504, immediately preceding the arrival of the Portuguese.

These circumstances will naturally suggest reflections in regard to the Arabs of the Desert, and the Arabs on the Coast. The sons of Esau were plunderers by prescription and profession; their hand was against every man, and every man's hand against them. The family of Jocktan⁴¹, in Yemen, Hadramaut, and Oman, were as naturally commercial; and as they anticipated the Greeks and Romans in the navigation to India, and the modern Europeans in the discovery of China, it is no more than their due to ascribe to them a spirit of commerce, enterprize, or the thirst of gain, in ages which

³⁹ Whether actually an Arab or not, I cannot discover; but the Arab says, he was acquainted with one, who had seen a man that had travelled on foot [by land] from Samarkand to Canfu, with a load of Must; and had traversed all the cities of China one after another. This is a proof, at least, that the communication was open between Samarkand and China; and as Samarkand, at that time, was subject to the Moslems, this traveller was at

least a Mahometan, if not an Arab. Renaudot, p. 71.

⁴⁰ Europeans had reached China, but from a different cause. M. Polo found a French goldsmith at Cambalu; but he had been carried off from Poland by the Tartars, who had made an irruption into that country.

⁴¹ Cedrenus calls them, Interior Arabians, Aman and Jektan, p. 422. Yemen and Jocktan. Τῆσις Ὀρειῶται δὲ καὶ Ἐπιθιοποι.

no history can reach; and to conclude, that if the precious commodities of the East found their way to the Mediterranean, as undoubtedly they did, the first carriers on the ocean were as undoubtedly the Arabians.

Whether we are better able to understand the Greeks, or whether the Greeks are more intelligent and better informed than the Arabs, I cannot say; but Cosmas, who was never in India himself—who was a monk, and not the wisest either of his profession or his nation, is far more distinct and comprehensible in the sixth century, than the two Arabs in the ninth, or Al Edrissi in the twelfth. He gives a very rational account of the pepper trade in Malabar, and the meeting of the merchants from the East with those of Europe, from the Red Sea, and Gulph of Persia, in Ceylon, which in his age was the centre of this commerce; and he affords a variety of information, which the Arabians either did not know, or have not recorded. But we shall have recourse to him again when we arrive at Ceylon.

I have more than once noticed the Rajah, who, as Pliny informs us, attended the embassy from the king of Ceylon to Claudius, and who asserted, that his father had visited the Seres. I once thought that this Rajah went by sea; but upon a closer inspection of the passage, it is plain that he went by land from Bengal across the mountains called Emodi. Still we have, upon the whole, a proof, that through the intervention of different nations, a communication was open from the Red Sea to the country of the Seres. Whether the Seres are Chinese, has been much disputed; but that they were visited by sea, is true, if the evidence of Cosmas²¹² is

²¹² Cosmas calls them Tzinitzæ, and Tzinistæ. See Dissertation ii. infra.

sufficient;

sufficient; and that they were approachable by land through Tartary on the north, is asserted likewise by Pliny and Ptolemy. This is a peculiarity that suits no nation but the Chinese; and if we find this fact recorded from the time that history commences, it is a strong presumption that the same intercourse took place many ages antecedent to the accounts which have come down to the present time.

Whether the author of the *Periplus* himself sailed with the monsoon, or by the coasts which his narrative takes in succession, he has not informed us; but if he was in India more than once, he might have tried both the different routes. His leaving this circumstance undetermined, may induce a suspicion that he was a geographer, rather than a voyager. But the same circumstance occurs in *Capt. Hamilton's Account of the East Indies*: he gives the ports in succession, from the Cape of Good Hope to China; yet he certainly did not visit them all in one voyage, but gives us the result of the knowledge he had acquired in all his different navigations.

For this account of the monsoons, and the effects produced by them relative to the commerce of the ancients, no apology is requisite: it is of the very essence of the design proposed from the commencement of this work, which was intended not merely as a comment on the *Periplus*, but from the opportunities afforded by that journal to investigate the commerce of the East in all its branches; to trace its progress or situation in different ages, and to examine its relations, causes, and consequences, till the new era of discovery commenced by the efforts of the Portuguese, under the auspices of Don Henry, and the great work was essentially completed by the achievements of Gama and Columbus.

We return now to the narrative of the Journal, which was interrupted at Bárakè, for the purpose of introducing Hippalus to the acquaintance of the reader, and commences again with Ela-Bakarè, altered as to its orthography, in which it now corresponds with the Beccare of Pliny, and the Bárakè of Ptolemy. It is now likewise augmented with the addition of Ela; in which, as has been observed, we recover the Eli of Marco Polo, and the d'Eli or d'Illi of our charts. In this passage there is mention of the Ruddy Mountain⁵³, and then an omission in the text, which requires examination before we can proceed. I have lately learnt that d'Illi itself is not red, but that there are red hills, or land, both to the north and south of it: the red hill to the south, lying near the sea, is that which we must prefer for the Ruddy Mountain of the Journal; and as the features of nature are indelible, it is much satisfaction to establish the consistency of the narrative upon ground so well ascertained. I consider this, therefore, as a point fixed; but I ought not to omit, that the Oriental Navigator⁵⁴ notices red cliffs much lower down, both on the north and south of Anjenga; and as we are approaching very fast to Cape Comorin, if it should appear preferable to others to assume these for the Ruddy Mountain, there is confessedly some ground for the supposition.

⁵³ I have received the following extracts from Capt. Henry Cornwall's Remarks on the Coast of India, 1720; the work itself I have not seen:

"Southward of Mount d'Illi, in fair weather, you may see the Dutch settlement of Cannoor, which will bear N.N. by N. 4½ leagues; you bring the flag-staff N.E. by E. about two miles off shore, and then you will bring that peak seen over Calicut E. by N. over a *reddish hill* by the sea-side."
"Four leagues to the southward of For-

"mosa there lies a *reddish hill*, by the sea-side." This must be a league north of d'Illi; for Formosa is five leagues from d'Illi, according to the Oriental Navigator, p. 223.

"When Mount d'Illi bore S.E. by E. about four leagues, Mount Formosa bore N.E. ¼ N. three leagues Two hills were in sight; one to the southward, and the other northward; the land hereabouts appearing *reddish* near the sea-side, especially towards sunset."

⁵⁴ P. 227.

The omission²⁵⁵ in the text may be supplied, by supposing that the country of Pandion is intended; and the sentence would then express, that after leaving Ela-Bákarè, you arrive at the Red Cliffs, and beyond them the Parália²⁵⁶, or coast of the territory subject to Pandion, which fronts the south, and where you find the town of Kolkhi, and the Pearl Fishery. By this we are to understand, that he means the southern coast beyond Cape Comorin; and so he afterwards expresses himself; for he reverts to Comorin, and then proceeds again to Kolkhi and the fishing-ground.

Ptolemy makes no mention of the kingdom of Pandion previous to Komar; but commences the province of the Aii with Melènda and Elanki²⁵⁷, and makes it terminate at Comar. This would embrace the modern Calicut, Cochin, and Travancore; and in this tract we have still an Aycotta near Cranganoor, that is, the fortress of Ai²⁵⁸. In all other respects, the division of the provinces is nearly the same in Ptolemy and the Periplus, from Barugáza to Comar; and their want of correspondence here, is a circumstance in favour of both; for the kingdom of Pandion is placed by both on the eastern side of the peninsula, and Módura, his capital, is the present metropolis of Mádura. If he had a territory on the Ma-

²⁵⁵ Ἄσ' Ἐλαβακάρη τὸ λεγόμενον Πυρρὸν ἕρος; ἄλλη παρῆναι χέραι τι καὶ ἡ Παραλία λεγόμεναι πρὸς αὐτὰν τὸν ὄψον.

We may read, ἄλλη παρῆναι χέραι τῆς Παιδομακῆς, confirmed by the following clause: Ἐσ' ἡ καὶ Καλιμαρῆσι; ἵσται ὑπὸ τὸν βασιλεῖα Πανδίωνος κενεῶ. But if by the text we are to understand that Elabakare itself is called the Ruddy Mountain, perhaps there is some further omission or corruption in the text. I wish to consider Ela as Mount d'Illa, and Bákarè, or

Ela-Bákarè, as Ram-d'Illi, near the mouth of the river where the vessels lay; and here might be the reddish hill one league N. of d'Illa.

²⁵⁶ We should naturally suppose that Paralia was a Greek term, and literally *the coast*; but Mr. Hamilton informs me, that Paralaya, in Sanskreet, signifies the *remote region*; that is, the extreme part of the peninsula.

²⁵⁷ Nelkunda and Ela.

²⁵⁸ D'Anville, p. 116. Paolino, p. 86.

labar²⁵⁹ side, it was by conquest; and Pliny is in harmony with both: when speaking of his possessions on this side, he says, M6dusa, the capital of Pandion, was at a great distance inland.

XII. BALITA, COMAREI, KOLKHI, PEARL FISHERY.

BALITA is the first place mentioned by the Periplus after leaving the Ruddy Mountain: it is the Bam-bala²⁶⁰ of Ptolemy; but we have nothing to determine its position, except the mention of its having a fine road for shipping, and a village on the coast. No representative of Calicut appears, and probably it did not then exist, nor for several centuries afterwards. The Kolkhi of the ancients has been frequently mistaken for it; but as Kolkhi is beyond Comorin, and is the seat of the Pearl Fishery, the supposition is impossible. Calicut²⁶¹ was the grand centre, for many ages, of all the Eastern and Western commerce, from its origin in 805²⁶² till the arrival of the Portuguese; and though its splendour is now eclipsed, it is still a place of great trade for pepper²⁶³, cardamums, sandal-

²⁵⁹ The country of Malabar Proper could raise more than twelve hundred thousand men, according to Capt. Hamilton, i. 288.

²⁶⁰ There is a Tam-bala on this coast still; but whether it is ancient or modern I know not, nor whether its position would be suitable, if those points could be ascertained.

²⁶¹ We have a Mahomedan account of the settlement of the Moslems at Calicut, taken from Ferishta, and published in the India Ann. Register 1799, p. 148. Miscel. But as Ferishta was a Mahomedan himself, so does he say, he has it from a poetical account; and though it preserves the outline of Ceram

Perumal's retirement, and the division of Malabar, it still contains much that is problematical, and seems a Mahomedan fiction to give the Moslems a legal settlement in the country. Subjoined to this account, however, there is a valuable note, giving an account of the kingdom of Bijnagar—its rise, power, and dissolution; and proving, that the influence of the Ram Rajah extended over Malabar.

²⁶² There are two dates; 907 and 805. D'Anville, *Antiq. de l'Inde*, p. 114.

²⁶³ Tellicheri, an English fort and factory, was established on this coast for the purpose of procuring these articles, and Aungeng.

wood, and other commodities; much frequented by the vessels of Europe, and still more by the traders from the Red Sea, Maskhat, and the Gulph of Persia. These are circumstances too well known to be insisted on; and we must proceed to Comar, no less conspicuous in its situation at the apex of the peninsula, than in the preservation of its name through so many ages, and so many revolutions both of commerce and of empire.

At Komar there was an harbour and a fortress, with a garrison: there was likewise some religious establishment, in which those who dedicated themselves to the worship of the presiding deity first consecrated themselves by ablutions, and then entered into an engagement of celibacy. Women partook of this institution as well as men; and the legend of the place reports, that the goddess to whom their services were dedicated, used formerly to practise the same ablutions monthly at this consecrated spot.

The name of the place, according to Paolino²⁴, is derived from Cumari, a virgin deity, the Diana and Hecate of the Hindoo mythology. The convent²⁵, he adds, still exists, and the same superstition is practised at a mountain three leagues inland, where they still preserve the tradition of Cumari's bathing in the sea. The Sanscreeet name, he adds, is Canyonuri, *Cape Virgin*, but contracted by the natives themselves into Comari, or Cumari. He mentions

²⁴ Cumari, he informs us, signifies a virgin; but Comr is the moon, in Arabic; and Diana (as Phœbe) is the goddess of the moon, the sister of Phœbus. Whether Comr has such a meaning in Sanscreeet, or the goddess's such an attribute in Hindoo mythology, may be enquired.

²⁵ The religious of this sort, he says, are

called Jogi, *coenobites*, or *Go-Suami*, lords of the cows, from their superstition relative to that animal; or Samana, *inoffensive*, because they deprive no creature of life. (These are the Germanai of Strabo.) They live in convents under a superior, sleep on the ground on mats of palm-leaf, and communicate little with the world.

also a small port here, conformably to the account in the Periplus; and a church, founded by St. Xavier, on a mountain close to the sea, which, report says, is dedicated to the Virgin Mary; but on this head the good Carmelite is silent, and I know not whether the report is true.

Circumstances so correspondent, at the distance of two thousand years, could hardly be found in any country except India; and to the local knowledge of Paolino we are much indebted. He has reprobated, indeed, all literary men, who presume to determine questions in their closet relative to countries which they have never visited; but though I and others, who pursue our studies in retirement, owe him something in return, I shall revenge myself by no other method, but by citing a beautiful passage from his work, descriptive of the Paralia²⁶⁶, or Coast of Malabar. Paolino, on his return to Europe, had embarked in a French frigate called the *Calyppo*; and while he is pursuing his course between Cochin and Cape Comorin, he bursts out into a rapturous description of the scenery presented to his view:

“ Nothing²⁶⁷ can be more enchanting to the eye, or delicious to the senses, than is experienced in a voyage near the extremity of the peninsula. At three or four leagues from the coast, the country of Malabar appears like a theatre of verdure: here a grove of cocoa-trees, and there a beautiful river pouring its tribute into the ocean, through a valley irrigated and fertilized by its waters. In one place a group of fishing-vessels, in another a

²⁶⁶ Paolino is mistaken in supposing Paralia in contradistinction to Paralia Soriagorum, the Coast of Coromandel. It extends the whole way from Elabakare to the Fishery, and is literally the coast of Malabar,

²⁶⁷ P. 371.

“ white church ⁶⁸, peering through the verdure of the groves;
 “ while the gentle land-breeze of the morning wafts the fragrance
 “ exhaled from the pepper, cardamum, betel, and other aromatics,
 “ to a great distance from the shore, and perfumes the vessel on her
 “ voyage with their odours; towards noon succeeds the sea-breeze,
 “ of which we took advantage to speed the beautiful Calypso to-
 “ wards the port of her destination.”

Our Greek and Arabian conductors have no effusions of imagination, but a picture of the country where we are, drawn upon the spot with the enthusiasm and sensibility of an Italian, will make ample atonement for the digression. I need not add, that during the north-easterly monsoon, a voyage on the whole coast is effectually a party of pleasure.

We are now to proceed to Kolkhi and the Pearl Fishery, in regard to which Paolino is much displeas'd that none of the geographers have agreed ⁶⁹ in placing Kolkhi at Coléchè ⁷⁰. He will not allow any of us to know the least of the situation of places which we have never seen, and yet we shall build on his own premises to subvert his conclusion; for he, in conjunction with all our charts, places

⁶⁸ There were many churches in this country, both of the Mission, and of the Malabar Christians; but the irruption of Tippoo destroyed every Hindoo pagoda, and every Christian church, as far as he penetrated. Af. Ref. vii. 379.

To these Christians of St. Thomas, Alfred sent Sighelm, bp. of Sherbourne, who brought home many jewels, aromatics, &c. some of which remained long at Sherbourne. Hackluis, ii. 5.

I wish we had more authority for this than

the tradition of Sherbourne, for Alfred deserves every honour which can be added to his name.

⁶⁹ In Mr. Le Beck's Account of the Pearl Fishery it is said, that the best divers are from Collish, on the coast of Malabar. I conclude that this is Colechè. Af. Ref. v. 402.

⁷⁰ Questa città fu sovente confusa con Colavan, Colias, o Collis, degl' antichi, da quelli scrittori . . . che non avevano esaminato il sito locale delle due città tra se molto diverso.

P. 74.

Coléché⁷⁷ previous to Comorin; and therefore, whether we find a representative for Kolkli or not, his assumption must be false; for both Ptolemy and the Periplus⁷⁸ place it, not to the westward, but the eastward of Cape Comorin. The Pearl Fishery is not now, and never was, carried on to the westward or northward of Cape Comorin. The Pearl Fishery is likewise marked out by another characteristic still peculiar to it; which is, that pearl oysters are found only at one place—the island of Epiodorus, which can be no other than the isle of Manar⁷⁹, and there the fishery is at the present hour. By the name of Epiodorus, we may conclude a Greek of that name from Egypt was the first of his countrymen that visited this island; and where would a Greek not have gone⁸⁰, if he had heard that pearls were to be obtained? The great request in which they were at Rome and Alexandria, seems to have marked them out, not indeed as of greater value than diamonds, but as a more marketable and preferable commodity for the merchant.

The power which in different ages has presided over the Fishery, whether native, Portuguese, Dutch, or English, has regularly taken its station at Tutacorin: the Fishery itself is always on the Ceylon side, towards Manar, at Chilao⁸¹, Seewel⁸², Condutchey, &c. The number of persons who assemble, is from fifty to sixty thousand;

⁷⁷ Capt. Hamilton says, between the middle and well point of C. Comorin. i. 333.

⁷⁸ ἄλλο δὲ τῆ Κομορίν ἐκτίσθησιν χώρα μύρον κέλεται, ἢ ἢ καὶ ἀπὸ τῆς τῆς ἰσθμοῦ ἰσθμῶν.

⁷⁹ Le perle nasciono vicino a Mannar. Paolo. lino; 374. But he says likewise, there are two fisheries: one to the westward of Ceylón, in the open sea; and another east of Cape Comorin, separated by the Straits of Manar.

Still both are to the eastward of Cape Comorin; and the island of Epiodorus removes all doubt. P. 373.

⁸⁰ In Coelum.

⁸¹ See Stevens's Hist. of Persia, p. 402. He says Chilao signifies a Fishery in the native language.

⁸² Mr. Le Beck's Acc. Af. Ref. vol. v. p. 396.

consisting of divers, mariners, merchants, and tradesmen of every description. The Nayque of Madura, who was sovereign of the coast, and the representative of Pandion, had one day's fishery; the Governor of Manar's wife, when the Portuguese were masters, had another day, afterwards perverted to the use of Jesuits; and the owner of the vessel had one draught every fishing-day. After the fishery was concluded, the fair was kept at Tutacorin. The brokerage and the duty amounted to four per cent.—paid by the seller. The vessels were not fewer than four or five hundred, each carrying from sixty to ninety men, of which one-third were divers. Capt. Stevens supposes the pearl of Manar to be inferior to that of Bahrein.

This fishery is likewise described by Cesar Frederick, and a variety²⁷⁷ of authors. He informs us, that the divers were chiefly Christians of Malabar in his time; they are now a mixture of that description, of Roman Catholics, and Hindoos; but the superstitions practised to preserve the divers from the sharks, and other dangers of their profession, are all Hindoo. Several fanatics are well paid for their attendance during the fishery for that purpose; and the sharks are as obedient to the conjuration of a Bramin, as they could be to a Malabar priest; for the charm is not perfectly efficacious. Those who wish to enquire farther into the detail, will meet with a very excellent account in the Asiatic Researches (vol. v.) by Mr. Le Beck; in which he will find that this fishery, which used to produce 20,000*l.* to the Portuguese and Dutch²⁷⁸, produced, in the year 1797, 150,000*l.* under the management of the English²⁷⁹.

²⁷⁷ Purchas, vol. iii. p. 1708. By Marco Polo, lib. iii. c. 20. who mentions the Bramin; and Betala, as the seat of the fishery. The king had a tenth; the bramín, a twentieth.

²⁷⁸ Capt. Stevens.

²⁷⁹ 300,000 Porto Nôva pagodas.

In the age of the Periplus, none but condemned criminals were employed in this service; a practice common to all the nations of the ancient world, in their mines, in their galleys, in the construction of their public buildings, and execution of all their public works. The mines of Potosi are still worked by slaves, where the same miseries are experienced as Agatharchides¹⁵⁰ has depicted in the gold-mines of Egypt; while in Europe, or at least in England, we never want freemen to work in our collieries, in our mines of tin, lead, or copper, whose labour is procured, and whose dangers are compensated, by the higher price they obtain for the services they are to perform.

I ought now, in compliance with the nature of the undertaking in which I am engaged, to follow my author to the conclusion of his work; but as I am persuaded that he never went farther than Nelkunda himself, and that he has built upon report in all that is subsequent to that place; so does report grow so vague after quitting the Pearl Fishery and Ceylon, that though he mentions several circumstances in common with other authors, there is so much indeterminate, that I reserve it for a separate discussion. My reason for asserting this is, that he extends the Coast of Coromandel to the east; that he is no longer in particular, but general correspondence only with Ptolemy; and that he has extended Ceylon towards Africa, instead of assigning it a position where it actually exists.

¹⁵⁰ Agatharchides had said a great deal more than his abbreviator has preserved:

Ἐπιπέδον δὲ ἴσον τὸ πάθος δουτυχήματι κατα-
λιπὼν ἐκτραγυλλήσας. Apud Hudon, p. 23.

But what remains is sufficient:

Ὅσα δὲ ἀδύρατα ἄσπερα τῷ πλοῦσι, περματιν

(ὅσας ἰσὺς γίνονται) διὰ ἀλίαν ἐν τοῖς χρόνοις καὶ
εὐλακίαισι υποπίπτουσιν γνομήσιν. P. 27.

The multitude of bones still found in these excavations is incredible, of wretches crushed by the falling in of the earth, as must naturally happen in a loose and crumbling soil.

Pliny has said something of the passage between Ceylon and the continent, not very satisfactory indeed, but sufficient to shew his opinion, that the trade was carried on by this strait. The Periplûs seems to confirm this idea, and Ptolemy has nothing to the contrary; but if the opening in Adam's Bridge, near Manar³²¹, was no deeper at that day than at present, no ship of burden³²² could have passed it. Pliny informs us, that throughout the whole of the straits the depth was not more than six feet; but that there were particular openings, so deep that no anchor could reach the ground. He is likewise so deceived in the position of the island, as to make the ambassadors sent to Claudius astonished at seeing the shadows fall to the north; not reflecting that in their own country, if he had known its situation, they must have made the same observation annually, when the sun was to the south of the equator. These and many other errors of the ancients, induce me to enter more largely into the account of Ceylon than the nature of my work requires; and this I shall consider as the termination of my inquiry, leaving the remainder of the Periplûs for a general discussion, by way of sequel to the whole.

³²¹ Pliny calls either this island, or Ramana Koil, the Island of the Sun.

Manar, in the Tamul language, signifies a sandy river; applied here to the shallowness of the strait. *Al. Ref. v. 395.*

The fishery is usually on the Ceylon side; as at the Seewel Bank, 20 miles west of Arripoo, Condatchey, &c. *Ibid.*

Hardouin allows that the Coliacum Pro-

montorium is not Comorin, but at the Straits of Manar.

³²² A passage in Pliny, omitted in the printed copies, is, *Magnitudo alterna millia ad forum*; which Vossius inserts and reads, *Magnitudo ad terna millia amphorum*. No ship of this size could now pass the straits.

Hardouin adopts this emendation, *lib. vi. 24.* without mention of Vossius.

XIII. C E Y L O N.

THE first account of Ceylon was brought to Europe by the Macedonians, who were with Alexander in the East. Onesicritus is recorded as the first author who mentions it, under the title of Tapróbana; and its variety of names in the East, as well as Europe, is one of the extraordinary circumstances that attend it.

- Lanca²⁵³, or Langa, - is the true Sanskreet name, according to Paolino, p. 371. Vossius ad Melam, lib. iii. 7.
- Ilam, - - - another Sanskreet name, seemingly joined with Lanca; Lanca-Ilam. Id. There is a fabulous island in Al Edrissi, Lanchialos, which he says is ten days sail from Sarandib. Is it not an error from Lanca-Ilam?
- Salabham, - - - another Sanskreet name, signifying Sal, true; and labham, gain. Paolino.
- Salabha-dipa, - - -
- Salabha-dip, - - - Sanskreet. The Island of *true or real Profit*, from its rich productions of gems, spices, &c. Paolino.
- Tapróbana²⁵⁴, - - - the first name brought to Europe. Bochart makes it טפ-פרון Taph Parvan, Littus

²⁵³ Lankoweli. Capt. Mahoney on Ceylon, Af. Ref. vii. 49.

²⁵⁴ Supposed by Burrows to be Tapo-bon, the Wilderness of Prayer. Ayeen Achari, ii. p. 320. oct. ed. This is not so probable as

Tap-raban. Mr. Hamilton does not disprove of Tap-raban, but adds, that there is no allusion to such a name of the island in any Sanskreet writing he has seen.

aureum, 2 Chron. iii. 6. and the Ophir of Solomon. But it is from Tape, an island, and Ravan, a king of Ceylon, conquered by Ram. According to the Af. Researches, v. p. 39. Tapravan, or Tapraban.

Salika - - - of Ptolemy, who says, it is the Taprobana of the ancients, afterwards called Simoondy, but now Sálíka or Sálíkè; the inhabitants, Salæ. Salíkè is therefore an adjective like Ariakè, Barbarikè, Limurikè, with γῆ or νῆσος understood. And the island of Salè approaches very nearly to Selen-dive²⁸⁵.

Seren-dip, - - - Σαραντιπ. Chylococcos in Vossius. Διὰ τῆς ἑστίν αὐτοῖς νῆσος ἢ χώρα. Voss. ad Melam, 2:57. Var. ed. 569. Philostorgius.
 Sielen-dip, - - -
 Selen-dib. - - -
 Selen-dive, - - - the Seren-dib; or island Seren, Selen, of the Arabs; the Sarandib of Al Edrissi; the *Divis*²⁸⁶, and *Serendivis*, of Ammi-anus Marcellinus, who is the first author of the Latins or Greeks who uses this name. Divis, the Lackdives or Maldives, or islands in general. Seledivis,

²⁸⁵ There is a particular cast on the island at this day, called Salè or Challe, and Challas: they are labourers, manufacturers of stuffs, and cinnamon-peelers; and if the antiquity of their establishment in the island (for they are not a native tribe) be established, the

name of the people, Salai, and of the island, Salíkè, would be naturally derived from them. Af. Ref. vol. vii. p. 431. in a highly curious Treatise on Ceylon, by Capt. Ed. Moor.

²⁸⁶ Divis is used in the case in which it occurs. P. 306.

- Selen-dive, the island Selen. Am. Mar. lib. xxii. p. 306.
- Palæfimoonda²²⁷ - of the Periplus. Pliny says there was a river and city of that name, with 250,000 inhabitants; the natives called Palæogoni, perhaps from Bali, the Indian Hercules. Paolino interprets it Parashri-mandala, the kingdom of Parashri, the youthful Bacchus of the Hindoo mythology. But it ought not to be omitted, that Mr. Hamilton considers Simoonto as expressing the *utmost boundary* or *extremity*; and Palifimoonto, as the limit of the expedition of Bali, the Indian Hercules.
- Sindo Candæ, - - - so Ptolemy calls a town and the natives, on the west; Galibi and Mudutti, in the north; Anurogrammi, Nagadibii, Emni, Oani, Tarachi, on the east; Bocani, Diorduli, Rhodagani, and Nagiri [Nayrs], on the south.
- Sailatta, - - - the name in usage in Malabar. Paolino.
- Singala-dweepa, - is the true Sankreet name, according to Sinhala-dviba. Paolino. Mr. Hamilton; the island of Singala²²⁸; for dwipa, or dweepa, is equivalent to the

²²⁷ Pelo Simoon. Vossius ad Mel. lib. iii. 7. p. 438. very much resembles the temples in Insula Siamensis, with the Persian addition of Diu Div, an Island. This is a fanciful etymology; and yet the temple in Ceylon, described by Capt. McKenzie, Af. Ref. vol. vi.

²²⁸ Singha, a lion; Singhalais, lion-faced; from a fable of a king of Ceylon, born of a lion. Capt. Mahoney, Af. Ref. vii. 48.

diva of the Arabs: hence Singala-diva became their Selendive and Serendive; literally, the island of the Singalas, the Chingalese, and Chingulays, of the Europeans; the Singoos or Hingoos, as the natives still call themselves. I cannot help thinking this the most easy and natural of all the etymologies that have occurred; and I return my best thanks to Mr. Hamilton for the suggestion.

Cala, - - - the name used by the Arabs of Renaudot, p. 61.; but perhaps Sala²⁹⁹.

If such is the fluctuation in the name of this island, the different reports of its size and situation are still more extraordinary.

Onesícritus estimates it at five thousand stadia; but, according to Strabo, mentions not whether it is in length, breadth, or circumference. I conclude that he means the latter; because, at eight stadia to the mile, this amounts to six hundred and twenty-five miles; which is not very distant from the truth, for in Rennell's last map

	Miles.
The length is - - - -	280
The breadth is - - - -	150
The circumference is - - -	660 ³⁰⁰

If therefore we interpret Onesícritus rightly, he is entitled to the merit of correctness, as well as discovery; an honour due to very

²⁹⁹ Other names in Harris, vol. i. 677. are, Tranate, Hibensro, Tenarifim, *i. e.* Tena-ceram; but these have been little noticed, and Tena-ceram is evidently an error.

³⁰⁰ From Dondra Head to Tellipelli, 270 miles; from Colombo to Trinacole, 160.—Hugh Boyd, in the India Ann. Reg.

few of the ancient geographers in distant regions; but to make amends, he adds, that it lies twenty days sail from the continent.

Eratosthenes reduces this distance to only seven days sail, which is still too much; for it is not more than thirty-five miles from Point Pedro to Calymere, and fifty from the point next Manar to the opposite coast at Ramana Coil, which is the point where Pliny measures, or about an hundred and seventy from Cape Comorin to Manar. But then Eratosthenes adds, that it extends eight²⁰¹ thousand stadia towards Africa; that is, according as we compute the stadium, either eight hundred, or a thousand miles, in a direction exactly the reverse of truth. In this I am forced to confess, that the Periplus has followed Eratosthenes, and added to his error; for it is stated in express terms, that it reaches almost to the coast of Azania²⁰², which lies opposite to it in Africa. In some account of this sort exists the cause of the error in the Arabian geographers; for Al Edrissi has confounded Cape Comorin, or Comari, with Comar²⁰³, that is, the island of Madagascar; and in his map he has actually placed Madagascar to the eastward of Ceylon. This arises from his extension of the coast of Africa to the East till it reaches

²⁰¹ Strabo, p. 72. 5000; p. 690. 8000.

²⁰² Καὶ ἑξήκ' ἡμέρ' ἔτι τὸ κατ' ἀρκύς ἀπὸ τῆς ἀνατολικῆς ἡμῶν Ἀζανίας ἀπέχει.

²⁰³ It seems to admit of proof, that Al Edrissi has made two islands out of Ceylon, instead of one. Saranda, he says, (p. 28.) is 1200 miles in circumference; and Sarandib (p. 31.) is 80 miles long and 80 miles broad. And yet that Saranda is Ceylon, as well as Sarandib, appears manifest, by his placing the Pearl Fishery there, and making it a great resort of merchants for spices. He has a different mistake about Comar, or Comr; for Cape Comorin, and Comr the island of Mad-

agascar, are confounded. In p. 31. Comr is a very long island [or country], the king of which lives in Mahi. This is evidently the peninsula terminated by Comorin, the king of which lived in Malabar; and the island Sarandib lies seven days sail from it, which is the distance given by the ancients. But p. 34. we have Comr again, one day's sail from Dagutta: now this is Madagascar; for Dagutta is in Sofala. Perhaps, if we ever obtain a scientific translation of Al Edrissi, we may find distinctions to obviate this confusion; for his translator, Gabriel, knew as little of Ceylon as of Russia.

the sea of China, and the necessity he was under of making Madagascar parallel to the coast of Zanguebar.

It is with concern that I mention these errors, in which the author of the *Periplus* is involved, and upon account of which I am constrained to allow his want of information in every thing beyond this point, and to confine myself within the boundary of his knowledge, which must be fixed at Ceylon.

Strabo supposes Ceylon not to be less than Britain, and Josephus²⁹⁴ conceives Britain not less than the rest of the habitable world: these, indeed, are expressions at random; but what shall be said of the amplification²⁹⁵ of Ptolemy, who makes its

	Miles.
Length - - - - -	1,050
Breadth - - - - -	700
Circumference - - - - -	2,450

He does not, indeed, extend it towards Africa; but he carries the extreme southern point more than two degrees south of the equator, which in reality is little short of six degrees in northern latitude. His errors descended much later than could have been supposed; for Marco Polo²⁹⁶ mentions this island as two thousand four hundred miles in circuit; and adds, that it had formerly been three thousand six hundred, but part of it had been swallowed up by tempest and inundation. And even so late as sixty years before the discovery of Gama, Nicola di Conti supposes the circumference to be two

²⁹⁴ Strabo, p. 130. Camden's *Britannia*, pref. lxxviii. See Pytheas *Polyb.* iv. 629. 40,000 stadia.

²⁹⁵ D'Anville observes, that this amplification is as 14 to 1.

²⁹⁶ I am not certain that the amplification

of M. Polo descends from Ptolemy; for he says, this is the size, in the mariners' maps, of India. Had Ptolemy seen such a map? or had the Mahomedans introduced the maps of Ptolemy into India?

thousand miles. Now what is most extraordinary in this is, that both²²⁷ these travellers must have seen the island itself, and must have sailed beyond it, if not round it.

My purpose in producing these facts is not to expose the errors of those who have preceded me on the subject, but to shew how uncertain all information is, when grounded upon report. And yet, in the midst of this darkness, Ptolemy's information was such as, in one instance, to confirm the rank which he so deservedly holds in preference to others; for he gives the names of places more correctly, and more conformably to modern intelligence, than appear in any other author, Greek, Latin, or Arabian. This is a merit peculiar to him, not only here, but in the remotest and least known regions of the world: it proves that his inquiries were made at Alexandria of merchants or mariners, who had actually visited the countries he describes; but that they had not the means of giving true positions, because they had neither instruments for observation, or the compass to mark their course. The North Polar Star was not visible; and if they sailed by the Canopus in the southern hemisphere, as Ptolemy asserts they did, that star is not within fifteen degrees of the Pole, and would give occasion to a variety of mistakes. Still, under all these disadvantages, it is something to have procured names that we can recognize; and these names at once put an end to the dispute formerly agitated among the learned, whether the Tapróbana of the ancients were Ceylon or Sumatra. They prove likewise, that some merchants, or travellers, had reached the capital and interior of the island. By them the capital was found where Candy now is, and called Maa-gram-

²²⁷ Not Nicolas di Conti, unless upon his return.

num²⁹⁸, *the great city*, or metropolis, which was placed on the river Ganges, still called the Ganga, Gonga, or Ma-vali-gonga, *the great river of Bali*²⁹⁹, which flows to Trincomalee. The Hamallel mountains, among which is the Pike of Adam, are likewise laid down relatively in their proper position, and called Malè, the Sanscreeet term for mountains; and above all, Anuro-grammum³⁰⁰ is preserved in Anurod-borro, or Anurod-gurro, a ruin found by Knox, while he was escaping to the coast; which, he says, lies ninety miles north-west from Candy, and in a position correspondent with the account of Ptolemy. He found here three stone bridges; the remains of a pagoda or temple, such as no modern Ceylonese³⁰¹ could build; and many pillars, with stone-wharfs on the river Malwatouwa. Sindocandæ is another name expressing the mountains of the Hingoo, the name by which the natives call themselves; and Hingo-dagul is their name for Candy; for Candi is a hill or fortress on a mountain; and Hingo dagul, the city of the Hingoo, perverted by corruption into Chingoo-lee³⁰², by which name they are at present known to the Europeans settled on the coast³⁰³.

²⁹⁸ These facts are collected from Paolino, Knox, Ribeyro, Major Rennell, and particularly d'Anville, *Aniq. de l'Inde*, p. 150.

²⁹⁹ Bali occurs so repeatedly in Ceylon, that there is reason to think that Palagoni in Pliny, is not a Greek compound, but expresses the descendants, or servants, of Bali.

³⁰⁰ Gramma signifies a city, in *Sanscreeet*. Paolino, p. 250. Knox, p. 6. Borro, boor, poor, and goor, have the same meaning.

³⁰¹ Knox, pp. 72. 80. The natives of Hindostan, the peninsula, or Ceylon, are not deficient in skill, art, or power, to execute such works as are found here, or at Elephanta, or at Elore. But the Hindoo governments are

not wealthy or powerful enough to support the expence; and perhaps the impulse of superstition has not energy enough to require it.

³⁰² For the whole of this, see Knox's History of Ceylon. He was seized after shipwreck, and detained 25 years a prisoner. He possessed the language; and though he may have his errors, is highly worthy of credit as an author of integrity, principles, and religion.

³⁰³ D'Anville likewise mentions the wild country on the south; where elephants are still found, with other resemblances; but these are sufficient to prove the fact for which they are adduced.

Bochart has many other names, in which he finds a resemblance; and those who know the country, by residing in it, might discover more; but I have confined myself to such as are incontrovertible; and these are sufficient to raise our astonishment, how a geographer could obtain so much knowledge of a country, without being able to ascertain its dimensions or position.

Ptolemy has still another particular which is very remarkable; for as he places the northern point of his Taprobana, opposite to a promontory named Kôru, so has he an island Kôru between the two, and a Tala-Côri on Ceylon; and Kôry, he adds, is the same as Calligicum. This is denied by d'Anville, who separates the two capes, and makes Kôry, the point of the continent, at Ramiferam; and supposes Kalligicum to be Kalymere, or Kallamedu. This may be true or not, but it carries us away from the intention of the author; for Ptolemy has nothing to correspond with the northern head of Ceylon, now called Point Pedro²⁰⁴; but he makes his Borêum, or northern cape, erroneously indeed, opposite to Kôry; and his three Kôrys on the continent, on the intermediate island and on Ceylon, are in perfect correspondence with circumstances actually existing.

The expedition of Ram to Ceylon, and his victory over Rhavan, or Rhaban, king of that island, is one of the wildest fables of Hindoo mythology; but he passed into the island at the strait, since called, by the Mahomedans, Adam's²⁰⁵ Bridge. The whole country round, in consequence of this, preserves the memorials of his conquest. There is a Ramanad-buram on the continent close to the bridge; a

²⁰⁴ Tellipelli is more northerly than Point Pedro; but, lying out of the course of the voyage, is seldom noticed.

²⁰⁵ The existence of tigers, and other noxious animals, in Ceylon, almost proves an aboriginal

communication with the continent by means of this bridge. Elephants might have been imported, but a cargo of tigers is not probable.

Rami-ceram, or country of Ram, the island close to the continent; a Point Rama, on the continent. The bridge itself, formed by the shoals between Rami-ceram and Manar, is Rama's Bridge; and in Rami-ceram is Raman-Koil, the temple of Ram. This Koil or temple is undoubtedly the origin of Kôru; and the repetition of it three times in Ptolemy, is in perfect correspondence with the various allusions to Ram at the present day. Kôru is likewise written Kôlis³⁰⁶ by Dionysius, and the natives called Kôniaki, Kôliki, and Koliaki, by different authors. This fluctuation of orthography will naturally suggest a connection with the Kolkhi of Ptolemy and the Periplûs, which both of them make the seat of the Pearl Fishery; and if Sofikoorè be Tuta-corin, as d'Anville supposes, the relation of Kolkhi to that place will lead us naturally to the vicinity of Ramana-Koil; for Tuta-corin was the point where the Dutch presided over the fishery while it was in their hands, and maintains the same privilege now under the power of the English. But Koil, whether we consider it, with Ptolemy, as the point of the continent, or seek for it on the island of Ramiferam³⁰⁷, is so near, and so intimately connected with Manar, the principal seat of the fishery, that there can be little hesitation in assigning it to the Kolkhi of the ancients. Whether there be now a town of consequence either on the continent or the island, I am not informed; but that

³⁰⁶ Paolino supposes Kolis to be Covalam; but Dionysius evidently makes Kôlis the same as Kôru: Νεότης προτάραυς καλότης; . . . Κυλιάδος, μεγάλην ἐπὶ ἤθου ἰσίου . . . Ταπρὸράνη.

³⁰⁷ See the account of Ramifer and Manar, in Capt. Mackenzie's Narrative, Af. Researches, vol. vi. p. 425; a paper which gives

the best account of the two islands; the straits, and Adam's Bridge, that I have yet seen. There does not appear any town or any buildings on this island, except those about the pagoda. The conflux of pilgrims is immense. Koil, in the Tamul language, signifies a temple. P. 427.

Koil, and Kolis, and Kolkhi, and Kalli-gicum²⁰⁸, are related, I have no doubt.

The Kolkhi of Ptolemy is on the coast, indeed, previous to a river called Solên; and such a river appears in Rennell's Map, with the name of Sholavanden applied to a town on its bank; or Solên²⁰⁹ may be the Greek term which signifies a shell-fish, alluding to the Pearl Fishery in the neighbourhood. If therefore we adhere to Ptolemy, the issue of this river would give the position of Kolkhi to a certainty; but the description of the Periplus would lead us directly to Koil, on the island Rami-ceram; for it is there said, that the Bay of Argalus succeeds immediately next to Kolkhi. Now the Argalus of the Periplus is the Orgalus of Ptolemy, which he places instantly subsequent to his promontory Koru; and if we suppose this promontory to be the extreme point of the continent north of Rami-ceram, which it is, we obtain the position of the Kolkhi of the Periplus, without a doubt. The island Kôru of Ptolemy is placed at a distance from the main, erroneously, as all his islands are; but as it is certainly the same as Rami-ceram, and Rami-ceram is separated from the continent only by a narrow channel, the

²⁰⁸ For Kalligicum, Salmastius reads Καλι-κιδ. Plin. Ex. p. 113. And he adds, Præter alia hæc se invenit, Καλικιδῆς vel Καλιαικιδῆς; veterum, esse recentiorum Κόλιου. And yet, strange! he thinks the Kolkhi of the Periplus to be Cochîn.

²⁰⁹ Solên, in its original sense, is a pipe or flute, which the oblong muscle may be supposed to represent, but not the pearl oyster. Perhaps this muscle was found in the river, without relation to the fishery. I learn from Capt. Mackenzie; that there is a fishery on

this side of the strait nearest the continent, called Chanque, carried on along a range called the Low or Flat Islands. The river, as D'Anville has observed, divides inland, and falls into the sea by two mouths—one on each side of Kôru. D'Anville, *Antiq. de l'Inde*, p. 123. *As. Researches*, vol. vi. p. 426. Chanquo, the native term for the pearl oyster, according to Salmastius, is derived from Concha, and received from the Greek and Roman traders. 1129.

island Kôru and the cape Kôru may therefore have been brought into one. I certainly think that Kôru, Kôlis, Kolkhi, and Koil, are the same; but I am not so much led by the name, as by the position assigned to Kolkhi in the *Periplûs*, immediately preceding the Bay of Argalus.

My own deductions on this question, I must confess, are contrary to Ptolemy; and his authority has induced d'Anville, Rennell, and Robertson, to assume Kilkhare which is at the mouth of the river. It is but reasonable to conclude, that the concurrence of witnesses so eminent will prevail against the evidence of the *Periplûs*, and any thing I have to offer in its favour. Still, however, it is just to state the question fairly, and leave the determination to those who may chuse to scrutinize it more precisely. On one point all testimonies agree; which is, that Kolkhi cannot be Coleche, as Paolino with much confidence asserts; for it is impossible that it should be to the west of Cape Comorin.

From the fishery we may proceed to the island itself; and the most distinct knowledge we have of Ceylon from the ancients, is found in Cosmas Indicopleustes, whose narratives are as faithful as his philosophy is erroneous. He tells us honestly, that he was not at Ceylon himself, but had his account from Sôpatrus, a Greek, whom he met at Adooli, but who died five-and-thirty years previous to his publication³¹². This affords us a date of some importance; for it proves that the trade, opened by the Romans from Egypt to India direct, continued upon the same footing from the reign of Claudius and the discovery of Hippalus, almost down to the year 500 of our era; by which means we come within three hundred and fifty years of the Arabian Voyage published by Re-

³¹² Montfaucon fixes the last date of Cosmas's publication in 535.

naudot, and have but a small interval between the limits of ancient geography and that of the moderns.

Sôpatrus, as his name testifies, was a Greek; and I have not yet met with the name of a single Roman engaged in this trade³¹¹. Perhaps the jealousy of the emperors, which did not allow Roman citizens to enter Egypt without permission, had likewise forbidden them to embark in these fleets. But the intelligence derived from Sôpatrus is so perfectly consistent with all that has hitherto been adduced, and so correspondent to the Arabian accounts, which commence only three hundred and fifty years later, that it carries with it every mark of veracity that can be required. For Cosmas reports, from the testimony of Sôpatrus:

I. That the Taprôbana of the Greeks is the Sici-diba of the Hîndoos; that it lies beyond the Pepper Coast, or Malabar; and that there is a great number of small islands [the Maldives] in its neighbourhood, which are supplied with fresh water, and produce the cocoa-nut in abundance. The cocoa-nuts he calls Argellia; and Argel, or Nargel, I am informed, is the Arabic name of the cocoa-palm tree. He adds, that it is nine hundred miles in length and breadth, which he deduces from a native measure of three hundred gaudia; but if gaudia are coffes, his estimation of them is in excess; for three hundred coffes are short of five hundred miles—a computation too large indeed for the island, but still more moderate than that of the geographers previous or subsequent.

II. He acquaints us next, that there were two kings on the island: one called the King of the Hyacinth³¹², that is, the country above

³¹¹ The freedman of Plocamus, who reached Ceylon in the reign of Claudius, was not a Roman, and Plocamus is not a Roman name: he was himself probably a libertus of Claudius.

³¹² The ruby of Ceylon is proverbial. Pao-lino, dedication. Pliny, xxxvii. 41.

the Ghauts, where the ruby and other precious stones were found; and a second king, possessed of the remainder, in which was the harbour and the mart, that is, the low country on the coast, where, in different ages, the Arabians, the Portuguese, Dutch, and English, have been established. On the coast also, he says, there were Christians from Persia, with a regular Christian church, the priests and deacons of which were ordained in Persia; that is, they were Nestorians, whose catholicos resided at Ctesiphon, and afterwards at Mosul: in fact, they were the same as the Malabar Christians of St. Thomas, and occupied nearly the whole of the low country on the coast, while the native sovereigns, above the Ghauts, were Hindoos.

III. Another particular we obtain is, that in the age of Sôpatrus, Ceylon was considered as the centre of commerce between China and the Gulph of Persia and the Red Sea. The Chinese he calls Tzinitzes³¹³; a most remarkable term, expressing the natives of the Cheen, or Ma-cheen, of the Arabs; that is, either the peninsula of Malacca, or China itself; most probably the latter, because he mentions the same particulars as Ptolemy and Pliny assign to the Seres; that they inhabit the country farthest to the east, and that there is nothing but sea beyond it.

IV. The commodities obtained from China, or other places east of Ceylon, or found³¹⁴ there, are, silk³¹⁵ thread, aloes³¹⁶, cloves,

³¹³ Τζινιτζαι.

³¹⁴ Οσα κεντα χερσας βοτ.

³¹⁵ Μιραξιν, read μιραξιν.

³¹⁶ So Al Edrissi: Aromata vero que in eadem Climate [Ceylon] reperiuntur, sunt

caryophylla, sandalum, caustora, & lignum aloes, quorum omnium nihil invenitur in aliis climatibus. P. 38. But without any mention of cinnamon, though he notices the emerald and the ruby.

and sandal-wood²⁷. These articles are exchanged with Malè, or the Pepper Coast; or with Kalliana [Tana], which supplies in return brasi, sesamum-wood²⁸, and cottons. Its commerce likewise extends to the Sindus, where the castor, musk, and spikenard, are found; and to the gulph of Persia, to the coast of Arabia, and to Adooli; while the several commodities of these countries are again exported from Ceylon to the East.

V. We are next informed of the several ports of commerce, commencing from the Indus, in the following order: Sindus, Orrotha²⁹, Kalliana, Sibor, and Malè; and if it might be permitted to interpret these Scindi, Surat, Bombay or Tana, Canara, and Malabar, the Periplús would be in perfect correspondence with Cosmas and Sôpatrus. In Malè, or Malabar, he adds, there are five ports where pepper may be procured—Parti, Mangarooth, Salo-patan, Nalo-patan, and Pooda-patan. Mangarooth is generally supposed to be Mangaloor; and the three Patans, or towns of Salo, Nalo, and Pooda, are so evidently Malabar names, that it is highly probable those who are conversant in the native language of the coast may still discover them, however they have been superseded by the more modern ports of Calicut, Cochin, or Coulan.

VI. After this follow some accounts, not equally correct or intelligible; for we are informed, that Sielidiba is five times twenty-four hours sail from the continent; and that on the continent is

²⁷ Τσανδάλιον.

²⁸ Σισαμύνη ξύλα. What this article means I cannot say; but it is mentioned in the Periplús also, and is possibly a corrupt reading in both.

²⁹ If we suppose Orrotha related to the Oopara of the Periplús, it is most probably on the Tapti, and equivalent to Surat; but there is a part of Guzerat, near Diu, called Soret. Orrot and Sorret are nearly allied.

Marallo, producing [pearl] oysters; with Kaber, that affords the alabandënon²²⁰. For Kaber and its produce, I have no interpretation. Marallo I should have supposed to be Manar; but if it is upon the continent, it is Marawar. The five days²²¹ sail may be softened, by supposing the departure from the last port visited in Malabar; but standing as it does, it is erroneous.

VII. It is then mentioned that the king of Ceylon sells elephants by their height; and an observation, that in India elephants are trained for war, while in Africa they are taken only for their ivory. This is true on the eastern coast; but the Ptolemies and Hannibal trained the African elephant for their armies. Another circumstance is noticed, which continues true to this day; which is, that the importation of horses from Persia pays no duty. Cesar Frederick mentions the same on the coast of Canara, in his time; and Hyder Alli had his agents dispersed from the Indus to Arabia, to obtain a constant supply for his numerous cavalry. The horse is said not even to breed on the whole western side of the peninsula; or if by accident a foal is dropped, it is worth nothing.

VIII. The last circumstance I shall notice is, a conference between the king of Ceylon and Sôpatrus, in presence of a Persian, who had boasted of the power of his sovereign: "Well! Roman," says the king, "what have you to say?" "Look," replied Sôpatrus, "at

²²⁰ Vossius reads *ἀλάνδ*; *ἀλάνδον*, which seems unintelligible; but he informs us it means nutmegs of Banda. We are, however, at present on the coast of Coromandel. Hoffman says, all mercies barbaricæ are so called, as also toys and trifles.

²²¹ Onesicritus - - - 20 days.
Eratosthenes - - - 7

Pliny - - - 4 days.
Cosmas - - - 5

The real distance, where the island approaches nearest to the continent, is short of 50 miles; from Cape Comorin to Columbo, about 180: both too short for any of the ancient estimates.

“ the coins of Rome and Persia : that of the Roman emperor is of gold, well wrought, splendid, and beautiful ; while that of Persia is an ordinary silver drachma.” The argument was conclusive ; the Persian was disgraced, and Sôpatrus was placed upon an elephant and paraded through the city in triumph. Vain as this circumstance may appear, two extraordinary particulars attend it ; for the king’s address to Sôpatrus is, ROOMI³²³, the term used in India to express any inhabitant of those countries which once formed the Roman empire ; and the second is, that the Persians of that day actually had no gold³²⁴ coin, while the coins of Byzantium were the purest and finest in the world.

But in addition to these various particulars, Cosmas has left also some traces of natural history that do credit to his veracity ; for he describes the cocoa-nut, with its properties ; the pepper plant, the buffalo, the camelopard, the musk animal, &c. ; but the rhinoceros, he says, he only saw at a distance. The hippopotamus he never saw, but obtained only some of his teeth ; and the unicorn he never saw,

³²³ *Papao*. If Cosmas had not meant to give the very word of the Ceylonese, he would have written *Papao*. In India the Turks are called Roomi, as possessing Constantinople, the seat of the Roman emperors.

³²⁴ I cannot help transcribing the passage as I found it by accident in Mascon’s History of the Germans :

Monetam quidam argenteam Persarum Rex arbitrato suo cadere consuevit. Auream vero neque ipsi, neque alii cupiunt. Barbarorum Regi, quamvis auri domino, vultu proprio signare licet. Quippe ejusmodi moneta commercio vel ipsorum Barbarorum excluditur. Mascon, vol. ii. p. 98. from Procopius, lib. iii. cap. 33. See Cosmas also, p. 148.

The *enclision* of the Persian coin is the very circumstance that took place upon this occasion ; and it should seem, that as the Greek coins of Bactria, &c. had been current when the merchant of the Periplus was at Barugîza, the Roman coin had now the preference, as the Imperial dollars, Venetian sequins, and Spanish pistoles, have had a superiority in later times. For the purity of the Roman mint at Constantinople, see Clark on Coins.

I have seen the coins of the second Persian dynasty in M. de Sacy’s account of them, and if I recollect rightly, they have the head of the kings ; but I do not remember whether they are all silver.

but as it was represented in brass in the palace of the king of Abyssinia. I mention these circumstances to prove the fidelity of the traveller; for truth is as conspicuous in what he did not, as in what he did see. And after this extract, selected out of his voluminous work, if nothing equally precise or satisfactory is to be collected out of the Arabian writers, or Oriental accounts of any sort, let it not be deemed prejudice or partiality, if we prefer Greek or Roman authorities to all that can be found in any other ancient history whatsoever.

One part of the question has, however, eluded all my inquiries; which is, that I have not found the mention of cinnamon, as a native³⁴⁴ of Ceylon, in any author whatsoever. Iambulus, Pliny, Dioscorides, Ptolemy³⁴⁵, the author of the Periplus, and Cosmas, are all equally silent on this head, and all derive their cinnamon and cassia either from Arabia or Mosyllon, or more especially from the Cinnamon Country, as they term it, on the eastern coast of Africa. That the ancients obtained the best and purest cinnamon, we know from their description of it; and that best sort grows nowhere but in Ceylon. That they might be deceived in regard to its origin, while they went only to Tyre, Sabæa, or the coast of Africa, is natural; but that they should not recognize it in Ceylon, when some merchants went thither in the age of the Periplus, and in all

³⁴⁴ It is mentioned by Matthioli, and in the preface to Ribeyro's History of Ceylon (Fr. ed.), that Strabo notices cinnamon from Ceylon. I have not found the passage; but at p. 63. I find the *regio* Cinnamomifera and Taprobana joined under the same parallel, which perhaps may have led to such a supposition; and again, p. 72. but in the latter passage we have the produce of Taprobana—

ivory, tortoise-shell, and other articles; and here I should have expected to find cinnamon, if the author had noticed it as a native of the island.

³⁴⁵ The language of Ptolemy is precise: he says rice, honey, ginger, the beryl, the ruby, gold, silver, and all other metals, elephants and tigers, are found in Taprobana; but does not mention cinnamon. P. 179. Taprobana.

succeeding ages down to the time of Sôpatrus and Cosmas, is unaccountable.

No voyagers, travellers, or writers, pretended to have visited Ceylon personally, except Iambûlus and Sôpatrus. I know not how to excuse even Sôpatrus, who was only once there casually; but against Iambûlus, who asserted that he had resided in Ceylon seven years, the charge of fiction is almost direct: no one could have been resident so long, without seeing cinnamon, the staple of the island; and that if he had seen it, he should not have recorded it among the other particulars he detailed, is incredible; for the curiosity of Greece and Egypt was as much alive to this inquiry, as to any one that regarded the produce of the East.

Dioscôrides³⁶⁶ and Galen knew it not. Dionysius, who lived under Augustus, preserves the fable of Herôdotus, that birds brought it from uninhabited islands. I do not pretend to have explored the whole range of antiquity on this subject; but the first mention of cinnamon, as the produce of Ceylon, that has occurred to me, is in the Scholiast³⁶⁷ of Dionysius on this very passage. Whether that
circumstance

³⁶⁶ See Matthioli on Dioscorides, lib. i. capp. 12, 13. and p. 44. where the casia (our cinnamon) is said to come from Arabia, and the ancient cinnamon, or sprig of the tree, from Mofyllon. Casia is described by Theophrastus 370 years prior to Dioscorides; and by Herôdotus, in some degree. Strabo says, Arabia produces casia, cinnamon, and card. P. 783. Matthioli adds, p. 45. that Strabo likewise says, cinnamon comes from the southern parts of India; but I have not yet met with the passage. Pliny follows Theophrastus. See also the curious account (p. 45.) that Galen gives of the cinnamon in possession of

Trajan, Adrian, Antoninus, Commodus, and Severus; in all which accounts not a word is found respecting its origin from Ceylon: those who would examine it, as now cultivated in that island, may consult Thunberg, vol. iv. 199.

³⁶⁷ "Ὀρνίθες δ' ἐτέρωθεν δαικύνται ἀπὸ νότου Ἑλλαν Φύλλα φέροντες ἀκατησίαν κινναμώμην. Birds brought from uninhabited islands the leaves [rolls] of unadulterated cinnamon. Upon this the Scholiast writes . . . δαικύνται νότου ἤγειν εἰς σπρί Τεωφράστου. I conclude from this passage, that the Scholia are not by Eusebius; for the expression here is precise. But Eusebius writes

circumstance will prove the early date of that knowledge, or the low date of the Scholiast, must be left for others to determine. Sir William Jones has taken ample notice of this obscurity, and remarks upon the Cinnamon Country of the ancients in Africa, the limit of their geography to the south, that it does not produce a single specimen of this article in the present age, or in any former age, which can be ascertained. Bastard cinnamon is found in Malabar, and true cinnamon, though of an inferior quality, in Sumatra; perhaps also in other islands farther to the east; but that the best growth has been constantly in Ceylon, from all the evidence before us, is undeniable.

The spice we now have, which is the kafia of the ancients, was certainly *procured* in Africa; and the testimony of the Periplus is direct³⁵⁴, that it *grew* there. I state this with all its difficulties, which I cannot solve; but as there was a voyage constantly performed, from Barugáza to Africa, previous to the Greeks having any knowledge of such an intercourse, the only possible solution to be imagined is, that the merchants engaged in this commerce kept the secret to themselves: they imported it at Barugáza from Ceylon, and exported it to Sabêa, where it was first found by the traders from Egypt, by Solomon, and the Tyrians; and in a later age, to the ports of Africa, where they dealt immediately with the Greeks, without suffering by the monopoly of the Sabéans. How such a

writes, ἀπὸ νότου . . . τῶν περὶ τὸ Ἐρυθραῖον πέλαγος; that is, the islands in the Erythrean Sea, which is general.

It is not unworthy of remark, that these birds of the poet attend Bacchus at his birth, in conformity with Heródotus; and their appearance seems likewise to be in Arabia, from the context. See Dionysii Perieg. lin: 944.

and the Commentary of Eustathius, p. 267. ed. Ox. 1697, where the Scholiast is described, Paraphrasis veteris Scholiaste ex codice MS. nunc primum eruta.

³⁵⁵ Periplus, p. 8. Ἐν αὐτῷ γενέσθαι Καροία. And again, γίνεσθαι ἐν αὐτῇ Καροία. And both verbs appear precise; for the imports from the East are specified separately.

secret could be kept so long a time, or how the Greeks could be persuaded that kafia grew in Africa, is, with such lights as we have, inferutable; but that it was not the produce of Africa, the general suffrage of all modern voyagers and merchants is sufficient to prove.

One circumstance worthy of remark is still to be considered; which is, that the merchant of the *Periplus* mentions kafia only, and never cinnamon. Cinnamon, as we have learnt from Galen, was a present for kings and emperors; but the kafia, the canna fistula, or pipe cinnamon, which we now have, was the only article of merchandize in that age, as it still continues. And now that Ceylon is in the hands of the English, it would be no difficult matter to obtain the tender spray of the four principal forts noticed by Thunberg, and compare them with the accounts of Theophrastus, Dioscorides, and Galen. As the species which we have answer to their kafia, it is highly probable that the spray would answer to their cinnamon; for that both were from the same plant, or from different species of the same, there can be little doubt, as Galen acquaints us, that in the composition of medicines a double³⁹⁹ portion of kafia answered the same purpose as a single one of cinnamon; and that both entered into the theriac which he prepared for the emperor Severus.

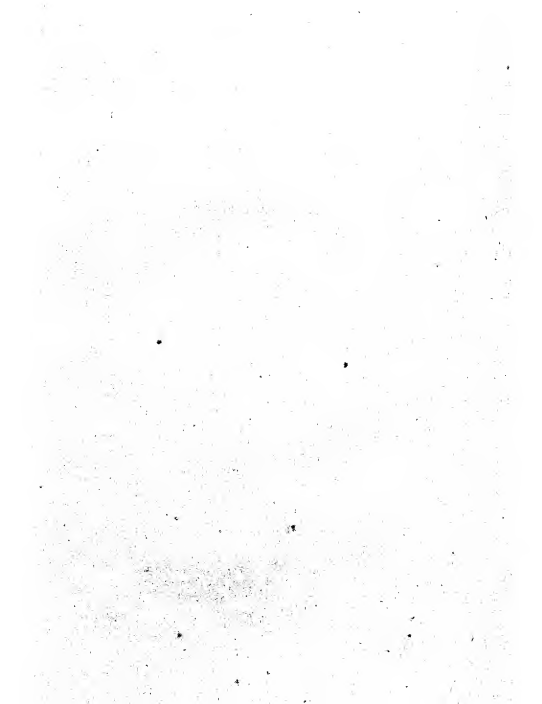
Such is the account that has appeared necessary to be stated relative to the ancient situation of this celebrated island. The modern history of it may be obtained from Baldeus, Valentine, Knox, Ribeyro, Harris, Hugh Boyd³⁹⁸, Le Beck; Captains Mahoney, Colin

³⁹⁹ Matthioli, p. 47.

³⁹⁸ Mahony's, Le Beck's, and M'Kenzie's Narratives, are in the *Asiatic Researches*, vol. vi. p. 425. vol. v. p. 393. and vol. vii.

p. 32.; H. Boyd's, in the *Ind. An. Register* 1799: they are all valuable, and worth consulting.

M'Kenzie, and Percival. And I cannot conclude my commentary on the *Periplus* without pleasure from the reflection, that the valuable commerce of this island is now in the possession of Britain; or without expressing a most anxious wish, that the country deemed a terrestrial Paradise by the Oriental writers—the repository of cinnamon, cloves, betel, camphor, gold, silver, pearls, rubies, and the other most precious commodities of the world—may find protection, happiness, and security, under the British government. And may the expulsion of the Mahomedans, Portuguese, and Hollanders, be an admonition to us, that conquest obtained by arms can alone be rendered permanent by equity, justice, and moderation!



S E Q U E L

TO THE

PERIPLUS OF THE ERYTHREAN SEA.

THE first place that succeeds after leaving Kolkhi, is the Bay A'rgalus², connected with a district inland [of the same name]. Here, and here only, all the pearls obtained in the fishery at the island of Epidorus³ are⁴ [allowed to be] perforated (a) [and prepared for market]. Here also are to be purchased the fine muslins called Ebargitides (b).

Proceeding

REMARKS.

(a) This would be in the modern district of Marawar, possibly the Marallo of Cosmas: Tutacorin, the place where the market is now kept, and the pearls taxed, is in Tinivelli, west of Rami-ceram. The earliest modern accounts agree in Tutacorin, while the power was in the native government; the Portuguese, Dutch, and English, have continued it there. Both Provinces, in the age of the Periplus, were in the kingdom of Pandion; and the Bay of A'rgalus was nearer Mádura, the capital, than Kolkhi, or Sofikoorè. This was a sufficient reason why the market should be rather on the east, than the west side of Rami-ceram.

(b) Salmastius reads Σινδουσι μαργαρίτιδες, muslins sprinkled with pearls. Hudson, & Plin. Ex. 1173. which, notwithstanding the pearls bored at Argalus, seems highly dubious.

NOTES.

* Πρώτος ἀργαλιός ἐν κρήνῃ κίμωνος.

² Written in Ptolemy,
Sinus Orgalicus,
Sinus Agaricus,
Sinus Argaricus.

³ Manar.

⁴ Περφορούσας is the reading of Salmastius, which ought rather to be στρογγύλαι. The text stands στρογγύλαι, for which, perhaps, στρογγύλαι might be substituted. But perforation is manifestly intended, be the reading what it may.

Proceeding from hence, the most conspicuous of all the marts and anchorages on the coast are Kâmarâ (c), Podooka, and Sôpatma. To these the traders from Limûrikè⁵, and the other provinces north⁶ of Limûrikè, resort; and in these marts are found the native vessels which

REMARKS.

dubious. If we were to examine a catalogue of muslins at an India sale, we should find many names more strange than Ebageitides, derived either from the manufactures, or the place where procured.

(c) Where to fix any of these three places is mere conjecture; our course is still east, according to the Periplus; but if Kamara be the Chaberis Emporium of Ptolemy, as Mercator supposes, his Podooka is still higher up the coast, and our course ought to be north-east; and if his Manarpha be Maliarpha, or Malapoor, that place is the St. Thomè of Madras; in which case Podooka must be fixed somewhere on the coast between the Cavery and Madras, but where, it is impossible to determine. Sopatma is not noticed by Ptolemy. Soro-patma would be the town of the Soræ, with some allusion to the Soræ of Ptolemy and to Coromandel; but it is all conjecture; and yet, notwithstanding this obscurity, we have manifestly a trade here described, regularly carried on by native traders, between Malabar and Coromandel, without the least notice of Greeks being concerned in it. We have an account that the specie brought by the Greeks to Canara, finally settled on the other side of the peninsula; and as we know that in all ages the commerce of India cannot be carried on without specie, so we see here its regular progress to the eastward. We are informed also, that the exports of Egypt to Canara, and the produce of Canara itself, went by the same conveyance to Coromandel; and that the principal articles in return were the muslins, as they are at this day: the merchants from Guzerat and Concan partook in this trade, and possibly those from Scindi. In the whole of this, without being able to specify particular places, we have a general picture of Indian commerce, so conformable to the accounts of the Arabs, and of the Portuguese upon their first arrival on the coast, that we want no further evidence to persuade us, that the commerce of India was as vigorous antecedent to history, as it is stated at the moment that history commences. The different sorts of vessels constructed in these ports are likewise correspondent to modern accounts: the monoxyla are still
in

NOTES.

⁵ Canara.⁶ Barugâza or Guzerat, Arjakè or Concan.

which make coasting voyages to Limúrikè—the monoxýla of the largest fort, called sangara, and others styled colandiophònta, which are vessels of great bulk, and adapted to the voyages made to the Ganges and the Golden Chersonese.

To

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in use, not canoes, as they are sometimes improperly rendered; but with their foundation formed of a single timber, hollowed, and then raised with tiers of planking till they will contain 100 or 150 men. Vessels of this sort are employed in the intercourse between the two coasts; but the kolandiophònta, built for the trade to Malacca, perhaps to China, were exceedingly large and stout, resembling probably those described by Marco Polo and Nicola di Conti. Barthema likewise mentions vessels of this sort at Tarnafari (Masulipatam?), that were of 1000 tons (dolía?) burthen (lib. vi. c. 12. Grynaeus), designed for this very trade to Malacca. This is the more remarkable, as d'Anville fixes the Mæfolia of Ptolemy at Masulipatam; and Ptolemy's point of departure for Khrusè, or Malacca, at the Godavery, twenty-six leagues only to the north. From these circumstances there is great reason to conclude that he is right; for Barthema had come from the Straits of Manar to Pulchat, north of Madras, and then proceeded to Tarnafari, where he embarked for Bengal, Pegú, and Malacca. How extraordinary, then, is the correspondence of the Periplus with the modern course of these navigators, from the Straits of Manar to the Carnatic! and from the Carnatic, passing the wild tribes of Orissá (still savage) between the Godavery and the Ganges; and then proceeding to Malacca, or the Golden Chersonese! Still however, with all this accuracy, he is in the same error with Ptolemy, carrying the whole course east till he reaches Défarèndè or Orissá, and then giving it a northerly direction to the Ganges.

The other vessels employed on the coast of Malabar, as Trappaga and Kotumba, it is not necessary to describe: they have still in the Eastern Ocean germs, trunkees, dows, grabs, galivats, praams, junks, champans, &c. names which have all been adopted by the Europeans, and which it is no more requisite to distinguish, than to explain our own brigs, snows, schooners, sloops, or cutters, to the Hindoos. But the mariners aboard the Indian vessels I have looked for in vain: neither Greeks or Arabs are mentioned; but as the manners and religion of the Hindoos exclude not foreigners from their country, it may be presumed that their seamen were always foreigners, possibly Malays, or even Chinese; for that the Hindoos themselves never used the sea, is almost indubitable. The whole voyage appears to have been made

To these marts likewise are brought all the articles prepared [in Egypt] for the market of Limúrikè; and almost all the specie, of which Egypt is continually drained by its trade with Limúrikè, finally centres in this coast⁹, as well as all the produce of Limúrikè itself.

From the coast⁹, as the course of the navigators tends to the east round the countries which succeed, the island, now called Palaifmoonodus, but formerly Taprobana, lies out in the *open*¹⁰ sea to the west (*d*); the northern part of which is civilized, and frequented by vessels

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by coasting, and so it continued when we first meet with Arabs in these seas; which is the more remarkable, as the monsoon was known, and made use of between Africa and India; and the same monsoon prevails to the east, as well as to the west of Cape Comorin.

I do not find the Tarnafari of Barthema in the modern maps: it might lie between Paleachat and Bengal. But the peculiarity is, that there is an island Tanaferam on the coast of Siam, and the great river so called. Tana-feram is Regio Deliciarum. Vossius ad Melam, lib. iii. 7.

Mr. Marsden mentions the vessels that come regularly from Telingana, between the Godavery and Kistna, to Acheen, at this day. This tract answers sufficiently for the port assumed by Ptolemy, for the passage to Khrusè, and for the Tarnafari of Barthema; but does not determine the situation: it seems, however, to bespeak the same trade. Marsden's Sumatra, p. 312.

(*d*) The better knowledge of this passage which I have now obtained, obliges me to recall the argument which I had advanced on the meaning of *δύσις*, in the dissertation on *Επιτοδομωμενδονίσις*, p. 17. I now understand that the island lies to the west as you sail to the east from Ceylon.

NOTES.

⁷ *Ἐς τὴν Λαμυρικὴν ἰσθαζέμενα*, quæ in Limy-rica elaborantur. Hudon. But then it should be *Ἐ τῆς Λαμυρικῆς*.

⁸ *Χρήμα*. Res præterea omnis generis. Hudon. But *χρήμα* is used repeatedly in the *Periplus* for specie.

⁹ *Παραλία*, the coast of Coromandel, in con-

tract to the *Παραλία*, or coast of Malabar. In Ptolemy, *Paralia Sore-tanum*; and *Sore* is Core, Coro-mandl. Coro-mandalam of Pac-lino, the Millet Country. See d'Anville, *Antiq.* 127.

¹⁰ *Ἐς πέρατος ἰκαιοται*.

vessels equipped with masts (*e*) and sails. The island itself [is so large, that it] extends almost to the opposite coast of Azania [in Africa]. Here pearls, precious " stones, fine muslins, and tortoise-shell, are to be obtained.

[But returning now to the coast, above Kámara, Podooka, and Sopotma, lies] Masalia, a district which extends far inland. In this country a great quantity of the finest muslins are manufactured". And from Masalia the course lies eastward, across a bay, to Désafarè, where the ivory is procured of that species" called Bôfarè.

Leaving

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(*e*) Ἰσσοπεπρωμένους. I conclude that this means, they were vessels adapted to distant voyages, east or west, in contradistinction to the sangara and monoxyla, employed only on the coast; and the text of Strabo confirms this opinion: Τετραβάτης . . . δίχην δὲ τῆς ἡπείρου πλεῖν ἡμερῶν ἕκαστοι, ἀλλὰ κοκκίλοισιν τὰς ναῦς, φουλίαι μὲν Ἰσσοπεπρωμένους, κατισκευασμένους δὲ ἀμφότεραθεν ἰθακίλιον μιστῶν χρεῖσι. The vessels here meant are the monoxyla, built from the bottom without ribs, ill equipped with sails, and heavy sailers. In these vessels it was twenty days sail from the continent to Ceylon, but in others only seven: both distances are in excess, but they are palliated by Vossius, who supposes the distance to be measured from Covalam in Travancoor, to Pointe du Galle in Ceylon, as Pliny places the port of Ceylon on the south side of the island. Pliny has likewise a reference to Strabo, when he speaks of twenty days sail from the Prasii to Ceylon, in the paper-ships of Egypt, and seven in the Greek vessels. Prasii is evidently a corrupt reading; and how far paper-ships, or ships composed of the biblos, should venture on these voyages, is dubious. That they were used on the Nile is true: Radicibus papyri incolæ pro ligno utuntur. Ex ipso quidem papyro navigia contextunt. (Plin. lib. xiii. 2. & v. 22. See Salmast. 1110.) It is likewise to be noticed; that Ἰσσοπεπρωμένους is a reading of Salmastius for πλεῖστοις, in the Basil edition; but Vossius reads it τὸ πλεῖστον ἡμερῶν, they perform it generally in twenty days. This correction accords with Pliny, and approaches nearer to the text, corrupted as it stands; in fact, Salmastius takes Ἰσσοπεπρωμένους from Strabo, and Vossius ἡμερῶν ἕκαστοι.

NOTES.

" Transparent.

" Φουλίαι.

" The Arabs of Renapdot mention the

rhinoceros, or kerkandam, in the same country. P. 17.

Leaving Défarèné the courſe is northerly, paſſing a variety of barbarous tribes; one of which is ſtyled Kirrhádæ, a ſavage race, with noſes flattened to the face. Another tribe are the Bargoofi; and others (*f*), diſtinguiſhed by the projection of the face like that of the horſe, or by its length " from the forehead to the chin; both which tribes are ſaid to be cannibals.

After paſſing theſe, the courſe turns again to the eaſt, and ſailing with the coaſt on the left, and the ſea on the right, you arrive at the Ganges, and the extremity of the continent towards the eaſt, called Khrusè [or the Golden Cherſoneſe].

The Ganges is the largeſt river of India: it has an annual increaſe and decreaſe, like (*g*) the Nile; and there is a mart on it of the ſame name, through which paſſes a conſiderable traffic, conſiſting of the Gangetic (*b*) ſpikenard, the Gangetic mullins, which are the fineſt manufacture of the ſort, pearls, and betel.

In this province alſo there is ſaid to be a gold mine, and a gold coin called Kaltis (*i*).

Immediately

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(*f*) Whenever an author arrives at the Country of Monſters and Anthropophagi, I conclude he is at the end of his knowledge: anthropophagi, however, there are ſtill ſaid to be in the Andaman Iſlands, and the fact is certainly proved in New Zealand; but the varieties of the human ſpecies, with horſes' heads, with tails, or with heads which grow beneath their ſhoulders, ſtill remain to be diſcovered. Of the Kirrhádæ, or Défarèné, I have found nothing; but I place the latter in Oriſſa. The ivory called Boſave may be the horn of the rhinoceros, much coveted in the Eaſt, and the animal is ſometimes called Βόξ μονόκερος, Βόξ unicornis.

(*g*) The ſolſtitial rains produce the ſame effect on both rivers.

(*b*) See the catalogue. Νάρδος, the regular importation of this odour, is from the Ganges or Bengal, whither it is ſo this day brought from Thibet.

(*i*) We have no account of a gold mine; but a gold coin called Kalteen, or Karteen, is ſtill known in Bengal. Af. Ref. vol. v. p. 269.

NOTE.

* Ἰκτιοφάγοι, μακροφάγοι.

Immediately after leaving the Ganges, there is an island in the ocean called Khrusè (κ) or the Golden¹⁵ Isle, which lies directly under the rising sun, and at the extremity of the world towards the east. This island produces the finest tortoise-shell that is found throughout the whole of the Erythræan Sea.

But still beyond this, immediately under the north (I), at a certain point¹⁶ where the exterior sea terminates¹⁷, lies a city called Thina,

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(κ) Khrusè is mentioned as an island by Mela, Dionysius, &c. as a Cherfônese by Ptolemy. It may be Ava, Pegu, or Siam, for they were all ostentatious of gold; but, placed as it is here, next to the Ganges [*κατὰ δὲ τοὺς ποταμούς*], its position must be erroneous. Ptolemy is more correct in fixing the Kirrhádæ in this situation, whom our author mentions previous to the Ganges; for Kirrhádæ bears some resemblance to the Hidrange or Kadrange of the Arabs, which seems to be Arracan; and if Arracan may be extended to comprehend the little district of Chitagong, it is contiguous to the Ganges, or rather to the Megna. Ptolemy adds, that the best betel is procurable in this province (see Dissertation); and it is from hence that the Sefatæ, or Bésadæ, who are the Tartars of Laffa or Thibet, carry that article to the northern provinces of China.

(I) This strange passage I have rendered literally, but it is unintelligible without a comment. [*Under the north*] implies the same as is repeated afterwards, *under the Lesser Bear*. [Where the sea terminates outwards] intimates the existence of a circumambient ocean, like the Marc Tenebrosum of the Arabian geographers; to comprehend which, we must imagine the Golden Cherfônese the last region east of the known world; but still that there is an ocean beyond it, surrounding the whole earth, and that Thina lies inland, in a country that is washed by this ocean. This notion, entangled as it is by an erroneous situation, and confused expression, still intimates, in accordance with Mela and Pliny, that Thina is the last country of the known world, and that there is nothing beyond it but the sea. If the author had an idea of a sphere, this sea would extend to Spain, which is Strabo's conception; if he thought the earth a flat surface, this sea is the ocean that surrounds it.

NOTES.

¹⁵ The Golden Continent and the Golden Island are evidently distinct here, as the Golden Province and Golden Cherfônese are in Ptolemy.

¹⁶ Ἐπὶ τοῦ ἀνατολικοῦ ὀρίζοντος. Ἐπὶ is an insertion of Salmastius's.

¹⁷ The Marc Tenebrosum of the Arabs.

Thina¹⁸, not on the coast, but inland; from which both the raw material¹⁹ and manufactured silk are brought by land, through Bactria, to Barugáza, or else down the Ganges [to Bengal], and thence by sea to Limúrikè, or the coast of Malabar (*m*).

To Thina itself the means of approach are very difficult; and from Thina some few [merchants] come, but very rarely; for it lies [very far remote] under the constellation of the Lesser Bear (*n*), and is said to join the confines of the Euxine Sea, the Caspian, and the Lake Mèôtis (*o*), which issues at the same mouth with the Caspian into the Northern²⁰ Ocean.

On the confines, however, of Thina, an annual fair or mart is established; for the Sêfatæ, who are a wild, uncivilized tribe, assemble there with their wives and children. They are described as a race (*p*) of men, squat and thick²¹ set, with their face broad, and their

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(*m*) See the Dissertation. All that went by land to Bactria, passed down the Indus to Guzerat; all that came through Thibet or Lassa, passed down the Ganges or Brama Putra to Bengal.

(*n*) See the Dissertation.

(*o*) For this inconsistency consult the Dissertation.

(*p*) If these Sêfatæ are the Bêfadæ of Ptolemy, which is generally allowed by the commentators from the attributes assigned to them by both, the Bêfadæ of Ptolemy are placed north of Kirrhâdia or Arracan, and correspond very well with the Tartars of Lassa, who might naturally be the carriers between China and Bengal. But why the betel-leaf should be carried in this form from Arracan to China, in order to be made

NOTES.

¹⁸ Τὸ Σινὲ ἰσθμῶ. Ἰβριε, καὶ ἡ ὁδὸς Μαρτιάδος, ἢ: ἑτέρας ἀποκαταστάσεις ὁμοίαι αὐτῆ; ἢ ἡνωμένοι αὐτῆ; καὶ ἀγνώστου συγχέωσιν. Marcian Heracl. Hudson, p. 14.

Thina, the capital of the Sina, is the boundary between the known and unknown part of

the world.

In this Marcian is more perspicuous than Ptolemy, whom he usually follows.

¹⁹ Τὸ ἴσον.

²⁰ Τοῖς ἀποστρατηματικῶς μέρει.

²¹ Κολοβῶν.

their nose greatly depressed. The articles they bring for trade are of great bulk, and enveloped in mats²² or sacks, which in their outward appearance resemble the early leaves of the vine. Their place of assembly is between their own borders and those of Thina; and here spreading out their mats [on which they exhibit their goods for sale], they hold a feast²³ [or fair] for several days, and at the conclusion of it, return to their own country in the interior.

Upon their retreat, the Thinxæ, who have continued on the watch, repair to the spot, and collect the mats which the strangers left behind at their departure: from these they pick out the haulm, which is called PETROS, and drawing out the fibres, spread the leaves double, and make them up into balls, and then pass the fibres through them. Of these balls there are three sorts—the²⁴ large, the middle-sized, and the small: in this form they take the name of Malá bathrum; and under this denomination, the three sorts of that

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made up with the Areka nut, and then returned to India by the Chinese under the denomination of Malá bathrum, is difficult to comprehend. The distinction between the leaf and the nut seems to be preserved in petros and malá bathrum; for that petros is the betel, or betre, cannot well be doubted, when it is described as resembling the young leaves of the vine; for the betel is a delicate species of the pepper-plant, and that plant is almost constantly described as similar to the vine.—The description of the Sáfate leaves little room to doubt that they are Tartars; and we have here, upon the whole, a description of that mode of traffic which has always been adopted by the Chinese, and by which they to this hour trade with Russia, Thibet, and Ava. See the Dissertation.

NOTES.

²² Ταπίνοις, sumps, literally mats made of rushes. These terms are applied by Pliny to the spikenard. Lib. xii. c. 26. The spikenard was considered specifically as *the leaf*; how

²³ The word, in the original edition, was ἀγοράζουσι; for which Salmastius reads ἀγοράζων. I propose ἀγοράζουσι, they deal or traffic. Hence it became confounded with the betel

²⁴ Ἀδύροφαιρον, μέγιστον φαιρον, μικρόν φαιρον.—leaf, always used with the Areka nut.

that masticatory are brought into India by those who prepare (g) them²⁵.

All the regions beyond this [towards the north] are unexplored, either on account of the severity of the winter, the continuance of the frost, or the difficulties of the country; perhaps also the will of the gods has fixed these limits to the curiosity of man.

REMARK.

(g) Ἐκ τῶν καταργησίμων ἀυτῶν. Those who manufacture them—who are these but the Sines? If I had found that the Chinese brought them by sea, as they did to Ceylon in the time of Cosmas, my evidence for the performance of the voyage, either to or from China, would have been complete; but on this slender ground I dare not assert it, nor do I think it probable, for the betel might come down the Ganges as well as silk. The whole seems to be in irremediable confusion, with particulars founded on truth, and a total that is inconsistent.

NOTE.

²⁵ Ἐκ τῶν καταργησίμων, rendered by Salmalius, Those who finish them, or make them up for exportation.

DISSERTATION I.

ON THE SINÆ, THE SÈRES, AND THE TERMINATION OF
ANCIENT GEOGRAPHY ON THE EAST.

- I. *The Name of China.*—II. *Sinæ of Ptolemy in Siam, Sinæ of other Authors, and Sères the same; Periplus, Eratosthenes, Mela, d'Anville.*—III. *Relative Situation of the Sères, with respect to Scythia, and India beyond the Ganges.*—IV. *Capital, Sera Metropolis.*—V. *Sères distinguished as Manufacturers of Silk.*—VI. *Intercourse between China, India, and Europe; Route from Ptolemy, Maes the Macedonian.*—VII. *Modern Route—Marco Polo, Rubruquis, Carpini, Goetz.*—VIII. *Route of the Sésatæ from Arracan to China—Dionysius Periegetæ.*—IX. *Intercourse by Sea—Mela, Rajah of Pliny, Cosmas Indicopleustes.*—X. *Golden Chersonese, Voyage from Ceylon thither, Coast of Coromandel, Masulipatam, Ganges, Arracan, Ava, Siam, Cattigara.*—XI. *Longitudes and Latitudes of Ptolemy, however in Excess, still the Cause of modern Discovery; Navigation towards the West from Spain—Roger Bacon, Columbus, Map of Ptolemy; Eulogy of Ptolemy.*

I. **T**HINA, Sinæ, and Tzinistæ¹, so nearly resemble China and the Chinese, that upon the first view of these appellations, we are naturally led to conclude that they are the same. Serica
also,

¹ Tzina, and Tzinitzæ, and Tzinistæ, are the orthography of Cosmas Indicopleustes, and approach as nearly to China and the Chinese, as Greek letters can; and of the country meant there can be no doubt; for he mentions the silk brought by land from that country

also, the Country of the Seres, which produces the silk, and the only country which originally produced it, is so pre-eminently and characteristically the same country, that if Ptolemy had not assigned two different positions for the Sinæ and the Sères, there would probably have been no dispute upon the question at the present hour.

But it is said, the Chinese themselves know nothing of this name. This, however, is of little weight in the subject of our inquiry; for the same nation in Europe which we call Germans, are styled *Almains* by the French, and *Teutsch**, or *Teudesch*, by themselves. The Jesuits who were in China have, however, endeavoured to find an approach to this found in *Tan-djin*, *Han-djin*, the people of *Tan*³ or *Han*, two of their early dynasties; and in *Chen-si*, one of the principal provinces: but upon these similarities there is little dependance; for it is generally allowed, that the principal native appellation is *Tchou-koue*⁴, the *Central Kingdom*; and every nation in the world, from vanity, from relation to all the regions around, or from ignorance, is entitled to the same distinction.

But let us first inquire, how this name was brought westward? Manifestly not by the north, or by land, for the name obtained by that conveyance was *Kathay* and *Kitai*; but by sea it was first heard of—by the Macedonians, in the form of *Thina*; by *Cosmas*, in the form of *Tzinistæ*; by the Arabs⁵, as *Cheen*, or rather *Ma-cheen*,

country to Persia, 2500 miles; but he says, the passage by sea is much longer. And then adds, Πρωτὴν δὲ Τηόναρον ἀπὸ τῆς Ἀσίας ἀπὸ τῆς Ἰνδίας. Beyond the *Tzinistæ* there is no navigation, or habitable country. *Montfaucon*, *Nov. Col. Patrum*, tom. ii. p. 138. See *infra*, No. 8.

* And hence Dutch in our own language.

³ *D'Anville*, *Antiq. de l'Inde*, p. 179.

⁴ Other names occur in *Ishbrandt Ides*, the *Jesuits' Accounts*, &c. &c.

⁵ *Primi Arabes Seras cum Sinis confuderunt quorum errorum postea secuti sunt alii.* *Vossius ad Melam*, lib. i. c. 2. note 20.

Great Cheen, or Cheena; and by Marco Polo, as Cin, that is Cheen in the mouth of an Italian. The Portuguese likewise, who came from the West, acquired the same sound in their progress towards the East; and from them Cheena, or China, has descended to all the nations of Europe.

Cheen⁶ therefore, by all these several navigators, was obtained as they advanced towards the East; and the first country that bears the resemblance of the sound is Cochin-china, called by the natives, and by the Chinese, Kao-tchii-chin; by the Jesuits, Tchien-tchen; and by the Arabs, Cheen; the Sinia Sinarum of Al Edrissi. If then we reflect that all the kingdoms contained in the Great Chersonese, except Malacca⁷, partake of Chinese manners, habits, policy, and government, it was a natural consequence that the Arabs, when they first reached China, the superior and sometimes the sovereign of them all, should receive the name of Ma-cheen, or Great China, in comparison with these inferior kingdoms.

It is impossible to prove that these appellations are as ancient as the era of Alexander, because history is silent; but the acquisition of the same sound by all the nations which advanced by sea from the West towards the East, from the time of Alexander to the date of the Portuguese discoveries, is a strong presumption in its favour.

The first mention of Thina by the Greeks, is in the Treatise of Aristotle⁸ de Mundo, (if that work be his); but the full notice of it is by Eratosthenes, and as Eratosthenes lived under the second

⁶ Marco Polo says, Mangi is called Chin. in Zipanga, or Japan. This may be an error, for Marco never was in Japan; but it is a proof that Mangi was called Chin, in his age. Lib. ii. c. 4.

⁷ The Malays are supposed to be originally Chinese by Barrow, but their language is alphabetical.

⁸ Aristotle⁸ died A. C. 322; Eratosthenes born 276.

Ptolemy, his mention of Thina is early enough to suppose, that the Greeks had no knowledge of so distant a region before Alexander, and knew it then only in consequence of his expedition.

Though the Macedonians proceeded no farther east than the Indus, they certainly acquired a knowledge of the Ganges and Ceylon: this we learn from history; and if their inquiries went farther, they had Persians, Indians, and Arabians, in their army, from whose report they might gratify their curiosity. If Aristotle, therefore, had heard of Thina, this must be the source of his knowledge; or if the Treatise imputed to him be not his, the knowledge of Eratosthenes must have been acquired, either from the same source, or from those who sailed on board the fleets from Egypt, and met the Arabian, Indian, or Persian merchants in the ports of Sabæa.

Let us suppose, then, that the whole of this was report, and let us conjecture from analogy by what we know, in a later age, to be fact. It would amount to this—that there was a trade between Arabia and India, carried on every year; that the merchants from Arabia met others on the western coast of India, who came from the eastern coast; that those on the eastern coast traded to a country still further east, called the Golden Chersonese; and that from the Golden Chersonese there was another voyage still to the east, which terminated at Thina; and that beyond Thina there was no proceeding farther, for it was bounded^o by the ocean which had never been explored.

A report, coming through no less than five intermediate channels, like this, would doubtless be loaded with much error, fable, and

^o In this, Mela, Pliny, Dionysius, Cosmas, and the Periplus, are all agreed.

inconsistency; but that by some method or other it did come, is undeniable; for the map of Eratosthenes is recorded by Strabo. It actually contained Thina at the extremity of the world east, bounded by the ocean: it was placed in the parallel of Rhodes, in lat. 36° north; and what is most extraordinary of all is, that this parallel passes through the present empire of China, within the great wall. I shall not build more on this than it will bear, but a reference to M. Goffelin's Map, delineated on this principle, will prove the fact; and this fact cannot be founded on imagination, or arise from fortuitous coincidence: there must have been some information on which it stands; and the wonder is, not that it should be attended with many difficulties and inconsistencies, but that, after passing through so many hands, it should retain so much truth.

II. SINÆ OF PTOLEMY IN SIAM, SINÆ OF OTHER AUTHORS,
AND SERÈS THE SAME; PERIPLUS, ERATOSTHENES, MELA,
D'ANVILLE.

THE Thina of Eratosthenes, however, is not to be confounded with the Thina or Sinæ of Ptolemy; for these, whether we place them, with d'Anville, in Cochinchina, or with Vossius and Goffelin, in Siam, are in a very different latitude and position. Their country does not face¹⁰ to the east, but to the west; and their latitude is not 36° north, but $2^{\circ} 20'$ south¹¹. But the Thina of Eratosthenes and Strabo, is the Thina and Sinæ of the Periplus, of which we have a certain proof; because the author says, that silk

¹⁰ D'Anville, by placing them in Cochinchina, makes them face to the east; but in this he opposes Mercator (who had no system to maintain), as well as Goffelin.
¹¹ This is very well argued by Goffelin. Geog. des Grecs, p. 143.

is the produce of their country. This country, therefore, is the Sérica of Ptolemy; and in this sense, the Sinæ and the Sères are the same, that is, they are both Chinese.—We must now advert to the gross error of the Periplus, which places Thina, the capital of the Sinæ, under the constellation " of the Lesser Bear; that is, in the age we refer it to, within twelve degrees of the Pole; a climate which, so far from producing the silk-worm, must be uninhabitable by man. How this error arose, must be explicable only by conjecture; but it appears to originate from one of two causes, which are perfectly different and distinct: for, first, we find the ancient geographers very observant " of the disappearance of the Polar Star, as we advance to the south, and equally attentive to its re-appearance as we approach again to the north; it might happen, therefore, that the navigators who went to China, might have observed the loss of the Polar Star in the Straits of Malacca, and the recovery of it as they approached the coast of China; and this observation, conveyed through a multiplicity of reporters, may have caused the confusion between a latitude which lay under the Lesser Bear, and a latitude where the Polar Star became visible.

But if this cause should be thought too scientific to have given rise to so gross an error, there is a second, much more probable and natural; which is, that if we suppose a delineation of the habitable world, formed upon the principle of that which I obtained from

" Gosselin notices the approach of this star to the Pole. Ptolemy says, in his time it was 12 degrees from the Pole: *Μεγὰρ Ἀπὸ τοῦ ἰσημερινοῦ ἔστιν ἀπὸ τῆς Ἀρκτὸς ἀστὴρος ἐν πέντε καὶ ἡμίσειας ὁμίλιαι*. Lib. i. c. 7. And Gosselin, Geog. des Grecs, tom. ii. p. 127. in the time of So-

lomon, makes the distance 17½ degrees.

" See Pomp. Mela, lib. iii. c. 7. In aliqua parte ejus [Indiæ] neuter septentrio apparent. See also Marco Polo, as he comes up from Ceylon along the coast of Malabar. Lib. iii. c. 23. Ramusio.

Al Edrissi " in the former part of this work, or like the Bergian " Table in Sir Joseph Banks's possession, the degrees of longitude diminish so hastily as we approach towards the north, that they do not leave room to display all the regions which such a geographer as our author, must find it requisite to crowd into the space that he has to cover. This seems to be a natural source of the error which we find in the Periplus; and this opinion is confirmed by what he immediately subjoins: "Thina lies," says he, "at the Lesser Bear " itself; and it is said to join the limits of Pontus," which are towards " the north, and the Caspian Sea, with which the Palus " Méotis is connected, and issues into the ocean at the same " mouth." Here, besides the error common to many of the ancients, that the Caspian Sea was open to the Northern Ocean, we have a variety of other mistakes; added to which, China, Tartary, the Caspian, the Euxine, and Palus Méotis, are all huddled together in such confusion, that nothing but the construction of a map, on the principles here supposed, could produce.

Whether these excuses will avail in favour of an author, whose errors I wish not to extenuate, but explain, must be left to the judgment of others: beyond Ceylon; all he knew was from report; and on report only procured, first by the Macedonians, and afterwards by Megasthenes, Daimachus, Dionysius, and the merchants of Egypt, all the knowledge of the ancients must be founded. But whatever may be the error of position, there can be no mistake about the country intended. The silk fabric itself, and the mate-

¹⁴ The same circumstance occurs in Sanuto's Map, in the *Gesla Dei per Francos*. A little to the N.E. of the Caspian Sea notice is inserted, *Incipit Regnum Cathay*.

¹⁵ In that map, Peking is almost as near China as it is to England.

¹⁶ Perhaps the Euxine.

¹⁷ *Arctopapirus*.

commencing our inquiries from the East, and their country fronted to the east. That there was nothing beyond them but the ocean, was the general opinion of the ancients; for, according to Strabo, "supposing" the world to be a sphere, there is nothing but the "immensity of the Atlantic Ocean, which should hinder us from sailing from Spain to the Indies upon the same parallel."

III. RELATIVE SITUATION OF THE SERES, WITH RESPECT TO SCYTHIA, AND INDIA BEYOND THE GANGES.

If the Sères, then, are the first nation of the known world²² commencing from the east, let us next inquire into their situation relative to the countries north and south. On this head, Mela and Pliny both agree that their boundary on the north²³ is Tabis, and Taurus on the south; that all beyond them north is Scythia, and all beyond them south, is India east of the Ganges. By the latter expression they mean, that the whole country, from the Ganges to the Eastern Ocean, is called India, comprehending all the regions in the Great Peninsula²⁴, which commences at the Ganges, and part also of the southern²⁵ provinces of China itself. What then are Tabis and Taurus, but two promontories advancing into the Eastern

²² P. 64. In respect to the parallel, this would have been true between Spain and China.

²³ In ea primò hominum ab oriente acceptimus, Indos, Seras, Seythas. Spectant meridiem Indi, septentrionem Scythiæ usque ad Caspium. Mela, l. 2.

²⁴ Seres primò hominum qui nascuntur. Plin. vi. 17. or 20 Hard.

²⁵ Inter Tabis et extremum Tauri promon-

torium, Sères. P. Mela, iii. 7.

²³ By the term of the Great Peninsula, I mean all the countries included in a line drawn from the mouth of the Megna, or Brahma-putra, to China, as the northern limit, and the Straits of Sincapura as the southern; comprehending Ava, Arracan, Pegu, Siam, Malaya, Cambaya, Cochinchina, Lao, and Tonkin.

²⁵ The northern part of India, extra Ganges, terminates with Taurus. Strabo, p. 68.

Ocean, and marking the limits of the Ancient Sères? Scythia, according to Pliny, commences at the issue of the Caspian Sea into the Northern Ocean, and extends all round the continent, fronting north and north-east²⁷, till it comes to Tabis, which divides it from the Sères; and what is meant by Taurus may be discovered in Strabo, who informs us, that Eratósthenes prolonged Taurus from the Bay of Iffus in the Mediterranean, across the whole continent of Asia, dividing it by the same parallel²⁸ of latitude, till it terminated on the Eastern Ocean, that is, the Sea of China. At the termination was Thina, on the same parallel as Rhodes, which is 36° north; and this parallel, if we suppose it to be correct, would embrace all the northern part of China, between latitude²⁹ 36° and 40°; that is, if we fix the southern limit at the promontory of Taurus, in 36°, and the northern at Tabis somewhere about 40°. A reference to M. Gosselin's Map³⁰, delineated in conformity to the idea of Eratósthenes, will explain this better than words; and whether these promontories be real or imaginary, this is the hypothesis or system of the ancients. If Tabis has a representative, we might suppose it to be the termination of the Great Wall on the Yellow Sea, which divides China from Tartary; but the Wall does not end in a cape, and this must be left wholly to conjecture.

²⁷ Pliny, vi. 17. or 20. Hard. *estivum orientem.*

²⁸ The cause of this supposition is, that the merchants who crossed this great belt of Asia, at whatever point, it might be where their course directed, never crossed it back again towards the south, but proceeded through Tartary to China. By Ptolemy's route, they passed it in Hircania; by the route of the

Periplus, at Kabul; by the route of the Sestai, or Befadai, in Lassa or Thibet; but Alexander, who came out of Segdiana to the Indus, crossed it from north to south over the Paropamisus, perhaps at the Pass of Barmian.

²⁹ Sères media ferme Eozæ parte incolunt, Indi, et Scythæ ultima. *Mela, l. 2.*

³⁰ *Geographie des Grecs.*

IV. CAPITAL, SERA METROPOLIS.

IN regard to the capital, the Sêra Metropolis of Ptolemy, though it is not indifferent where we place it, yet it may be thought hazardous to maintain that it is Pekin. Pekin, however, or the Northern Court, is one of the oldest cities in China: it is situated near the Wall, and well adapted to form a frontier town against an invasion of the Tartars, the only enemy which the empire has had to fear in every age. It is remarkable also that Ptolemy, in one place³⁴, calls Sêra the capital of the Sinæ, which makes it correspond with the Thina of the Periplus; and this so essentially, that if the great error of the author in carrying it to the Lesser Bear could be set aside, Thina and Sêra Metropolis would be identified. On account of that error, I do not insist upon this; but, upon the whole, the Sêres of Ptolemy coincide with the Sêres of Mela, Pliny, and Dionysius; and his latitude of the capital advancing so nearly to the parallel of Pekin, is one of the most illustrious approximations that ancient geography affords.

Without affecting precision, we have now a position for the Sêres in the northern provinces of China; and this deduction, as it is founded on the information of the ancients, is not much controverted by the moderns. But we have another characteristic of the Sêres, derived from the produce of their country, which is silk:

³⁴ And not in one only. Lib. i. c. 11. Καὶ τὴν ἀπὸ τοῦ Ἰάβου πύργου μέχρι Σήρας τῆς τῶν Εἰνηνών μετροπόλεως. Where the Latin text runs, Uque ad Serras que SERRUM est metropolis. Whether Σέραι, therefore, be a false reading, must be left to the critics; but so it stands in the

edition of Hondius 1605, which I use. The Sêres and Sinæ are again mentioned in conjunction, lib. vi. c. 16.; and through the Sinæ a line may be drawn, μέχρι τῆς ἐκτεθειμένης πρὸς τῇ ἀγρίῳ γῆ ἰεράτος; and these are manifestly not the same as his Sinæ in lat. 2° 20' south.

this beautiful fabric we know, from the Chinese themselves, was the original manufacture of their country—specifically their own, by the prerogative of invention; and though communicated to other countries in their neighbourhood, and from the first mention of it, procurable in the ports of the Golden Chersonese, at the Ganges, and on the coasts of Coromandel and Malabar, still was it so exclusively and pre-eminently the attribute of China, that the Sinae were, from this very circumstance, denominated Sères, or Silk-worms, by the Greeks. D'Anville was fully aware of all the authorities²¹ that support this fact, and yet he objects, that they were styled Sères before it was known that the material itself was the production of an insect.

V. SERES DISTINGUISHED AS MANUFACTURERS OF SILK.

THE mistakes²² of the ancients on this subject; the fluctuation of the first reporters, who sometimes confounded it with cotton, and the opinion which long prevailed, that it was obtained from the bark or leaves of particular trees, have been sufficiently discussed by

²¹ Σήρες, ἕκτα πύθωνα μέταξας, ἢ ὄνομα Ἰθνησίδων ἄλλοι καὶ τὸ ὀλοσέρικον. Hesychius in voce.

Seres, animals that spin the silk thread, or the name of the nation from whence the genuine silk comes: ὀλοσέρικον expresses a web wholly of silk, in contrast to the mixture of silk with other materials in the manufactories of Tyre, Berytus, &c.

Σήρες, σιλκίον τὸ γαστήριον τῶν Σερικῶν. Σήρες γὰρ ἢ σιλκίον. Hesych.

Sérôn, the worms that produce the silk; for Sères is equivalent to worms.

See also Pausanias, Eliac. ii. sub sine.

D'Anville has all these authorities. *Antiq. de l'Inde*, p. 233. And Vossius cites Pollux, Servius, and Simplicius, as all informed of the worm; but certainly the whole process was not known till Justinian's time.

²² Ubicumque apud veteres aut lini aut lanae aut byssi Indici mentio fit, intelligendum id esse de Serico: Vossius ad Melam, lib. iii. c. 7.

The carding it from the leaves of a particular tree, and using water to facilitate the operation, occur in a variety of authors; that is, the cocoon was taken from the mulberry-tree, and wound off in water.

numerous writers on the subject; but that the Arabs had met with it in India before there were any Greek fleets in the Eastern Ocean, can hardly be doubted, by those who read that the Macedonians obtained their first knowledge of it in the countries bordering on the Indus. Hither it must have been brought in that age, either by the trade which passed between Patala and Malabar, or by the caravans through Scythia, on the north; for that in so early an age it was manufactured in India can hardly be admitted, when we observe that the author of the Periplus, four hundred years later, mentions it in Malabar, not as a native production or manufacture, but as an article brought thither from countries farther²⁴ to the east. But in regard to China, his account is very different; for there, he says, both the raw material²⁵ and the manufacture were obtained. The pre-eminence in this respect is still due to the same country; for notwithstanding that almost all the nations of the East, and many in Europe, now breed the insect and weave the fabric, China is still *the Country of Silk*; the greatest quantity is still produced there, and of the best quality: it is the general clothing of the nation, and its superabundance still allows of a vast exportation to all the countries of the East, and to Europe itself.

In the course of this investigation, then, we have learnt from ancient authorities, that the Sères are the Thinxæ of Eratosthenes—the Sinæ of the Periplus; that their country lies between Tartary, on the north, and India extra Gangem, on the south; that it is the remotest region²⁶ towards the east; that it is bounded on its

²⁴ ὁρίσται ἐν τῶν ἑσῶ τόποισιν. P. 32.

²⁵ P. 36.

²⁶ Διὰ μέτρας ἐς τὰ ἑξῆστα τῆς γῆς πῶς ἂν ἄνθρωπος ἀνθρώπος χροῖται, οὐκ οὐκίοντι διαθεῖναι. Cosmas,

p. 137.

Men do not hesitate to go to the extremity of the world for the purchase of the silk thread.

easterly front by the ocean; that the ocean extends (in their opinion), without interruption, on the same parallel to the coast of Spain; and that silk was brought from this country, where it was originally found, to India, and out of India, by the Red Sea, into Egypt, and from thence to Europe.

VI. INTERCOURSE BETWEEN CHINA, INDIA, AND EUROPE; ROUTE FROM PTOLEMY MAES, THE MACEDONIAN.

BUT if silk was brought from the Sères to India, there were but two means of conveyance—by land, or by sea. Both are specified in the *Periplus*; for the author informs us, first, that the raw material and the fabric itself were conveyed by land, through Bactria, to Barugaza or Guzerat, and by the Ganges to Limurikè.—But, omitting this for the present, let us examine what is intended by the route that is described through Bactria to Guzerat. A reference to the map will immediately shew us, that Balk, or Bactria, lies almost directly north of the western sources of the Indus; and as we know that the caravans at this day pass out of India into Tartary at Cabul²⁷, so it is plain that this was the usual course of communication, from the earliest times; and that the silks of China then came the whole length of Tartary, from the Great Wall into Bactria²⁸; that from

²⁷ The whole passage, as it stands in Purchas, is curious:—Beyond Cabul is Taul Caun, a city of Buddocsha (Badakshan). From Cabul to Cashgar, with the caravan, is some two or three months journey . . . a chief city of trade in this territory is Yar-caun, whence comes much silk, musk, and rhubarb; all which come from China, the gate or entrance whereof is some two or three months journey from hence. When they come to this entrance . . .

by license they send some ten or fifteen merchants to do business, who being returned, they may send as many more; but by no means can the whole caravan enter at once. William Finch in Purchas, vol. ii. p. 434.

²⁸ And by another caravan, to Palibothra on the Ganges. Καὶ οὕτως ἐκ τῆς Βακτρίας ἐκτείνονται ἐπὶ τὸν Ἰνδὸν διὰ τῆς Ἀσίας πύργου, ἀλλὰ καὶ ἐκ τῆς Ἰνδικῆς διὰ Παλιμπούθρου. Ptolem. lib. i. cap. 17.

Bactria they passed the mountains to the sources of the Indus, and then came down that river to Patala or Barbárikè, and from hence to Guzerat.

Ptolemy³⁹ has given us the detail of this immense inland communication; for, beginning from the Bay of Issus in Cilicia, he informs us, from the account of Marinus, that the route crossed Mesopotamia, from the Euphrates to the Tigris, at the height of Hierapolis; then through the Garamæi⁴⁰ of Assyria, and Media, to Ecbatana and the Caspian Pass; after this, through Parthia to Hecatompylos; from Hecatompylos to Hyrcania; then to Antioch in Margiana; and hence, through Aria, into Bactria. In this province, the line of Marinus falls in with that of the Periplus; and from this it passes through the mountainous country of the Kômédi⁴¹; then through the territory of the Sacæ⁴² to the Stone Tower⁴³, and to the station of those merchants who trade with the Sères; from this station the route proceeds to the Casii or Cashgar, and through the country of the Itagûri, or Eyghurs of d'Anville, till it reaches Sêra Metropolis, the capital of China itself. The extent of this communication, which is in a right line upwards of four thousand miles, would have been protracted by the estimate of Marinus⁴⁴ to double the space⁴⁵ to which it is reduced by Ptolemy, and yet Ptolemy makes it ninety degrees, or upwards of six thousand miles. But contracted as it is

³⁹ Lib. i. c. 12.

⁴⁰ Aramæi?

⁴¹ I have little hesitation in supposing that the Kômédi are to be placed in Badakshan, as mountains are the attribute of the country.

⁴² The Sacæ, without assigning them precise limits, answer more nearly to the Usbecks than any other tribe. The Stone Tower

would be in the eastern part of their country, towards Kashgar.

⁴³ See Ptol. tab. vii. Asia. Itagûri.

⁴⁴ Ptol. lib. i. c. 11.

⁴⁵ According to Marinus, it was 24,000 stadia from the Stone Tower to Sêra; that is, either 2400 or 3000 miles; the real distance is short of 1400. Ptol. lib. i. c. 12.

by modern geography, it is astonishing that any commodity, however precious, could bear the expence of such a land-carriage; or that there should have been found merchants in the Roman empire, who engaged in this commerce throughout its whole extent—who actually conveyed the produce of China by land to the Mediterranean, without the intervening agency of the nations which possessed the countries through which it passed. But this is a fact actually preserved by Ptolemy; for he informs us from Marinus, that Maes, a Maccdonian⁴⁶, whose Roman name was Titianus, did not indeed perform the journey himself, but that he sent his agents through the whole extent of this extraordinary peregrination.

In what state the Tartar nations then were, which could admit of such a traffic through all these different regions, it is now extremely difficult to determine; for though caravans have passed within these few years between China and Russia, and though there was a communication⁴⁷, and perhaps still is, between that empire and Samarkand, as also with the Usbeeks, this was carried on by the natives of the respective countries, and afforded no passage for merchants to pass throughout, from one extremity of Asia to the other.

VII. MODERN ROUTE—MARCO POLO, RUBRUQUIS, CARPIN, GOEZ.

THERE was a period indeed, during the time of Zingis and his immediate successors, when the power of the Mongoux extended from the Sea of Amour to Poland and the Euxine; and when there was a regular intercourse, by established posts, throughout this vast

⁴⁶ Lib. i. c. 11.

⁴⁷ The centre of this traffic should be Cash-gar; and so it appears in the journal of Benedict Goetz.

extent; by means of this, Marco Polo, his uncle, and his father, Rubruquis, Carpin, and others, actually reached the court of Cambalu, and returned again by passports from the emperor. It was Marco Polo, the first of modern travellers who brought to Europe any consistent account of this vast empire—who entered China by the north, and returned by sea to Bengal. His route outwards is not easy to trace, because his descriptions diverge both to the right and to the left; but it is highly probable that he entered China nearly by the same route as Goez did, from Kashgar: this would have brought him to Sochieu, or some other town in the neighbourhood, to reach which he might not have passed the Great Wall. But if this would account for his not mentioning it in the first instance, it does not solve the difficulty; for the court of Coblai, like that of Kien-long the late emperor, was a Tartar court, frequently kept in Tartary as well as China; and during the many years which he attended Coblai, he must have been in both. He did not bring the name of China to Europe, but Cathai and Mangi only, because he obtained those appellations alone which were in use among the Tartars; and it was several centuries later, before it was known that Cathai and China were the same. We are contending here only for the existence of the communication, and endeavouring to shew, that in the middle ages it was the same, or similar to that of the ancients. But from the time when the empire of the Tartars broke into separate governments, no travellers or merchants from Europe dared to attempt the dangers and exactions which must have attended them at every step, and when the progress of Mahomedism, in these northern courts, brought on an additional suspicion and hostility against every Christian who should have entered their country.

The only attempt in later times, that I am acquainted with, is that of Benediſt Goez⁴⁸, a Portugueze Jeſuit, who left Agra in the beginning of 1603, and proceeded by Lahore to Cabul; and from Cabul, by way of Balk and Badakſhan, to Caſhgar. At Caſhgar, the caravans from India met thoſe which came from China; but ſo difficult was it to proceed, that though Goez obtained the protection of the king of Caſhgar, he did not reach Sochieu, the firſt city within the wall of China, till the end of the year 1605; and at Sochieu⁴⁹ he cloſed his life and his travels, in March 1607, without having obtained permiſſion to go up to Peking, or join his brethren who were eſtabliſhed in that capital.

The undertaking of Goez is one of the moſt meritorious, and his account one of the moſt intereſting, that is extant; for it is a regular journal kept of his progreſs, ſpecifying every country, and every place, through which he paſſed⁵⁰. The enumeration of the days he travelled is three⁵¹ hundred and ninety, beſides ſome that we cannot aſcertain, and excluſive of the delays he met with at various ſtations. But from him we learn, that Sochieu was the ſame ſort of mart for the caravans of Caſhgar, as Kiachta is for the Ruſſians; that it was inhabited half by Chineſe and half by Mahomedans; that the merchants of Caſhgar were admitted into China, and ſuffered to go up to Peking only under the colour of an embaſſy⁵²; that they brought preſents,

⁴⁸ The account of Goez is in Trigault and Kircher, but it is here from Purchas, vol. iv. p. 310.

⁴⁹ The city marked on Marco Polo's Map, where he entered China, is Succiu, which, with the Italian pronunciation, approaches very near to Socieu.

⁵⁰ In all which I believe it is unique.

⁵¹ As eſtimated by Bergeron, tom. i. *Traité des Tartares*, p. 75. I cannot make them fo many.

⁵² The ſame ſort of trade he mentions likewiſe from Cochîn-china, Siam, Leuchieu, Corea, and eight tribes of the Tartars: they all come under pretence of an embaſſy, and all the preſents they bring are ſtyled Tribute: the emperor

presents, which the Chinese called Tribute, every sixth year; that from the time they pass the frontier, the emperor bore the charge of the embassy; and that the articles of commerce brought from Cashgar, were beautiful slabs of jasper, or variegated marble, and something that appears to be the agate, which we know, from Lord Macartney's account, the Chinese value so highly at the present day. Throughout the whole, the courage, perseverance, address, and patience of Goez, place him in the highest rank of travellers: he was deserted by all his companions but an Armenian boy, of the name of Isaac; and Isaac was so fortunate as to reach Peking, from whence he was sent to Macao, where he obtained a passage to the Portuguese settlements in Malabar. Here he gave the account of his master's expedition and decease; and more particularly mentioned the surprize of Goez, in finding that Cathai was China, and Cambalu, Peking.

Exclusive of the communication between Russia and China, which has been several³² times interrupted and renewed. This journal of Goez is the only authentic information to be depended on; and it is of the greater importance, as it is a line much farther to the south than the route of the Russian caravans, and actually coincides with the detail given by Ptolemy, and implied by other ancient geo-

emperor bears all their expences as soon as they enter China. In this, then, consists the policy—that if he bears the expence, he has a right to limit the time; and he affects to know of no embassies but from his tributaries. Apply this to Lord Macartney's embassy, and it proves why the ambassador was compelled to depart at a given day, and why his presents were inscribed with the name of Tribute.

The same circumstances are repeated by

Jofafa Barbaro (in Ramusio, tom. ii. f. 106.), which he received from a Tartar on the Don, who had passed from Samarkand to China, which was the course of the northern caravans in that age, 1450; and silks, though then made in Persia, formed the principal article of the trade. This Tartar had been at Cambalu; had been introduced to the emperor, and referred to the ministers, &c. &c.

³² See Ibrundt Ides. Bell. Cox's Russia.

graphers; for Badakhsian, the Badakhsan of Cherif Eddin, is the natural representative of Ptolemy's *Cômèdi*⁵⁴, and Kashgar, the country of his *Casi*. Kashgar is likewise a kingdom of much importance, and a country of great extent; for Goez was employed from sixty to sixty-five days in passing it, and he had still from forty to fifty before he reached Sochicu.

VIII. ROUTE OF THE SĒSATÆ FROM ARRACAN TO CHINA.

LET us next examine the ancient accounts, in regard to this and other routes of the same fort. The first author that specifies this intercourse by land is Mela⁵⁵: he says, the *Sères* are a nation celebrated for their justice, and have become known to us by their commerce; for they leave their merchandize in the desert⁵⁶, and then retire, till the merchants they deal with have left a price or barter for the amount, which, upon their departure, the *Sères* return and take. This assertion is repeated again by Pliny, and confirmed by the *Periplûs*⁵⁷; for that the *Sêfatæ* of that journal are the Tartar tribes which trade with China, cannot be doubted: the extravagances recorded of them, the

⁵⁴ If we may judge by the mountains attributed to both. Timur had always a body of Badakhshans in his army, for the purpose of passing straits, climbing mountains, &c. according to Cherif Eddin.

⁵⁵ Lib. iii. c. 7.

⁵⁶ *Commercium . . . rebus in solitudine relictis absens peragit.* Mela, lib. iii. c. 7.

⁵⁷ Ammianus Marcellinus (lib. xxxiii. p. 381. Paris, 1681) has recorded the same character of the *Sères*, and the same mode of conducting their commerce with foreigners; but with the addition of a curious particular: that

silk had formerly been confined to the great and rich, but in his time was within the purchase of the common people (*nunc etiam ad usum infimorum sine ulla discretione proficiens*). This circumstance proves, not only the great extension of commerce at Constantinople within thirty years after its foundation, by which the material was obtained, but likewise the proficiency of the manufacturers [perhaps at Tyre and Berytus] in preparing it for the market. The whole passage is worth consulting.

articles⁵⁸ mentioned, throw a shade of obscurity over this transaction; but that a fair⁵⁹ or mart is held for several days, and that the goods are left to the faith of those they deal with, is evident; and that this is a characteristic⁶⁰ of the Chinese trade, from the age of Mela to the establishment of Kiachta, is the uniform testimony of all that mention the commerce. Now that the Sésatæ are a Tartar tribe cannot be questioned, when we find them described in the Periplus; for they are a race of men squat and thick set, flat nosed, and broad faced. They travel with their wives and families, and convey their merchandize enveloped in sacks or mats⁶¹. These are manifestly the Bésadai, or Bésatai, of Ptolemy, described under the same attri-

⁵⁸ The malá bathrum is attributed to the Sésatai by the Periplus; and though it is much more natural that the Tartars should obtain betel from the Chinese, than the contrary (and so Vossius renders it), yet that the Sésatai and Bésadai are the same, cannot be doubted. The words of the Periplus are, Σάματα κολοβά, καὶ σφέρα πλατυπρόσωπα, σιμὰ ἐς τίλος. Of Ptolemy, Κολοβά, πλατύς, καὶ βουίς, καὶ πλατυπρόσωποι. Ἀπὸ μὲν τῶν χερσῶν ἐπιήθη τὸν Κιββάδου ἐν τῇ φασὶ γίνεσθαι τὸ κάλλιστον Μαλά-βαθρον. Now the Kirrhadii of Ptolemy are at the eastern mouth of the Ganges, and there the betel might grow, or be procurable; and if the Bésadai were seated on the north of that country, they would be in Lassa or Thibet, both of which are Tartar countries, and might well be engaged in conducting this traffic between China and Beugal, or perhaps Arracan. But whatever obscurity there may be in this, it appears evident that Ptolemy and the Periplus mean the same people; and, by the similarity of expression, copied from the same authority. It ought likewise to be observed, that Σιμὰ ἐς τίλος, as it now stands in the Periplus, is a reading of Vossius for σιμὰ,

or σιμὰ, or something unintelligible in the first copy of the Periplus. Upon the whole, therefore, if we interpret the Periplus by Ptolemy, and conclude that the Sésatai brought the betel from Bengal or Arracan, making them the same people as the Bésadai, we have a consistent account of this article reaching the northern provinces of China, as it reached the southern by sea. That the betel should be procurable in Arracan, is reasonable; for it grows abundantly in Ava. Symes's Embassy, p. 255. See also Dr. Buchanan's Account of the Burmas, As. Researches, vol. v. p. 219.

⁵⁹ Vossius reads ἐπιπέσειον for ἀγοράζουσι.

⁶⁰ Cæcum reliquorum mortalium fugiunt, commercia expectant. Plin. vi. 20. Expectant?

⁶¹ Ἐν ταρπώσις, in firpeis; mats made of rushes, bags, or sacks. So the Scholiast on Dionysius, 757. Ὅτι δὲ Σέραι πωλοῦσι ἕως ἰσοκρίσεως, τὸ τίμημα ἐπιγράφοντες τοῖς ΣΑΚΚΟΙΣ καὶ ὁ ἕκτορας ἐξ ἐπιγραφῶν ποιῶνται τὰς ἀποκρίσεις.

The Sères, who are the sellers, make the first proposal, by marking the price on their sacks; and the buyer, according to the mark, fixes his price in return.

butes, and almost in the same words, with the addition, that they are of a white complexion⁶²; and that the malábatiron, or betel, is brought by them from the country of the Kirrháda, at the eastern mouth of the Ganges.

Here, therefore, we may discover another line of intercourse between India and China, which passed the mountains of Thibet⁶³, and joined the route which came from Cabul and Balk, or reached the southern provinces of that great empire by a shorter course; and this, perhaps, may explain a dubious⁶⁴ passage of the Periplus already noticed, and may instruct us how the silk of China came down the Ganges, or the Brama putra into Bengal, and from thence passed by sea to the coasts of Coromandel and Malabar.

The northern communication with China is intimated likewise by Dionysius, who, after leaving the Oxus, the Iaxartes, and the Caspian Sea, on his progress eastward, mentions in order, the Sacæ, Tocharoi, the Phrooroi, and then the Sères. If he had taken these regularly, the Tocharoi would have been the Tartars of what is still called Tocharistan⁶⁵, the Sacæ would be the Usbecks, and Phrooroi (possibly the Greek word $\phi\rho\rho\rho\rho\rho$ ⁶⁶, as an appellative, and not a proper name) expresses the guard or garrison at the Stone Tower in the country of the Sacæ, or the station in the territory of the Casii, from whence the caravan proceeded to the Sères. I mention these circumstances not so much on account of the geography, for

⁶² Ptolemy, p. 177.

⁶³ The same intercourse between Thibet and China is mentioned at a mart called Silling or Siniog, by Turner, p. 372. Embassy. — Rhubarb is noticed, p. 294.; and the white quartz grit-stone, for Porcelane, p. 390.

The trade between China and Ava is carried on at Joo. Symes's Embassy, p. 325.

⁶⁴ See supra, p. 478.

⁶⁵ The Turkistan of the Arabs.

⁶⁶ But Pliny writes Thuri, $\theta\upsilon\rho\rho\rho$. Salm. 589.

we are dealing with a poet, as for the purpose of introducing his beautiful description of the silks woven by the Sères :

. Σηρῶν,
 Ὅτε βόας μὲν ἀναίνονται, καὶ ἴφια μῆλα,
 Ἄϊόλα δὲ ζαίοντες ἐρήμης ἀνθεα γαίης,
 Ἐμματα τεύχουσιν πολυδαίδαλα, τιμήντα,
 Ἐιδόμενα χροῖῃ λειμωνίδος ἀνθεσι πείης·
 Κείνοις ἔτι κιν ἔργον ἀραχναίων ἐρίσειεν.

Nor flocks, nor herds, the distant Sères tend ;
 But from the flow'rs that in the desert bloom,
 Tinctur'd with every varying hue, they cull
 The glossy down, and card⁶ it for the loom.
 Hence is their many-coloured texture wrought
 Precious, and bright in radiance, that transcends
 The mingled beauties of th' enamel'd mead.
 A web so perfect, delicate, and fine,
 Arachne and Arachne's progeny
 Might emulate in vain⁶.

⁶ Virgil supposed the Sères to card their silk from leaves :

Velleraque ut foliis depectunt tenuia Seres.

Strabo, who does not mention the Seres, still notices *Serica*, or silk : Ἐκ τῆσδε φλοιῶν ξυνομήνης βύσσου. P. 693. Byssus, or a fine material carded from the bark of a particular tree.

Pausanias meant to correct them both, when he wrote ἡ μία δὲ ἄρ' ἂν γὰρ ἐσθλοῦσιν παιδῶν ἐ Σήρας ἀπὸ ἄλλοῦ φλοιῷ, τρέφουσιν δὲ ἕτεραν γένουσι ταύτης, Ἔστιν ἐν τῇ γῆ ζυφίων σφίον ὃν Σήρα κάλλουσι ἐ Βύσσου.

The thread from which the Sères form their web, is not from any kind of bark, but is obtained in a different way ; they have in their country a spinning insect, which the Greeks call *Seer*. 11 *Elluc. in fac.*

But Pausanias, though he had learnt that it was a worm, had not learnt more : he supposed it to live five years, and that it fed on green haulm. The workmen of Tyre and Berytus wrought the *metaxa*, or *organzine*, imported long before the perfect nature of the animal or the material was known. The true history and management of it were not complete, till the monks obtained it for Justinian.

⁶⁶ In honorem Deorum (coronas) *versicolores* veste Sericâ, unguentis madidas. Hunc habet novissime exitum luxuria foeminarum, Plin. lib. xxi. c. 8. Hard.

We observe here, not only the light-flowered silks, but the introduction of them into religious ceremonies, as early as the time of Pliny.

IX. INTERCOURSE BY SEA.—MELA, RAJAH OF PLINY, COSMAS
INDICOPLEUSTES.

I HAVE dwelt more particularly on the silk of China, because it is as essentially the distinguished produce of that country, as the pepper of Malabar, the muslins of Guzerat, the myrrh and frankincense of Arabia, are characteristics of these several countries; and I am very anxious to prove the communication with China by land, because it will presently appear that there was another line of intercourse by sea. If, therefore, the access both ways can be established, China alone, whether denominated Thina, Sinæ, or Sères, must be the country intended; for no other can be approached by these two different ways; and these two, opened from the earliest accounts we have in history down to the present day, denote exclusively the appropriate character of that vast empire, as these circumstances can be applicable to no other. The establishment of this truth will afford a ready solution of the difficulty which arises from the position of the Sinæ in Ptolemy: they cannot be in China; and if we accede to the opinion of M. Gosselin, that they are in Siam, we must conclude that Ptolemy, who gives so imperfect an account of the voyage to Cattigara, knew nothing of a farther intercourse by sea with the Sères, and that it was unknown in his age.

Mela, however, is said to assert it, if we may believe the interpretation of Vossius; but in Mela nothing more appears, than that from Colis to Cudum the coast is straight. His Colis is the southern point of India; and Cudum, according to Vossius⁶, implies the Çudutæ of Ptolemy, who are the nation nearest to the Sères. The

⁶ In Melam, Lib. iii. c. 7.

accuracy of geography we are not concerned with here, but the assertion; and what is meant may be seen by consulting M. Goussier's ⁷⁰ Map of Eratosthenes. But this evidence is dubious and obscure, and conduces nothing to the proof of any voyage performed. Little more satisfaction shall we receive from Pliny or the Periplus; for the father of the Rajah, who came upon the embassy from Ceylon to Rome in the reign of Claudius, did not reach the Sères by sea, but passed from India over the mountain Emodus, the Himalu of the Hindoos, and thence by an eastern route arrived at the country of Sères, with whom he traded under the same restrictions as the merchants from Persia and Europe, or the Sêsata mentioned by the Periplus.

Cosmas, as far as I can discover, is the first author that fully asserts the intercourse by sea between India and China; for he mentions that the Tzinistæ brought to Ceylon silk, aloes, cloves, and sandal-wood. The articles themselves are the specific exports of China still; and that the Tzinistæ ⁷¹ are Chinese, can not be questioned; for he expressly mentions their country, not merely as exporting, but producing silk; and specifies the distance from it by land as much shorter, compared with the voyage by sea. This circumstance can accord with no other country, at the extremity of the east, but China; for no other country is so situated as to have this double communication, consequently his Tzinistæ are Chinese; they have the same attributes as the Sères—they are the same people; first, by the means of approach; and, secondly, because

⁷⁰ *Geographie des Grecs.*

⁷¹ Vossius supposes the Siamese to have settled in Ceylon; and a temple found in Ceylon by Capt. Colin Mackenzie, resembles

the temples in Ava, Pegu, and Siam. Still the orthography of Tzinistæ is so essentially Chinese, that it precludes all doubt. See *Al. Recherches*, vol. vi. p. 438.

they are furrounded by the ocean on the east, and because that beyond them there is no navigation²² or habitation. This is the one point, above all others, which I have laboured to establish by this disquisition; and though I obtain not my proof till the sixth century²³, the evidence is consistent in all its parts, and complete. The inference is justifiable, that the same intercourse existed by sea, as well as by land, in ages much earlier, though the account had not reached Europe, and though the proof is defective. It is in vain that I have searched for any intelligence of this sort previous to Ptolemy, though I was very desirous to find it, and prepossessed in favour of its existence.

Two passages in the *Periplus* had almost induced me to press the author into the service, and compel him to bear testimony to the fact. The first is, where he mentions the difficulty of going to, or coming from China; the second, where he notices that the malá-bathrum is brought from Thina by those who prepare it. But, upon a scrupulous review of these passages, I am persuaded that he considers only the communication by means of the Indus or the Ganges; and that though he allows an exterior sea on the east of China, the last place that a voyage by sea extended to, in his idea, was the Golden Chersonese. Had I formed a system, the want of such an evidence would have been a vexatious disappointment; and the more so, as my first contemplation of his language had persuaded me that I could apply it to this proof.

²² Περὶ τῆς ἑσπέρης τῆς Ἰνδίας ἡδὲ πλείων ἄλλων χωρῶν. Cosmas, p. 138. Montfaucon, Nov. Col. Patrum, tom. ii. ²³ The date of Cosmas's work is 547, according to Montfaucon, Prefat. cap. i.

X. GOLDEN CHERSONESE, VOYAGE FROM CEYLON THITHER,
COAST OF COROMANDEL, MASULIPATAM, GANGES, ARRA-
CAN, AVA, SIAM, CATTIGARA.

THE next point to be considered is, how it should happen that Ptolemy should be unacquainted with the intercourse between the Golden Chersonese and China; that his information should terminate with the Sinæ and Cattigara, which, to all appearance, are on the western coast of Siam. But he acquaints us candidly himself, that though Marinus⁷⁴ had heard of the journey performed by the agents of Maes through Scythia to the Sères, he had no account of any one who had made the voyage by sea from the Golden Chersonese to Cattigara: all that he knew therefore, even of Cattigara, was from report; and much less could he know of all that was beyond it, that is, of all that was to the east of the Straits of Malacca.

The first view of his map would naturally suggest the idea which M. d'Anville has embraced: it looks like the termination of the peninsula of Malacca, and rises up again northward to his Sinus Magnus, as if we were entering the bay of Siam⁷⁵, the sea of Cochîn-china, and China. But when we observe his Sinæ placed on the same parallel with Malacca, and his Cattigara carried down eight degrees⁷⁶ to the south, we see at once that both must be placed on a coast that has no existence, except in that vast imaginary

⁷⁴ Τὸ δὲ ἀπὸ τῆς Χερσῶν Χερσονήσου ἐπὶ τὰ Καρ-
θῆγον, διὰ τὴν τὴν γαλιανήν ὁ Μαρῖνος ἐκ ἐπιθι-
του. Lib. i. c. 14.

⁷⁵ Siam extends, or did formerly extend, across the peninsula; and the great bay, after passing the Straits of Sincapura, is therefore called the Bay of Siam.

⁷⁶ This is one of the circumstances that does not accord with the positions of M. Goffelin, assigned to Thina and Cattigara; but the deficiency of information requires great allowance. Perhaps it was not necessary to fix Cattigara at Merghi.

continent which he has brought round the whole Southern Ocean, from Africa, in longitude 80° , to Cattigara, in 180° .

It is this circumstance which compels us, notwithstanding the appearance of his map, to coincide with the opinion of Vossius and M. Goffelin, that in reality he does not pass the Straits of Malacca and Sincapura; but that the account, which he had from report, carried him no farther than the western coast of Siam. On this head it has been already noticed, that Mercator, who had no system to maintain, makes the coast of the Sinæ front to the west, and this the latitudes and account of Ptolemy require; but if we place the Sinæ, with d'Anville, in Cochin-china, the face of the coast is reversed—it fronts to the east, or south-east, and makes Ptolemy in contradiction with himself.

Let us then suppose, either that the personal knowledge of the Greeks ended with Ceylon, and that all beyond was obtained by inquiry of the natives, and the merchants who came from the East; or else, let us assume that some few Greeks had penetrated farther. In either case, we may discover that the information was defective, both from the language of the geographers, and the construction of their maps; still we can follow their authority with a sufficient degree of consistency, till we arrive at the Golden Chersonese; beyond that, though the reports continued of the Sères and other distant regions, the fabulous prevailed over the reality. It is not saying too much, if we conclude all the ancients under deception in this respect, without exception—it is not attributing too much to Marco Polo, when we say, that he was the first European who passed by sea from China to India, and thence to Europe; or at least, the first whose writings testify that his account of this voyage,

and

and this empire, is not founded on report, but personal knowledge and experience.

Is it meant then to assert, that the voyage was never performed previous to his time? Certainly not. He lived in the thirteenth century; and almost four centuries before that period, we know that the Arabs traded regularly from Siraf, in the gulph of Persia to China; and that the Chinese came to Malabar, perhaps to Persia and Arabia. But this Arabian account, though we have it now, reached not Europe previous to Marco Polo; and if this was true four hundred years before his time, though we were still ignorant of it in Europe, it is just, by analogy, to conclude, that the same voyage was performed as many ages antecedent to the Arabian account, as that is previous to Marco Polo. Cosmas⁷⁷ asserts it in the sixth century; and the whole contributes to establish the general admission of the fact by inference, though the proof is defective.

The first error in this respect commences at Ceylon, the magnitude of which is irreconcilable with its actual extent; but as Mela asserts, that no one had ever circumnavigated⁷⁸ it, it is natural to

⁷⁷ Ἡ Τζινίστα τῆς μετὰ τῆς Βάλισσα, ἧς ἰδιότῃρ ἄρ ἔστιν ἰσθμὸς χῆρας· ὁ Ὀκεανὸς γὰρ αὐτὸν κυκλεῖ κατὰ ἀνατολῆς.

Tzinista, which produces silk, beyond which there is no country, for the ocean encircles it on the east. This assertion proves, first, the silk organzine of China; secondly, that China is the same as the Sères of Mela and Pliny [primi hominum qui nascuntur]; and thirdly, that Tzinista is not the Thina of Ptolemy; for his Thina is encircled by the ocean on the west. And again,

Ταπροβάαν . . . ἀπὸ τῶν ἰδιοτῆρων, λόγῳ δὲ τῆς Τζινίστας, δέχεται μέταξον, ἀλοὴν καρμυθιλλοῦ, Τζανδάνη καὶ ὄσα κατὰ χῆραν ἔσσι.

⁷⁸ Taprobana, or Sclediba, receives from

“ the countries farther east, particularly from
“ the Chinese, silk, thread, aloes, cloves, sandal-wood, and whatsoever else is the produce of the country.” We learn by this, that the cloves of the Moluccas reached Ceylon through the medium of China; from whence it follows, that the Chinese traded with the Moluccas in that age on the one hand, and with Ceylon on the other. Cosmas, Montfaucon, p. 337.

This account is in harmony with the account of the modern trade of the Chinese, by Martini. P. 120. & seq.

⁷⁹ Nec quisquam circummeasse traditur. Mela, lib. iii. c. 7.

amplify all that is unknown; and the magnificent terms in which this island is always spoken of in India, might naturally contribute to the deception. Its distance also from the continent⁷⁹ is another error, which Vossius attempts to reconcile by supposing that the measure is taken from Coulam, or Covalam, to Point du Galle, because Pliny says, the harbour is on the southern side. Pliny likewise, as well as Mela, supposes the circumnavigation unattempted; and describes the passage through the straits of Manar with incorrectness indeed, but not with less difficulty than Barthema passed them, almost fifteen hundred years later, when they still continued the usual⁸⁰ passage for travellers and merchants.

But from Ceylon, notwithstanding the mistake relative to the position of the coast, we can proceed with Ptolemy (who had obtained the native appellations of the country as wonderfully here as every where else), without hesitation to the Ganges; for we find

Paralia Sore-tanum	=	the Coast of Coro-mandel.
Nigama ⁸¹	- -	= Negapatam? D'Anville.
Chaberis River	-	= the Cavery in Tanjour.
Arcati Regia	-	= Arcot.
Maliarpha	- -	= Meliapor, St. Thomè, near Madras.
Mefolia ⁸²	- -	= Masulipatam.

In the district distinguished by this name we are to fix the point or cape, where those who left the coast took their departure to cross the bay of Bengal, and make their passage to the Golden Chersonese. This point, which has no name in Ptolemy, M. d'Anville has, with

⁷⁹ Twenty days in the ships of the country, seven in the vessels from Egypt. Both distances are in excess; for, from Covalam to Point du Galle is little more than 200 miles.

⁸⁰ Barthema, lib. vi. c. 2.

⁸¹ The position of Negapatam answers; but whether it is ancient, may be questioned.

⁸² Written Masalia in the Periplus.

great propriety, fixed at Gordaware, a cape near the mouth of the Godavery, and from which it seems to take its name.

The whole of this course, from Ceylon to Mesolia, is in correspondence with the Periplus, and apparently with the account of the Arabs³³ in Renaudot. In all three, there is no appearance of a direct passage by the monsoon from Ceylon to the Golden Chersonese; and if Ptolemy's traders passed from the Godavery at once to the opposite shore, it is the boldest³⁴ adventure of the whole.

Concerning the Ganges there is no difference; but the Kirrhádæ of the Periplus are west of the Ganges, and those of Ptolemy to the eastward. In this there can be little doubt that Ptolemy is the more correct; and unless a name deceives me, I find in his Kirrhádæ the Kádrange of the Arabs, and the Arracan of the moderns.

We are now to enter upon the Great Peninsula, comprehending provinces distinguished by the titles of Gold, Silver, Brass, and the Golden Chersonese, off which lies an island of Barley, with its capital called the Silver City. The mere assemblage of these names is sufficient to prove, that they are fictitious and imaginary; and received, as they must have been, by report, they must be attributed either to the vain glory or caprice of the reporters, and not to the invention of the Greeks. Yet even here, Ptolemy preserves his privilege in recording some names that cannot be mistaken, and which afford us the means of ascertaining the country we are to enter on, however deficient we may be in particulars.

³³ The Arabs first mention the island of Najabalus, and then Betuma, or Meliapor; if, therefore, Najabalus be the Nicobars, they crossed half the bay of Bengal, and returned to the coast of Coromandel. D'Anville supposes Nichobar and Najabal equivalent.

³⁴ Scrupulous attention to the monsoons is necessary for crossing the bay of Bengal, as I learn from the Oriental Navigator, and likewise to the parallel on which it is to be passed.

How little of the detail of this coast can be depended on, may be seen by comparing a few of the names with the positions assigned them by d'Anville and Gosselin :

PTOLEMY.	D'ANVILLE.	GOSELLIN.
Sada.	Sedoa.	Rajoo.
Berabona.	Barabon.	
Temala.	Cape Negrais.	Botermango.
Berobè.	Mergui,	Barabon.
Aurea Chersonesus.	Peninsula of Malacca.	Ava, and Daona. River of Ava.
Magnum Promontorium.	Cape Romania.	Pointe de Bragu.
Zaba.	Sincapura.	Bragu.
Magnus Sinus.	Gulph of Siam.	Martaban.
Sérus Fluvius.	Menam. River of Siam.	River of Pegu.
Sinæ.	Cochin China.	Siam. Tanaferim.

Now, though I am convinced with Gosselin, that the Great Bay, the River Serus, and the Sinæ, are all west of the Straits of Malacca, and persuaded that the Sinæ are in Siam, it is not necessary to accede to his opinion, that Sinæ⁸⁵ Metropolis is new in respect to Ptolemy, or that Ptolemy knew nothing of Java; for Iabadioo, according to Greek pronunciation, is strictly Java-diu, the Island of Java. Ptolemy's position of this island is of no importance; for he has hardly one island correctly placed from Africa to Siam, and his ignorance of its extent is no more extraordinary than his augmentation of Ceylon. But the surprize is, that he should have obtained the name of Java; and whether we attribute this to the island now called Java, or to Sumatra, which M. Polo calls Java Minor, the appellation itself may well excite our astonishment. There is, how-

⁸⁵ M. Gosselin's opinion does not seem again to Thina of Eratosthenes, compared founded on the distinction between Sinæ and with the Thina or Sinæ Metropolis of Ptolemy. If it were so, we must refer

ever, only one point in Ptolemy which can cause any doubt respecting the position of the Sinæ in Siam; which is, the mention of Ta-mala and Malai-oo Kôlon; for however the first may be questioned, the second so positively intimates the country of the Malays or Malacca, that we cannot help attending to the connection. The placing of this likewise in the neighbourhood of the Pirates, which has been the character of the Malays in all ages, contributes to the same supposition. I do not mention these circumstances for the purpose of invalidating M. Goffellin's system, for upon the whole I accede to it; but still the question is not cleared of all its difficulties; and it seems highly probable, that as Marînus had no evidence from any one who had performed the voyage either to the Golden Chersonese or Cattigara, that Ptolemy had no information which was consistent to direct him.

That the voyage itself was performed by native merchants may nevertheless be admitted, not only as it may be collected from the accounts of later ages, but as it is asserted by Cosmas. Desirous as I have been to find an earlier testimony of this, I have not succeeded; for though the Periplus mentions the very large⁶⁶ vessels fitted out on the coast of Coromandel, the limit of their progress was Khrusê, and short of Ptolemy's Cattigara. The remainder of the course to China does not seem to have reached Europe, even by report⁶⁷.

What

⁶⁶ Kolandiophonta. See Capt. Wilford's Chronology of the Hindoos, *Asiatic Researches*, vol. v. p. 283. where he says, this expression means *Coilan boats or ships*.

⁶⁷ At l'arnassari, as Barthema writes, which is nearly in the same situation as the point from whence the fleets sailed, according to Ptolemy (*Grynæus*, p. 227. lib. vi. c. 12.).

His est varius multiplexque navigationum usus, fulcunt alii maria *velocibus* complanatis admodum, quæ altiores aquas minime expolent; alii navigant *Liburnicis* geminam proram habentibus, geminamque malum absque tecto; est et *aliud onerariis navis genus* quo enormia onera comportantur, nam ferunt aliæ ex memoratis onerariis navibus supra mille mercium dolia.

What then is the Golden Chersonese? a question easy to resolve generally, but very difficult to apply in its result to the different authors who have mentioned it. It is the most distant country east, according to Dionysius⁸⁸ and the Periplus: it is called an island by both; an island of the ocean, by the latter, and placed adjoining to the eastern mouth of the Ganges. According to Mela, it is an island at the promontory Tamos. If Tamos⁸⁹ be the Tamala of Ptolemy, that cape must be either in Ava or Pegu, as we adopt the system of d'Anville or Gosselin; and if it must be an island⁹⁰, we might place it at the mouth of the Ava river, which passes through Pegu to the sea, and forms many islands at its different mouths. Here also Gosselin fixes his Golden Chersonese, and the river Chrysoana; but Ptolemy has two provinces—one of gold, and one of silver—before he arrives at the Chersonese; and if his Kirrhadia be Arracan, these provinces must be on the western coast of Ava, above the Golden Chersonese of his arrangement. All this mention of gold would surely direct us to some conclusion, from the general nature of the country; and it does seem very probable, that both

dolia. Imponant his vastioribus navigiis cymbas, naveque actuaras in urbem Malacha nomine deferendas, quibus captum proficiscuntur aromata.

If Barthema had seen the Periplus, he could not have employed language more conformable to it; for we have here the light vessels, which answer to the sangara and monoxyla; and others of a thousand tons, corresponding with the kolandrophonta of our author: we have the same trade from Coromandel to Malacca, and the cargo obtained there consists of spices and silk. P. 232.

⁸⁸ Lib. 589.

⁸⁹ Tamos promontorium est quod Taurus attollit. Mela, iii. 7.

If Taurus were the only difficulty here, we could frame a solution of it; for Taurus is found in China and at the Indus, and this might be a chain branching from it in Ava, according to the idea of Mela.

But that Tamtos is Tamala, or something near it, is evident; for it is added, ad Tammum insula est Chryse. . . . Aut ei solj. . . aut ex re nomen, aut ex vocabulo ficta fabula est. Ibid.

⁹⁰ An island, or a chersonese, are the same in Arabic, and from Arabs the Greeks possibly had their intelligence.

the wealth and ostentatious display of it in Ava, Pegu, and Siam, may well have given rise to the report which attributed so large a share of the precious metals to this great peninsula. The glory of Pegu and Siam has sunk under the ascendant of Ava; but in all these courts, the exhibition of gold in their temples, public buildings, galleys, habits, and decorations of every kind was, while they existed, the summit of Oriental pomp, as it continues in Ava⁹¹ to the present time; and if we should chuse to carry the Silver Metropolis of Iabadoo⁹² to Sumatra, the splendour of Acheen, in its better days, would bear its proportion to the gold of Ava.

In this view it is natural to accede to the position of the Golden Chersonese by Gosselin; and if this be granted, his Sinæ and Cattigara in Siam follow of course. Some difficulties in the way of this conclusion have been already noticed, and a greater is, that Ptolemy should be ignorant of the voyage to the Sères; but doubtless he went as far as he was authorized by the information he had obtained. I feel a regret in acknowledging this, because I should rather have received the confirmation of this great geographer on the subject, than build it on inference or analogy. The evidence of Cosmas is all that remains, to prove that there was a communication by sea between India and China; and this is the point material to insist on, because the intercourse through Tartary, on the north, is indisputable; and if both these means of approach be established, the country of the Sères must be China; for these circumstances cannot be appropriate to any other country at the extremity of the East.

⁹¹ See Symes's Embassy to Ava, pp. 186. 328. 413. 424. & passim.

⁹² Ptolemy has dico or diu in another form applied to a neighbouring group, Saba-dibæ,

which is Sava-dive in the mouth of a Greek; fluctuating between the two letters like Selen-dib and Selen-dive.

XI. LONGITUDES AND LATITUDES OF PTOLEMY, HOWEVER IN EXCESS, STILL THE CAUSE OF MODERN DISCOVERY; NAVIGATION TOWARDS THE WEST FROM SPAIN—ROGER BACON, COLUMBUS, MAP OF PTOLEMY; EULOGY OF PTOLEMY.

IN the whole of the attempt in which I have been engaged, from the voyage of Nearchus to the close of the present work, it has been my endeavour to trace the progress of discovery, as carried on by the Greeks and Romans, from the time of Alexander to the reign of Justinian⁹⁹; and the only object of consideration remaining is, the extent of their knowledge in Longitude and Latitude. The excess of longitude in Ptolemy is the subject of universal complaint; but this excess arises, in the first instance, from his assumption of five hundred stadia for a degree of a great circle; and secondly, from the vague method of calculating distances, by the estimate of travellers and merchants, and the number of days employed in their journies by land, or voyages by sea. Respecting this last source of error, Ptolemy was upon his guard; for he repeatedly corrects the excess resulting from the calculation of days by Marinus, and reduces it sometimes a third, and sometimes an half, or even more. After all, however, we have an hundred and eighty degrees from the Fortunate Islands to Cattigara, upon a space that in reality occupies less than an hundred and twenty. So that the ancients, instead of knowing one-half of the globe which we inhabit, in fact knew only one third: still they knew that the earth was a globe; and one cause of their error, among others, perhaps was, that they had a desire to cover as much of it as they could.

⁹⁹ The date of Cosmas, anno 547, is the 21st of Justinian.

The error in latitude⁶⁴, on the contrary, was so small, that in a view of this kind it is not worth regarding; for if we take it from the parallel through Thulé to the parallel through the Cinnamon Country, at eighty degrees, the difference from the truth is not more than six or seven degrees upon the whole, and with this we have little concern.

But upon the excess of longitude depended, ultimately perhaps, the grand problem of circumnavigating the globe, and the origin of modern discovery; for as Strabo⁶⁵ had said, that nothing obstructed the passage from Spain to India by a westerly course, but the immensity of the Atlantic Ocean; and as all the early navigators of Portugal had some acquaintance with Ptolemy, so from the first moment that the idea arose that a passage to India, or a circumnavigation, was possible, the account of Ptolemy lessened the difficulty by sixty degrees. When Columbus, therefore, launched into

⁶⁴ The latitude of Thulé is 64° north, in Ptolemy, and the parallel through the Cinnamon Country 16° 24' south; that is, 80° 24' upon the whole.

⁶⁵ Aristotle seems the author of this supposition, as well as of most other things that are extraordinary in the knowledge of the ancients. See Bochart, Phaleg. 169.

Συνέστηκε τὸ πρὸς τοῖς Ἰερουζαλὴμ ἑκάστω τῶν πρὸς τῶν Ἰνδῶν.

"The parts about the Pillars of Hercules join to those about India." This is a nearer approach still; but both suppositions arise from the contemplation of the earth as a sphere.—Aristotle has also preferred the opinion of the Pythagoreans, who made the Sun the centre of our system, with the Earth and the other planets revolving round it, which is the hypothesis adopted by Copernicus and established by Newton. Strabo likewise, who left the

phenomena of the heavens, and the form of the earth, to the mathematicians, still thought the earth a sphere, and describes our system agreeable to that which was afterwards adopted by Ptolemy; but he adds the idea of gravitation in a most singular manner: Σφαιροειδέης μὲν ὁ Κόσμος καὶ ὁ Ὀυρανός. Ἡ ΠΟΙΗΡ ᾧ ἐπὶ τὸ μέσον τῶν βαρῶν ὁ δ' Ὀυρανὸς περιφέρειται πρὸς τὴν ἀπὸ τῆς καὶ πρὸς τὴν ἀξὸς, ἀπ' ἀποκατῆς ἐπὶ δίσκου. Lib. ii. 110.—"The earth and the heaven

are both spherical; but the tendency is to the centre of gravity. The heaven is carried round itself, and round its axis from east to west."—I barely suggest the extent of ancient knowledge on these questions; those who wish to gratify their curiosity may consult Stobæus, tom. ii. c. 25. ed. Heeren, Götting. 1792, 1794; and Diogenes Laertius in Anaximander, Pythagoras, and Zenon, lib. vii. sect. 155.

the Atlantic Ocean, he calculated upon sixty degrees less than the real distance from Spain to India²⁶—a space equal to three-fourths of the Pacific Ocean; and when his course to India was stopped by the intervention of America, however his companions had been driven to despair by the length of the voyage, Columbus certainly met with land before he expected it, or at least before any estimate of his longitude could authorize the expectation.

The prevalent opinion, in the middle centuries, of a passage from Spain to India, is preserved in Roger Bacon; and his opinion is more worthy of regard, because his system is nearest²⁷ to the actual prosecution of the attempt. He then informs us, that according to Aristotle there was but a small space of sea between the western coast of Spain and the eastern coast of India; and that Seneca mentions that this sea may be passed in a few days, with a favourable wind. Aristotle²⁸, he adds, had his knowledge of the East from Alexander; and Seneca, his knowledge of the South from Nero, who sent his centurions into Ethiopia. He might also have introduced the celebrated prophecy of Seneca the poet:

Veniens annis secula seris,
Quibus oceanus vincula rerum
Laxet, et ingens pateat tellus,
Tethyque novos detegat orbis,
Nec sit terris ultima Thule.

Medea, l. 375.

A time will come, in ages now remote,
When the vast barrier by the ocean form'd
May yield a passage; when new continents,
And other worlds, beyond the sea's expanse,
May be explor'd; when Thule's distant shores
May not be deem'd the last abode of man.

²⁶ India, in this sense, means the first land he would meet with coming from the west, which would in reality have been China.

²⁷ Rogeri Bacon opus majus, p. 183. He cites Aristotle, de Cælo et Mundo; and Seneca, in his fifth book, Nat. Quæst.

²⁸ Bacon died in 1294.

The Nuremberg Globe, as it is called, now published in Pigafetta's Voyage, favours the same opinion; in which the farthest isle to the west is named Antille, the existence of which was dubious, and yet the supposition of it was sufficient to make Columbus think he had reached the Antilles when he discovered the first island in America. This discovery is the more extraordinary, as it was the effect of design, and not accident⁹⁹; when accident would have produced the same effect not ten years later; for it was accident alone that carried Cabral to Brazil in 1500; and the arrival at Brazil would as infallibly have been prosecuted to the exploration of the whole continent, as the achievement of Columbus.

But there is a circumstance still more singular, which attaches to this idea of a passage from Spain to India; for I have in my possession, by favour of Lord Macartney, a copy of the map in the Doge's palace at Venice, drawn up for the elucidation of Marco Polo's travels, or at least certainly constructed before the discovery of America; for in this map there is nothing between the eastern coast of China and the western coast of Spain but sea; and though the longitude is not marked on it, we may form an estimate by comparing this space with others in the same sheet, which are known. Now this space measured by the compasses gives, as nearly as may be, the same distance from China to Spain, as from Ceylon to Malacca; that is, ten degrees, instead of an hundred and fifty; or less than seven hundred miles, instead of upwards of ten thousand. I cannot assert that this is the genuine production of M. Polo¹⁰⁰: it

has

⁹⁹ At least only so far accident, as meeting with America instead of India.

¹⁰⁰ The map, as it now appears, is very ill accommodated to M. Polo's travels, and if

taken from an older one drawn up for that purpose, full of matter of a later date:

For, first, it carries him from China to Bengal by land, whereas he went by sea.

has additions which belong not to his age, and contains much that he did not know; but it is evidently composed and adapted to his travels, and as evidently, more ancient than the discovery of America. We have in it, therefore, a guide to form our opinion of the geographers of that age, and the notions they had conceived of the unknown parts of the world; we have likewise the origin of those conclusions which led Columbus to attempt a westerly passage to India; in effecting this, he was only disappointed by finding a continent in his way, which has caused a revolution in the commerce of the whole world, and which may still cause other revolutions, incalculable in their effect, magnitude, and importance.

But if it is fruitless to look forward to future revolutions; we may at least reverse our attention, and direct it to those great masters in the science, who first taught mankind to measure the surface of the earth by a reference to the phenomena of the heavens—to Eratosthenes—to Hipparchus; and, above all, to Ptolemy, who first established this system on a basis so firm, that as long as there shall be travellers and navigators in the world, it can never be shaken. The science, however advanced, is still only in a state of progression: it is still conducted upon his principles, and is in reality nothing more than a correction of his errors. Those errors were unavoidable, if we consider the difficulty of all first attempts, and the

2. It delineates the Great Wall, which he never mentions.

3. It gives the Molucca Islands in detail.

And, 4. It describes the course of a Venetian ship, east of the Moluccas, in 1550, that is, almost sixty years after the discovery of America; and on that occasion mentions the Straits of Magellan. How this strange incon-

sistency should accord with that part of the map which gives no continent between China and Spain, is totally inexplicable; but that we cannot be mistaken in calling it Spain, is self evident; for we have the river [Guadil] Quivir, Corunna, and the Sierra Nevada, or Snowy Mountains of Andalusia, all in their proper places.

flender means of information in that age, compared with the advantages we possess at the present hour. But even his failures have conduced to the attainment of truth; and whatever reflections we may now cast on an excess of sixty degrees upon the measurement of an hundred and twenty, we must acknowledge, with d'Anville, that this, which was the greatest of his errors, proved eventually¹⁰¹ the efficient cause which led to the greatest discovery of the moderns.

¹⁰¹ La plus grande des erreurs dans la géographie de Ptolémée, a conduit à la plus grand des decouverts. Antiq. de l'Inde, p. 188.

DISSERTATION II.

ON

EZEKIEL, C. XXVII.

THE produce of India or Arabia, mentioned in the Scriptures,
consists of

Cinnamon¹.

Kafia.

Sweet Calamus, Calamus aromaticus? or, Calamus odoratus?

Stactè, or Gum.

O'nycha, or Skekeleth, a black odoriferous shell².

Gálbanum, a gum or resin.

Aloes.

Myrrh.

Frankincense.

Of these, cinnamon and kafia are the only articles which can be attributed specifically to India; and these, with all the others, were brought originally through Arabia into Egypt, Judæa, Phœnicia, and Syria; and from these countries distributed round all the coasts of the Mediterranean. How cinnamon and kafia might have reached Arabia, by crossing no more sea than the breadth of the Persian

¹ See Exodus, xxx. 23. et seq. Psalm xlv.

² Parkhurst in voce.

8. Ezek. xxvii. 19.

Gulph; or how they might have been conveyed to the coast of Africa, the reputed Cinnamon Country of the ancients, has already been sufficiently detailed; it remains now to be shewn, that Tyre possessed the principal share of this trade, from the earliest mention of that city in history, till its destruction by Alexander, and the foundation of Alexandria.

Tyre, in fact, enjoyed this commerce almost exclusively, except during the reign of Solomon, when Hiram found it his interest to unite with that monarch, who was sovereign of Idumæa, in order to secure a port for his fleets in the Red Sea; and the certain means of conveying the imports and exports over-land, from the Red Sea to the Mediterranean. Solomon³ however, though he exacted a tax upon spices, and contributions from the kings and governors of Arabia, and shared in the profits of the trade, still had no fleets on the Mediterranean—no commerce on that sea. This circumstance gave Tyre a monopoly in regard to the whole communication with the Western World; for though Egypt and Syria might receive the same articles from the East, we read of no fleets or commerce from these countries towards the West, in the hands of their respective inhabitants.

The immense profits of this monopoly admit of calculation; if we dare trust to the Hebrew numbers in scripture; but Dr. Kennicott has shewn, that in some instances the amount expressed by these has doubtless been exaggerated; and if the numeration by letters was used in the original transcripts of the sacred writings, it is well known that numerary letters are more subject to error, corruption, or exaggeration, in the manuscripts of all languages, than any other part of their text.*

³ 1 Kings, x. 15.

But let us suppose that the advantages of Hiram were equal to those of Solomon, which is not unreasonable if we consider, that though Solomon enjoyed the profits of the transit, Hiram had the whole emolument of the commerce with the West. Let us then observe that the revenue of Solomon is stated at six hundred and sixty-six talents of gold, which, according to Arbuthnot, amount to three millions six hundred and forty-six thousand three hundred and fifty pounds sterling—an extravagant sum at first sight! but not impossible, if we compare it with the revenues of Egypt, which, after the building of Alexandria, enjoyed the same commerce, and the same monopoly. Even at the present day, when the grand source of Egyptian wealth is obstructed by the discovery of the Cape of Good Hope, Sir Home Popham estimates the revenue at twenty⁴ millions of dollars⁵, equal to between four and five millions English; and when the same revenue, under the Roman government, may be estimated at three millions, which, allowing for the different ratio of specie, may be taken at four times that amount. Let us reflect on these extraordinary sums, before we conclude upon the impossibility of the same commerce, and the same monopoly, producing a revenue of three millions and an half to Solomon, upon the import and transit; and the same sum to Hiram, upon the export. I dare not assert these to be facts, because I think, with Dr. Kennicott, that numerary letters are liable to error; but the revenue of Solomon is twice⁶ stated at the same sum; and the contemplation

⁴ Of all this revenue, notwithstanding the Grand Seigneur styles himself master of Egypt, scarcely a shilling reaches Constantinople.

⁵ Sir Home Popham's concise Statement of Facts, p. 154.

⁶ 1 Kings, x. 14. 2 Chron. ix. 13. The great amount of this revenue is still further increased by the declaration, that the 666 talents of gold were exclusive of the taxes upon the merchants.* Verse 14.

of the revenue of Egypt in the same situation; and under similar circumstances, admits of imputing an immense emolument to this commerce, wherever it became a monopoly.

I have been led into this discussion, upon which every one must form his own judgment, by the specific detail of the Tyrian commerce, in the twenty-seventh chapter of Ezekiel, which, if we consider it only as historical, without any reference to the divine authority of the Prophet, is not only the most early, but the most authentic record extant, relative to the commerce of the ancients; as such, it forms a part of the plan which I have undertaken to execute. In this view I submit it to the reader; and though I pretend not to any power of throwing new light on the subject, and despair of removing those difficulties which surpassed even the learning of a Bochart fully to elucidate, still there will not remain any general obscurity which will prevent us from forming a right judgment upon the whole.

Tyre⁷ was one of those states which had rejoiced at the destruction of Jerusalem, and the captivity of Judah; it became therefore an object of prophecy to declare, that she also was to fall by the hands of the same conqueror, who had subverted the throne of David; but so much more abundant were the means, or so much stouter was the defence of this commercial city, that the army of Nebuchadnezzar lay before it thirteen years; and it was not taken till the fifteenth after the captivity, in the year 573⁸ before Christ; and when taken, it was so exhausted by the siege, or so deserted by the inhabitants, that the conqueror found nothing to reward him for his labours. Prideaux supposes this city to be the Old Tyre on the conti-

⁷ Ezek. xxvi.

⁸ Prideaux, vol. i. p. 72.

nent; and that the inhabitants took refuge on the island, where the new city flourished again with almost the same vigour as its parent, till it was destroyed by Alexander in the year 332 A. C. two hundred and forty-one years after the reduction of it by the Babylonians. But, by the language of Ezekiel, it seems as if the city was upon the island in 573; for (in chapter xxvii. 3.) he says, 'Thou that art at the *entry*' of the sea; and in the following verse, and in c. xxviii. the expression is, "I sit in the *midst* of the seas," or, as it is in the original, "in the *heart* of the seas." The question is not of great importance; but as it rose again after its first reduction, by means of its situation, and the operation of the same causes, those causes ceased after its second fall, by the removal of Oriental commerce to Alexandria; and from that period it gradually declined, till it has become a village under the desolating government of the Turks; where Maundrel informs us, that he saw the prophecy of Ezekiel literally fulfilled¹⁰; for when he was there, the fishermen were "drying their nets upon the rocks."

EZEKIEL, c. XXVII.

IN undertaking the elucidation of this chapter, perspicuity is the only object in view; omitting, therefore, all consideration of the sublimity of prophecy, or the majesty of language, I propose, first, to illustrate the commerce of Tyre in its various branches, by redu-

⁹ *At the entering in of the sea.* Newcombe. An expression which seems to imply, the channel between the island and the main; but all the commentators unite in the same opinion with Prideaux.

¹⁰ Ezek. xxvi. 14. Maundrel, p. 49. He says, it is not even a village, but that the few miserable fishermen who inhabit the place, shelter themselves under the ruins.

cing the Hebrew appellations to the standard of modern geography ; and, secondly, to give a commentary on the whole, deduced from the best writers on the subject. By this method, due regard will be had to the convenience of one class of readers, and the curiosity of another ; and although I pretend not to assign every ancient name, with precision, to its modern representative, still there will remain such a degree of certainty upon the whole as to gratify all that have a pleasure in researches of this nature.

Let us then, in conformity to the opening of the prophecy, consider Tyre as a city of great splendour, magnificently built, and inhabited by merchants whose wealth rivalled the opulence of kings—who traded to the East by the intervention of Arabia, and to the West by means of the Mediterranean ; let us add to this, that in ages prior to the celebrity of Greece and Rome, their fleets had braved the dangers of the ocean, and their people were the only mariners who were not limited within the circle of the Mediterranean ; that they penetrated eastward through the Straits of Death", which were the termination of the Red Sea, and westward beyond the Pillars of Hercules, which were the boundaries of all knowledge to every nation but their own ; that they advanced northward to the British Isles, and southward to the coast of Africa on the Atlantic Ocean". Let us contemplate these enterprizes as completed by the efforts of a single city, which possibly did not possess a territory of twenty miles in circumference ; which sustained a siege of

" The Straits of Bab-el-mandeb, literally the Gate of Death.

" If this should be thought dubious in regard to Tyre, it is undoubted in regard to its colony, Carthage. It is the universal opinion

that the Phœnicians came to Britain ; but in what age, may be a doubt. If they reached Gades only in the times here alluded to, it was passing the Straits of Calpè, which at that period no other nation did.

thirteen years against all the power of Babylon, and another, of eight months, against Alexander, in the full career of his victories; and then judge, whether a commercial spirit debases the nature of man, or unfits it for the exertion of determined valour; or whether any single city, recorded in history, is worthy to be compared with Tyre.

After this general view of the splendour of the city, we may proceed to the particulars specified in the Prophecy. First, therefore, Tyre procured,

Verse

5. From Hermon, and the mountains in its neighbourhood—
Fir for planking.
From Libanus—Cedars, for masts.
6. From Bashan, east of the sea of Galilee—Oaks, for oars.
From Greece, or the Grecian Isles—Ivory, to adorn the
benches or thwarts of the galleys.
7. From Egypt—Linen, ornamented with different colours, for
sails, or flags and entigus.
From Peloponnesus—Blue and purple cloths, for awnings.
8. From Sidon and Aradus—Mariners; but Tyre itself furnished
pilots and commanders.
9. From Gebal, or Biblos, on the coast between Tripolis and
Berýtus—Caulkers.
10. From Persia and Africa—Mercenary troops.
11. From Arádus—The troops that garrisoned Tyre with the
Gammadims.
12. From Tarshish, or by distant voyages towards the West, and
towards the East—Great wealth. Iron, tin, lead, and silver.
Tin implies Britain, or Spain; or at least a voyage beyond
the Straits of Hercules.

Verse

13. From Greece, and from the countries bordering on Pontus—Slaves, and brass ware.
14. From Armenia—Horses, horsemen, and mules.
15. From the Gulph of Persia, and the isles in that gulph—Horns [tusks] of ivory, and ebony. And the export to these isles was the manufacture of Tyre.
16. From Syria—Emeralds, purple, broidered work, fine linen, coral, and agate. The exports to Syria were the manufactures of Tyre, in great quantities.
17. From Judah and Israel—The finest wheat, honey, oil, and balsam.
18. From Damascus—Wine of Chalybon (the country bordering on the modern Aleppo), and wool in the fleece. The exports to Damascus were, costly and various manufactures.
19. From the tribe of Dan¹¹, situated nearest to the Philistines—The produce of Arabia, bright or wrought iron, casia or cinnamon, and the calamus aromaticus. In conducting the transport of these articles, Dan went to and fro, that is, formed or conducted the caravans. By one interpretation they are said to come from Uzal; and Uzal is judged to be Sana, the capital of Yemen, or Arabia Felix.
20. From the Gulph of Persia—Rich cloth, for the decoration of chariots or horsemen.
21. From Arabia Pétrea and Hedjaz—Lambs, and rams, and goats.

¹¹ Dan and Javan may in this passage both be Arabian; but if Dan be a tribe of Israel, its situation is between the Philistines and Joppa; and the people of that tribe would lie

most convenient for the caravans between Petra and Joppa. From Joppa the merchandise would be conveyed to Tyre by sea, as it was at a later period from Rhinocellura.

Verse

22. From Sabæa and Oman—The best of spices from India, gold, and precious stones.
23. From Mesopotamia, from Carrhæ, and Babylonia, the Assyrians brought all sorts of exquisite things, that is fine manufacture, blue cloth and brodered work, or fabricks of various colours, in chests of cedar, bound with cords, containing rich apparel. If these articles are obtained farther from the East, may they not be the fabricks of India, first brought to Assyria by the Gulph of Persia? or caravans from Karmania and the Indus, and then conveyed by the Assyrians in other caravans to Tyre and Syria? In this view the care of package, the chests of cedar, and the cording of the chests, are all correspondent to the nature of such a transport.
25. From Tarshish the ships came that rejoiced in the market of Tyre, they replenished the city, and made it glorious in the midst of the sea; and if we could now satisfy ourselves, with Gosselin, that Tarshish means only the sea in general, these ships might be either those which traded in the Mediterranean, or those which came up the Red Sea to Elath, or Leukè Komè, or any other port of Arabia. I am rather inclined to the latter, because, from the nineteenth to the twenty-fourth verse, every particular relates to the East, and apparently to the produce of India; but if we are to understand, literally, the joy of the ships in the harbour of Tyre, they must be those of the Mediterranean; and this supposition accords best with the Tarshish noticed in the twelfth verse, which by the mention of silver, lead and tin, evidently alludes to Spain, and perhaps to the British Isles.

Such

Such is the historical part of this singular chapter relative to the commerce of Tyre, and illustrative of all ancient commerce whatsoever. It is uttered, however, in an age when the Tyrian fleets no longer sailed from Eziongeber, and when the commodities of the East were received by caravans from Arabia Petræa, Sabæa, and Mesopotamia. From the time that Judah was separated from Israel, there does not appear to have remained vigour sufficient in either, to have maintained such a power over Idumæa, as to have secured a communication with the Elanitic Gulph, for the only attempt to recover this influence was made by the united efforts of both kingdoms, and a treaty between their two kings, Jehosaphat and Ahaziah; but the attempt was superior to their united force, and their ships were broken in Eziongeber. From this period¹⁴, and probably from the termination of Solomon's reign, the Tyrians had no ships on the Red Sea, and supported their communication with it by land only; their track varying as the power of the neighbouring countries fluctuated. This point it is not necessary to insist on, but in an age posterior to the prophecy, and long after the second capture of the city by Alexander, we find that a line of intercourse was open between Rhinocolûra¹⁵ and Petra. It is not, however, the object of the present inquiry to go lower than the second siege; but barely to mention, that even under the Roman Empire a spirit of

¹⁴ 2 Chron. xx. 35. Jehosaphat at first refused a junction with Ahaziah; and, after complying with it, Eliezer declared, that was the reason why the power of God was exerted to defeat the undertaking.

¹⁵ See Strabo (lib. xvi. p. 781.) where he mentions expressly the course of the caravans from Leukè Komè to Petra, and from Petra to Rhinocolûra. Rhinocolûra is the limit be-

tween Egypt and Palestine—the El Arish, so much noticed during the continuance of the French in Egypt. The distance may be compared with that between Elana and Gaza (p. 759.), which is stated at 1260 stadia, or 160 miles. Rhinocolûra is a Greek term, derived from the practice of cutting off the noses of the malefactors sent to garrison this frontier of Egypt.

commerce subsisted still in Phœnicia, and that Berytus and Tyre⁴⁶ were celebrated for their manufactures of silk, glass and salt, however obscured by the splendour of Alexandria, and the establishment of that city as the centre of Oriental commerce under the power of the Romans.

Over such a seat of mercantile power, opulence, and magnificence, at the period when it was ready to be overwhelmed by the invasion of the Babylonians, we may be allowed to breathe the sigh of commiseration, however we resign ourselves to the justice of Providence in its destruction; idolatry, pride, luxury, and intemperance, we learn from the following chapter, were the cause of its punishment, and the instrument commissioned to inflict it, was an oppressor equally idolatrous and proud.

It remains only to subjoin the authorities, on which, known appellations have been substituted for Hebrew terms; on this head, if complete satisfaction is not attainable, we may, at least, hope for some indulgence, and much deference to the names of Bochart, Michaelis, Houbigant, and Archbishop Newcombe, the learned translator of the Prophet; and if I sometimes interpose a suggestion of my own, let it be considered as a conjecture, and subject to the corrections of those who are better qualified as judges of Hebrew literature than myself.

⁴⁶ See Lowth on Isaiah, c. xxiii. last note.

C O M M E N T A R Y

ON

EZEKIEL, c. xxvii.

THE four first verses represent to us the situation of Tyre: it is placed at the entering¹⁷ in of the sea—in the midst of the seas—in the heart of the seas; expressions which seem to intimate that the city was on an island¹⁸, but the general opinion of the commentators places it on the main, and call it Palæ Tyrus, or Old Tyre, in contradiction to the new city, which rose on the island out of the remnant of the inhabitants that fled from the king of Babylon. Its splendour¹⁹ is described as *perfected* in beauty.

V. 5. Senir furnished fir for ship boards (planking); and Lebanon, cedar for masts.

[Sanir, vulgate, septuagint.

Firs, rendered cedars, sept. but firs, vulg. Chald. Newcombe.

Cedars, rendered cypresses, sept.

Cedars, אֲרֵז, arez. Michaelis says, the present inhabitants of Lebanon use אֲרֵז for a tree that answers to the cedar. See Parkhurst in voce אֲרֵז, and in פְּרִי־שֵׁם, firs.]

Senir is part of Hermon (Deut. iii. 9.) “Hermon the Sidonians call Sirion, and the Amorites call it Shenir.” (1 Chron. v. 23.) “Manasseh increased from Bashan to Baal Hermon, and Senir, and Mount Hermon. Newcombe.”—Hermon is a branch of Antili-

¹⁷ Newcombe's Translation.

¹⁸ צִוּר, Tior, Tioor; from whence Συρία and Syria, signifies a rock. May it not be the rock in the sea on which Tyre was built?

Is Palæ-Tyrus on a rock?

¹⁹ See Bochart, Phaleg. 303, where its origin and magnificence are described.

banus, from which the springs of Jordan issue; and thus very properly joined or contrasted with Lebanon. Lebanon signifies white, and snow lies upon Lebanon in summer.

V. 6. Bashan produces oaks, for oars. Bashan is the Batanêa of the Greeks, east of the sea of Galilee, possessed by the half-tribe of Manasseh. "We do not readily see why cedars should be adapted to masts, or oaks used for oars. Cedar, however, is light; but oaks have neither elasticity or levity, but strength only. Houbigant alone renders it alders, for this reason." Abp. Newcombe.

בַּתְּאֲשֻׁרִים Bath-Ashurim, rendered Ashurites in our English Bibles; but in the margin, Chaldee and Parkhurst, *box tree*; as if from תַּאֲשֻׁרַת Thashur, and so בַּתְּאֲשֻׁרִים Bathashurim, in one word. The whole sentence would then stand thus, as Archbp. Newcombe renders it: "Thy benches have they made of ivory, inlaid in box, from the isles of Chittim." The Chaldee seems to refer these to the ornament of houses, &c.; but the vulgate has, expressly, *transstra*, or *the thwart* of galleys; and our English Bible, *hatches* in the margin. Chittim is applied to Cyprus by Josephus—to Macedonia, in the first book of Maccabees; but to Italy and the islands round it, particularly Corsica, by Bochart. Lowth on Isaiah xxiii. considers Chittim as comprehending all the isles and coasts of the Mediterranean; and Jerome, as the islands of the Ionian and Egæan Sea. The latter appear to correspond best with the importation of box wood from Cytôrus in the Euxine, the place most celebrated, poetically, for that production; and the box wood of Pontus and Asia Minor is imported at this day into the Port of London, from Smyrna. The Chaldee renders it Apulia, and the vulgate, Italy.

V. 7. Fine

V. 7. Fine linen of various colours, from Egypt, was used as a sail or rather, as a flag for ensigns. (Vulgate, Chaldec, Newcombe.) Scarlet and purple, from the Isles of Elisha, for a covering or awning to the galleys. Scarlet is rendered by Hyacinthus in the vulgate and Chaldec, that is, the colour of the Amethyst; and the Isles of Elisha are Elis, Hellas, or Peloponnesus. The purple of Laconia was the finest dye next to the Tyrian; and the purple cloth of that province was possibly employed, because it was cheaper than that of Tyre, which was reserved for the use of kings. Elisha is one of the sons of Javan (Gen. x. 4.); and as Javan is the general title for the Greek nation, Elisha may justly be taken for a part. (Bochart, Phaleg. 155.)

V. 8. Zidon and Aráduš furnished mariners, but the pilots or commanders were Tyrians: "Thy wise men, O Tyrus, that were in thee, were thy pilots." Zidon is too well known as the parent of Tyre, to require further notice; but Aráduš is on an island like Tyre, at the mouth of the Eleutherus, to the north of Tripolis, and much celebrated for its commerce by the ancients. In the modern title of Ruad, it preserves a nearer resemblance to the Hebrew Aruad, than to the Greek Aráduš. Bochart (Phaleg. 305.) gives a large account of this place from Strabo, lib. xii. 753. consisting of many interesting particulars.

V. 9. The ancient inhabitants of Gebál were caulkers in the harbour of Tyre: they were mariners likewise, bringing merchandize to that city (Chaldec), or sailing in the Tyrian ships to the westward of the West; *ἐπὶ δυσμαῖς δυσμῶν* (in occidentem occidentis, septuag.); to the extremity of the West. Perhaps we find a rudiment of this reading in the Hebrew; for Archbp. Newcombe ob-

erves, that five manuscripts read לַעֲרֹב layarobh, the *evening*, or *west*, which the sept. followed, probably instead of לַעֲבָרַי layabhar, *beyond*. If this could be admitted, the extremity of the West would at least be Spain, and might be Britain. Gebal, according to Bochart, is Biblos; and Gebail is the name of that place at this day, according to the position of d'Anville in his Map of Phœnicia. Laodicææ propinqua sunt oppidula Posidium, Heraclium, *Gabala* deinde Aradiorum maritima regio. (Bochart, 305. from Strabo, lib. xii. 753.)

V. 10. Persia, Lud and Phut, furnished soldiers for the armies of Tyre.

V. 11. The Aradians and Gammadim formed the garrison of the city.

Persia and Aráduš are self-evident. Lud and Phut are rendered Lydians, and Libyans or Africans. (Vulg. sept. and Chaldee.) But Bochart and Michaelis think Lud an Egyptian colony, from Gen. x. 13. where Ludim is the son of Misraim; and Misraim, the son of Ham, is Egypt. Bochart, however, considers Lud as both Lydia and Africa; but joined with Phut, as it is in this passage, it is more applicable to the latter, for Phut is the brother of Misraim. (Phaleg. 294.)

In this circumstance we find, therefore, that Tyre, like its colony Carthage, employed mercenary troops while the natives were wholly addicted to commerce. Gammadim is rendered Cappadocians. (Chaldee.) Medes. (sept.) Pigmees. (vulgat.) (from גַּמַּל Gamal, sesquipedales,) and Phœnicians by Newcombe, but he adds Gamarim or Gomerim is in 8 MSS. and Gomer according to Bochart is Phrygia; (p. 172.) the true meaning seems irrecoverable. Still we may

may see that the Persian and African²⁰ mercenaries were for foreign service; and the Aradians as joined in the same commercial interest were entrusted with the defence of the city.

V. 12. Tarshish was a merchant in the multitude of all kind of riches, and traded in silver, iron, tin and lead; the mention of tin naturally suggests the idea of Britain, and that the Tyrians did come to Britain, is asserted by the general testimony of the ancients; but what Tarshish is, remains to be determined after all that has been written by every author that has touched upon the subject. Bochart has no doubt of its being Tartessus²¹ in Spain, near the Straits of Gibraltar, and the articles of silver and lead might doubtless be procured in that country; but whether tin could be collected there as a general cargo is highly dubious; for though Diodorus mentions that tin was found in Spain, the bulk of that metal was only obtainable in Britain; and as it is universally confessed that the Tyrians visited Britain, they might rather have gone thither to purchase it at first hand, than buy it in Spain, where it must have been enhanced by the expence of importation, and the profit of intermediate merchants. Be this however as it may, it is evident by the articles mentioned, that this was a western voyage, and so far whether to Spain or Britain is immaterial, for the great difficulty is, that Tarshish in scripture as clearly applies to an eastern voyage down the Red Sea, as to a western one towards Spain; this appears in the

²⁰ The modern Carthage, as the French call England, is said to be raising at this time a body of Africans for service in the West Indies. The omen is not auspicious, and the design is probably abandoned.

²¹ Lamy objects to this very justly, that Tarshish is mentioned as a precious stone by

Moses, before Tartessus could be in exile. He thinks Tarshish signifies gold, or a stone the colour of gold, the chrysolite or topaz; and that the voyage of Tarshish had a reference to this, as gold and precious stones were the produce of it. See *Introd. à l'Ecriture*, cap. iv. p. 425.

voyage mentioned in the first of Kings (x. 21.) "Solomon had at sea a navy of Tarshish with the navy of Iffram." This was in the Red Sea, and brought a very different cargo—gold, silver, ivory, apes and peacocks, (2 Chron. ix. 21.) and (again xx. 36.) Jehoshaphat joined with Ahaziah to make ships to go to Tarshish, and they made ships in Eziongeber; so likewise, (1 Kings, xxii. 48.) Jehoshaphat made ships of Tarshish to go to Ophir for gold; and as the whole of this, by the mention of Eziongeber, directs us east to the Red Sea; so does the flight of Jonah as evidently direct us to a voyage west, on the Mediterranean, for the Prophet takes shipping at Joppa in order to flee to Tarshish.

For the purpose of reconciling these two opposite ideas, M. Gosselin supposes, that Tarshish means the sea in general, and he likewise supposes two voyages eastward, one to Ophir in Hadramaut, and another to Tarshish, which he states as no distinct place; but that the expression intimates a coasting voyage down the African side of the Red Sea, in which they touched at several different ports, and were delayed by the change of the monsoon. The former part of this hypothesis, that Tarshish signifies the sea in general, I wish to adopt; and there is little to contradict this opinion, except the verse itself now under consideration; but in regard to two eastern voyages, one to Ophir, and another down the western side of the Red Sea at large, I have great doubts; I shall, therefore, first collect the suffrages of the interpreters, and then compare the principal texts of scripture concerned; after this, if the difficulty is

"1 Kings, xxii. 48. "Jehoshaphat made ships of Tarshish to go to Ophir for gold." Here the ships of Tarshish are those that go to Ophir; and this concludes against the two voyages of Gosselin, one to Ophir and one to Tarshish.

still incapable of solution, no blame will attach to a failure which is common to so many writers of erudition and discernment.

Tarshish is rendered Carthage in the vulgate; but the objection to this, is, that though tin and lead might be purchased in Carthage, as platina and tutaneg may be obtained in London, yet this is not enough; the whole chapter specifies the distinct produce of the several countries, and not the places where the produce might accidentally be found.

The septuagint render it Chalcedon²³, which is a city on the Bosphorus; but this seems to have arisen from a reference to the first sense of Tarshish, which is a precious stone, (Parkhurst says the topaz) but, however, it may be doubtful whether a Chalcedony (which is an agate) or whether a topaz is meant by the septuagint. The rendering of Tarshish by Chalcedon is evidently an allusion to the name of a precious stone.

The Chaldee Paraphrase says expressly מִן יָמָא Min yama; *de mari* adducebant mercimonia, which is in conformity with Gosselin's opinion.

The English Bible and Newcombe's translation preserve the Tarshish of the original.

Let us next observe the usage of this term in scripture. It occurs first in Gen. x. 4. where the sons of Javan are Elishah, Tarshish, Kittim and Dodanim. Now Javan is the general name for Iōnes²⁴ or Greeks, and his descendants ought to be the division of that nation, as the sons of Misraim, (Gen. x. 13.) are the distinctions of the tribes of Africa. In conformity to this, Elishah has been rendered Elis, Hellas, or Peloponnesus; Kittim the Greek Isles, or per-

²³ Χαλκεδὼν and Καρχηδὼν are easily interchanged.

²⁴ Daniel, viii. 21. מֶלֶךְ יָוָן Melek Javan, the King of Grecia, id. x. 20. xi. 2.

haps Macedonia; and Dodonim Dodona, or the western side of Greece towards the Adriatic. What then would be Tarshish? Bochart and others are not content with this; he supposes Kittim to be Italy, and Rodanim² for Dodanim, to be Gaul about the Rhodanus or Rhone, and Tarshith to be Spain; that is Tartessus. Parkhurst likewise admits Tartessus, and Michaelis imagines, that the fleet fitted out at Eziongeber, circumnavigated the continent of Africa to reach Tartessus by the Indian and Atlantic Ocean. This solution he assumes, because the voyage was of three years continuance, and because Solomon had no ports on the Mediterranean. The latter reason cannot be admitted while Solomon and Hiram had a joint concern; for during that union, the fleet might have sailed from Tyre. But the three years allowed for the voyage are not sufficient, if calculated by the voyage of the Phœnicians sent by Neco, which is probably the ground of Michaelis's estimate; for they were three years in reaching the Mediterranean; and consequently the voyage round Africa to Tartessus, and back again, would require not three, but six years for its completion.

Upon a view of these difficulties, if we should return to Javan, and wish to establish all his family in Greece, we ought to find a situation for Tarshish in that country; and if this cannot be done, it must be confessed that the position of Tarshish cannot be discovered by the text of Genesis the tenth. Omitting this, therefore, for the present, we may proceed to other passages connected with the subject of inquiry.

It has been proved already (from 1 Kings, xxii. 48.) that the ships of Tarshish built by Jehoshaphat at Eziongeber, went east to Ophir,

² Rodanim is not merely an assumption of the margin of our English Bible. The dalech Bochart's; it is read in several MSS. and in and resh are easily interchanged: 7 for 7.

and (from Jonah, i. 3. iv. 2.) that Jonah, by embarking at Joppa, fled westward on the Mediterranean. Now the sea is common to both these voyages, but no one specific place, country, or city, can be common to both; and upon a careful examination of all the passages adduced by Gosselin, and all that are to be found in the concordance, there is not one which may not be rendered justly by *the sea*, as Gosselin has asserted. The Vulgate and the Chaldee vary in different places, but the prevailing construction is *mare* or *maria*; and the Vulgate (on the 1 Kings, x. 2. xxii. 49.) has ships of Africa, which might give rise to the opinion of Montesquieu and Bruce, that Ophir was at Sofala; but Africa is itself a suspected term in Hebrew; for it is Latin, not used by the Hebrews, whose phrase was Lubim, and little by the Greeks²¹, who adopted Libya from the same origin; but in the Chaldee it is in so many letters אפריקה Africa (1 Kings, xxii. 49), and this term is doubtless, in comparison, modern. The other texts are, if any one should wish to examine them. (2 Chron. ix. 21. xx. 36, 37. Psalm xlviii. 7. Thou breakest the ships of the sea, lxxii. 10. the kings of Tharsis; kings beyond sea in Sabêa. If. ii. 16. xxiii. 1. the burden of Tyre, how ye ships of Tarshish, naves maris. Vulg. Chald. *ibid.* ver. 6. Pass ye over to Tarshish, transite maria. Vulg. Chald. and at ver. 10. Tyre is called daughter of Tarshish בת תרשיש Bath Tarshish, daughter or virgin of the sea, Filia maris. Vulg. And what appellation can be more proper, for such a city which owed its existence to the sea? If. ix. 9. ships of Tarshish, naves maris. Vulg. Chald. lxvi. 19. I will send them that escape to Tarshish, ad gentes in mare. Vulg. ad provincias maritimas. Chald.)

²¹ Perhaps never till after their connection with Rome.

Upon the evidence of all these passages, there is no hesitation in subscribing to the opinion of Gosselin, but his double voyage down the Red Sea is by no means equally apparent. There is likewise great reason to adopt Parkhurst's idea, that they were large and strong ships, fit for distant voyages; or if the reading of the septuagint (Ez. xxvii. 9.) could be admitted, we might add, that they were stout enough to pass (*ἐπὶ δυσμαχῆς δυσμῶν*²⁶) to the extremities of the west, to the Atlantic and Britain; or to the east, through (Babel Mandeb) the Straits of Death, and so to the southern coast of Arabia. This account we have from scripture, and it is clear; but the voyage to Britain, though generally admitted, is far more problematical, for the evidence of Strabo²⁷ goes only to prove, that a Phœnician vessel was run ashore in order to deceive the Romans, which must relate to a much later period; and the testimony of Diodorus Siculus²⁸ intimates, that even in his time, tin was brought from Britain, through Gaul, by a land carriage of thirty days, to the mouth of the Rhone, or perhaps to Marseilles. Still that the Tyrians did obtain tin is manifest from Ezekiel, and that they passed the Straits of Calpé, and reached Gades at least, is certain, for the temple of Hercules in that island was the Melcartha²⁹ of Tyre, whom, from his attributes, the Greeks styled the Tyrian Hercules.

V. 13. Javan Tubal and Meshch dealt in slaves and vessels of brass, intimating probably that they *all* dealt in slaves, for slaves came out of the Euxine and the countries round it in all ages into Greece, and still

²⁶ That we may not mislead, it is necessary to observe, that this term is not used in the verse under contemplation, but in v. 9. I wish to find any where an extreme western voyage, to Gades or to Britain, which I must confess

is not perfectly clear.

²⁷ Strabo, lib. iii. p. 175.

²⁸ Lib. v. 347. West.

²⁹ Melcartha is Melek Cartha, the King of the City. Bochart.

come to Constantinople. The Greeks of course carried these or others which they obtained by piracy to Tyre as well as other maritime cities. Brass vessels will apply more particularly to Tubal and Meshech, which are usually rendered Tibareni and Moschi, who, with the Chalybes and other inhabitants of the north-east angle of Asia Minor, have been in all ages, and still are the manufacturers of steel, iron, and brass, for the supply of Armenia, Persia, Greece, and all the eastern countries on the Mediterranean. (See Busching and Michaelis cited by Newcombe on this passage, and Bochart.) Tubal and Meshech are generally mentioned together in scripture, and Tubaleni is as naturally Tybareni, as Meshech, which the Chaldee reads Mosock, is Moschi, while Javan, Tubal and Meshech are all sons of Japhet. (Gen. x. 2.)

V. 14. Togarmah traded in horses, horsemen and mules, which Bochart supposes to be Cappadocia, (p. 175, Phaleg.) but Michaelis with much greater probability, Armenia, for Armenia and Media were the countries where the kings of Persia bred horses for the service of themselves and their armies, and in later times Armenia paid its tribute from this source. See Newcombe, who cites the Greek Scholiast on Ezekiel, and Ez. xxxviii. 6. The Chaldee renders it unaccountably by Germania. The objection to assuming Armenia for Togarmah, is, that Armenia is in every other passage represented by Ararat. (See particularly 2 Kings, xix. 37. and Isaiah, xxxvii. 38. and Jeremiah, li. 27.) I have not had an opportunity of consulting Michaelis Spicileg. Geographicum, and can judge of it only as it is cited in Newcombe.

Ver. 15. Dedan is mentioned in conjunction with the merchants of many isles; they brought horns (tusks) of ivory and ebony.

Dedan is strangely rendered by the septuagint Rhodians. They must, therefore, have read a resh for a dalesh; but Dedan³⁰ is doubtless on the southern coast of Arabia, for he is mentioned (Gen. x. 7.) with Seba, Havilah, Sheba and Raamah, all nations of Arabia and on the south. There is still a Dadena on the coast of Oman, opposite to Cape Jasque; and a Rhegma, within the Gulph of Persia, not far from Moçandon, is found in Ptolemy, corresponding with Raamah or Rahmah, in the opinion of Patrick. Without, however, insisting on these resemblances, we may be certain of the country from the other names with which it is united, and its produce; for ivory and ebony are furnished only by India and Africa, and the province of Oman deals with both. If we read *borns* of ivory, with our English Bible, they are the *tusks* resembling-horns. If horns and ivory, with archbishop Newcombe, the horns from the isles may be tortoise-shell, peculiar to the isles of India; and ebony, if Virgil be good authority, is found in India and nowhere else.

Sola India nigrum,

Fert Ebum. Georg. ii. 117. Newcombe.

It is evident, therefore, that we are here first introduced to Oriental commerce, and from this verse to the 25th, every article specified is from the east, and every place mentioned, is to the east of Tyre, or connected with the trade eastward. To those who have a curiosity on this subject, this is the most remarkable singularity of the chapter, and the establishment of the fact will be self-evident. The Chaldee renders horns by *cornibus caprearum*, and adds *pavones*, from the general ac-

³⁰ I follow Bochart and Michaëlis in placing Dedan on the eastern coast of Arabia, and I think they are right; but Dedan is mentioned with Tema, Jer. xxv. 23. and with Esau, xlix. 8. Tema is by Niebuhr supposed to be

the Telama, or coast of Arabia, on the Red Sea; and Esau is in Hedjaz. This makes a difficulty; but the countries mentioned with Dedan, and the articles imported, indicate the south-east angle of Arabia.

counts of the voyage to Ophir, but neither of these additions is justified by the text.

V. 16. Syria was the purchaser of the manufactures of Tyre; and the Syrians brought in return, emeralds, purple, embroidered work, fine linen, coral, and agate. Syria, in the original, is Aram or Aramêa; and Aram, in scripture, is sometimes Mesopotamia, sometimes Damascus¹¹, and likewise the country about Libanus, and the Orontes. Emeralds, fine linen¹², coral, and agate, are doubtless from the East; but as to the appropriation of these names specifically to different precious stones, it is quite indeterminate. Fine linen, and embroidered or variegated work, may be the cottons or muslins from India, but is too general a term to be depended on. Still, upon the whole, we may imagine, that all these are articles brought by land from the Gulph of Persia, through Mesopotamia or Damascus, in exchange for the manufactures of Tyre. Purple and fine linen are frequently united in the language of Scripture, and the usual interpretation is, fine linen of a purple colour; of this, though Michaelis says purple would not be brought to Tyre, but exported from it, there might be an importation (see Newcombe in loco) from India through this channel.

V. 17. Judah and Israel brought to Tyre wheat of minnith¹³, or fine wheat (Vulg. Sept. Chaldee), and pannag, perhaps panicum, millet or doura, with honey, oil, and balsam. There is little fluctuation in the versions; and though pannag may be dubious, the other articles are the natural produce of Judah and Israel; and balsam is

¹¹ Aram-Damafek is Damascus, the proper capital of Syria.

¹² בִּצְיָץ Butz, Byssus, every where rendered fine linen, is supposed every where to

be cotton.

¹³ Minnith occurs in no other passage. Minni is used for Armenia, but can have no application here.

from Jericho, where the plant which produces it grew in Mandrel's time.

V. 18. Damascus received the richest manufactures of Tyre, in exchange for wine of Helbon, and white wool, that is, wool in the fleece or unwrought. If Tyre bought wool in the fleece, and manufactured it, it is the same policy as Flanders adopted formerly in regard to the wool of England. The wine of Helbon is the Chalybon of the Greeks; the kings of Persia drank no other. (Newcombe from Strabo.) Syrian wine is still celebrated, and Laodicæan wine is an article of commerce in the Periplus. The Eastern name of Aleppo is still Haleb; and Haleb, Halcbon, or Chalybon, are only varied by different aspirates or Greek terminations. The river Chalus, which Xenophon mentions in the expedition of the ten thousand²⁴, must be near the present Aleppo, or the very stream which at this day supplies that city with water. Damascus lies upon the route from Aleppo to Tyre; and to Aleppo the distance is about double that to Tyre.

V. 19. Dan and Javan, *going to and fro*, brought iron²⁵, and cassia, and calamus: the two last articles are evidently Oriental, and Indian iron is likewise a part of the Eastern invoice in the Periplus. We are therefore to look for this Javan, not in Greece, as before, but in Arabia, and to point out the distinction between the two Javans. The adjunct of the name, rendered in our English Bible *going to and fro*²⁶, is in the original Me-Uzal; and Uzal is explained by Gen. x. 27. where Uzal is the son of Joktan, joined with Hazar-

²⁴ See Cyri Exp. p. 234. Leuncl. See also Ruffin's Aleppo, where it seems the river Kosek, chap. i.; and d'Anville's Map of the

Tigris and Euphrates.

²⁵ Bright or wrought iron, in the original.

²⁶ From ~~הזל~~ azal, to go.

maveth (Hadramaut), Sheba, Ophir, and Havilah; all which we know to be in Arabia, and consequently Javan³⁷, Me-Uzal, is so likewise. It is unwillingly that I drop the sense of *going to and fro*, because it expresses the practice of a caravan; but the retaining Uzal as a proper name, is justified by the Vulgate³⁸ and Sept. and approved by Newcombe, and Michaelis, who adds, from Golius, Azal nomen Sanaæ quæ metropolis Arabiæ felicis. Michaelis also supposes Dan to be Vadan, and a city of Arabia; but of Vadan³⁹ there are no traces in Gen. x.; if it is Dan, one of the tribes of Israel, his situation is between the Philistines and Joppa, placed very commodiously for receiving the caravans from Arabia in that age, which came to Rhinocolûra in a later; and equally convenient for embarking at Joppa the commodities brought by the caravans to be conveyed to Tyre. Be this as it may, the traffic is undoubtedly Arabian, and from the southern⁴⁰ coast; for (קידה) khiddah, is cassia, the cassia lignea of the ancients; from (קד) khad, to cut or divide lengthways, in contradistinction to kasia fistula⁴¹, the pipe cinnamon, which we now prefer. The (קנה) khanch likewise, or reed, if it be the calamus aromaticus, is of Indian growth. There can be no doubt therefore remaining, but that this verse fully establishes the intercourse of Tyre with India, through the intervention of Arabia; and no doubt that the Arabians went to India, or ships of India came to Arabia. This circumstance consequently must have taken place previous to the siege of Tyre, at latest⁴² 560 years before Christ;

³⁷ See Parkhurst in קד. Khadh.

³⁸ Mozel, vulg. Moozil, sept. Turmatim, Chald.

³⁹ קדן may be Vadan, or and Dan.

⁴⁰ Hazarmaveth, Havilar, Ophir, and Sheba, are all on the southern coast. Havilah is sup-

posed to be Chaulonitis in Oman; so David is Daoud, in Arabic.

⁴¹ See Parkhurst in voce, and the catalogue in the present work, under kasia.

⁴² Coeval with Pisistratus, in Greece.

and this passage is therefore the most ancient record of the trade between India and Arabia, which can be called HISTORICAL; for though spices are mentioned frequently, that term is not decisive, as all the gums and odours of Arabia are comprehended under that name. Cinnamon, kafia, and calamus, alone prove an Indian origin; and notwithstanding these are noticed by Moses, David, and Solomon, the conveyance of them by caravans from the southern coast of Arabia is no where specified, till we arrive at this passage in Ezekiel.

V. 20. Dedan imported precious clothes for chariots. Dedan is introduced before (v. 15.): it may be the same country again, that is, Oman. But in this verse there is nothing to express whether these clothes are a manufacture, or an import from countries farther to the east.

V. 21. Arabia, and the princes of Kedar, purchased the fabrics of Tyre, and brought in return, lambs, rams, and goats. By the princes of Kedar may be understood, the sheiks of the tribes of the Sahara or Desert: they lived in tents; and these tents were black, made of felt, perhaps, as they still are. Kedar signifies black, and Bochart concludes from this, that they were Arabs burnt by the sun; but that it refers to the tents is evident from Canticles, i. 5. I am *black*, but comely⁴³ as the tents of Kedar. These, therefore, are the Arabs of Hedjaz; they have no fixed habitation, but wander throughout the Sahara⁴⁴; and their only wealth, besides what they obtain by robbery, consists in their flocks and herds. The produce of these they brought to exchange for the manufactures of Tyre.

⁴³ See the Song of Maifuna, wife of Moawiah, in Abulfeda, Reiske, p. 116. which presents a true picture of the manners of the

Arabs of the Desert.

⁴⁴ Whence afterwards they were called Sacerani.

V. 22. The merchants of Sheba and Raamah brought all kinds of the finest odours, precious stones and gold. Between Sheba (with *shin*) and Seba (with *famech*) there appears a distinction; for Sheba is a descendant of Shem, and Seba of Ham, Gen. x. Seba is, by some, taken exclusively for Sabæa, but both are in Arabia. The mistake, however, of one for the other, is natural, as there is a Sheba⁴⁵ also, great grandson of Ham. Mentioned, however, as Sheba is in this passage with Raamah, and connected as it is with Dedan (v. 20.), we may conclude that the great grandson of Ham is meant, the son of Raamah, who is son of Cush. Cush, likewise, is much more properly attributed to Arabia than Ethiopia, though frequently rendered by Ethiopia in our English Bible. If this may be esteemed a clue to guide us, we may place this Sheba, with Raamah⁴⁶ (Rhegma) and Dedan (Daden), towards the south-east angle of Arabia, that is, in Oman; where spices, drugs, odours, gold, and precious stones, might readily be conceived, partly to be the native produce of the province, and partly imported from India. Of precious stones there can be little doubt; and that gold should be brought from India, is a circumstance in conformity with the Periplus; for if the merchant carried silver to the Indian market, he had a considerable profit by exchanging it for gold.

V. 23, 24. Haran, Canneh, Eden, with the merchants of Sheba, Ashur, and Chilmad, traded in blue clothes, broided work, or work of various colours—in chests of rich apparel, made with cedar and bound with cords.

⁴⁵ Compare Gen. x. 7. with the same chap. 28.

⁴⁶ Raamah is Rema in the Vulgate, and

Ragma in the Sept.; both advancing a step towards the Rhegma of Ptolemy, occasioned by the γ gain in רַמְמָה Rhamma.

That this expresses generally the trade with Mesopotamia and Assyria there can be little question; but Sheba mentioned again with these places, causes great obscurity. It may be too much to say, that these articles came up the Gulph of Persia, from Sheba or Oman to Babylonia and Mesopotamia, and thence by caravans to Tyre; but the chests of cedar bound with cords do certainly seem to imply some great caution adopted for the preservation of the clothes, which appear very precious, and highly ornamented. This caution seems more necessary for a conveyance over land, not only to prevent injury to the goods, but robbery likewise.

But Michaelis, as I learn from Archbp. Newcombe, goes counter to this whole supposition. With him, Haran is Haran-al-carin in Arabia; Canneh is the Kanè of Hadramaut; Eden is Aden in Sabèa, or Yemen; Sheba is a different place from Sheba in the verse preceding, and Chilmad is left undetermined.

But to me it appears, that in the preceding verses we have gone round the whole coast of Arabia, from west to east—from Hedjaz to Sabèa, Hadramaut, and Oman; and that we are now brought up the Gulph of Persia to the Euphrates and Tigris—to Babylonia, Mesopotamia, and Assyria; making thus a circle of that vast peninsula, and comprehending all the countries connected with Tyre to the east. Against such authority as Michaelis, I must not stand on my defence with my own forces, but call in auxiliaries, who have as high a claim to consideration as Michaelis himself.

The single name of Afshur, enumerated with the other places in this passage, is sufficient to convince us that they are not in Arabia, but Assyria; for Afshur is the son of Shem (Gen. x. 21.), joined

with Elam⁴⁷, Elymais, or Persia, and Aram, Aramæa, or Syria; and the invariable usage of Afshur for Assyria, does not admit of altering its application in this single passage. Haran and Eden are mentioned in conjunction (2 Kings, xix. 12. Bochart), and Haran, written Hharan or Charan in the original, is Charræ near Edeffa, celebrated for the defeat of Crassus in later times, and more anciently for the residence of Abraham (Gen. xi. 31.), when he left Ur of the Chaldeans, near the Tigris, in his progress towards the land of Canaan. (Bochart, d'Anville.) Eden, Adana, and Aden, is a name found indeed in Arabia and in other places, and its signification might readily be the cause of this; for the Garden of Eden is the Garden of Delight, and various places, possessed of a desirable situation, might assume this distinction; but joined with Haran, as it is here, and in the second book of Kings, it must be in Assyria, and no where else; for in the latter passage it is put into the mouth of Rabshekah, and Rabshekah was an Assyrian.

Canneh likewise is read Calneh by Grotius, Houbigant, and Bochart, (mentioned Gen. x. 10. Isaiah, x. 9. and Amos, vi. 2.) Michaelis himself acknowledges that the Chaldee interprets it of Nisibis in Mesopotamia, as others assume it for Ctesiphon. But without assigning it to a particular city, it is sufficient for the present purpose that it is in Assyria. The proof of this is express (Gen. x. 10.)—“Calneh, in the land of Shinar: out of that land went forth “Afshur, and built Nineveh.” If therefore Canneh be Calneh,

⁴⁷ Elymais is the original seat of the Persians in the mountains of Loristan, before they extended themselves in Persis and Susiana. Xenophon describes them in the *Cyropædia*, as originally a nation of mountaineers. Ely-

mais, or Elam, extended its name with their conquests. The same mountains were possessed by the Colchæi in later times, and the Persians are sometimes called Kussii or Kissii by the Greeks.

this is conclusive; if it be not, this is the single passage of scripture in which it is mentioned, and it must be determined by the context. In this predicament stands Chilmad likewise: it is noticed here only; and if we have ascertained Afshur, Charan, and Eden⁴, to be in Mesopotamia, in that country must both Canech and Chilmad be placed.

In regard to Sheba there still remains a doubt; for though there are three Shebas or Sebas in Genesis, x. we cannot assign any one of them specifically to Assyria. I have offered a conjecture, that this Sheba may be in Arabia, on the Gulph of Persia, but it is mere conjecture; and if it be not admitted, this also, though now undiscoverable, must be assigned to Assyria with the others. But I apprehend that Sheba and Seba are in every other passage of the Scriptures applied to Arabia.

THIS Commentary, tedious as it must necessarily appear in some respects, will, I trust, be acceptable to every reader of curiosity. I have little merit but that of collecting, under one point of view, what is to be searched for in the detached passages of other authors. This might have been done by any one that had equal industry, or an equal desire of elucidating the commerce of the ancients; but it has not been done in a satisfactory manner by any one, as far as I am acquainted with the subject.

⁴ Eden denotes a particular country or district. Gen. ii. 8. "God planted a garden eastward in Eden." And Eden, by the mention of Tigris and Euphrates, v. 14. is universally assigned to Mesopotamia. See Bochart, *Dissertat. de Paradiso terrestri*, p. 9. & Hardouin, *Plin.* tom. i.

In the prosecution of this inquiry, I have felt much interest in tracing the channels which commerce opened for itself, after the Tyrians had no longer access to the Red Sea, or the means of making the voyage to Ophir in their own ships; and I think it appears evident that they had a communication by land with all the three sides of Arabia, as well as with the countries farther east, through the intervention of Arabia, of Assyria, and Babylonia. That the commodities of the East will bear a long and expensive land-carriage, we may be assured by the caravans which traversed the whole continent of Asia, from China to the Mediterranean, in former ages; and those which pass between the same empire and Russia at the present day. That the Tyrians should be employed in the same concern, is natural, from our knowledge of their commercial spirit, and from the profits of their monopoly in regard to Europe. Whether the knowledge of these gains, or the thirst of conquest, induced Nebuchadnezzar to destroy this city, may be questioned; but I have already shewn that he had improved the navigation of the Tigris, and established a port on the Gulph of Persia. In this there could be no object but a communication with the East; and when the Babylonian empire sunk under the power of Persia, Tyre rose again out of its ruins, because the Persians were neither navigators or merchants, and because the fleets of Tyre were essential to the prosecution of the conquests of the Persians towards the West.

The destruction of Tyre is foretold by Isaiah (xxiii.) and Jeremiah (xxv. 22. xlvii. 4.), as well as by Ezekiel, who employs three chapters upon the subject, and enters far more minutely into particulars. In the twenty-eighth chapter he declares, the pride of this devoted

devoted city, whose sovereign boasted, " I am a God ;" " I fit in " the seat of God, in the midst of the seas ;" " I am God" (v. 9.) ; and whose luxury made every precious stone his covering—the sardius^o, topaz^o, ruby, diamond, beryl, onyx, jasper, sapphire, emerald, and carbuncle, set in gold (v. 13.). The various rendering of these in different translations, will prove indeed the little dependance there may be on our knowledge of the Hebrew terms ; but will still leave an impression, that they are imported from countries farther eastward, whence most of the precious stones still come, and will prove not only the value, but the direction of the commerce. *

With these observations I close the review of this extraordinary prophecy relating to Tyre and its commerce ; and if the Periplus affords us the means of tracing the countries it describes, by the specification of their native produce ; equally appropriate, or more abundantly so, are the articles contained in the enumeration of the Prophet ; the latter part of which coincides most essentially with the detail in the Periplus, and establishes the consistency and veracity of both.

* See Lamy, *Introduci à l'Écriture*, c. iv. p. 425. who has all that can well be said on the subject ; but the Hebrew names of jewels are chiefly derived from verbs expressing radiance, and are therefore indeterminate ; but *adem* is red, and may be the ruby ; *jasphê* has the sound of jasper and *sapphir* is self evident. I wish בַּיָּם , *inabalem*, which Parkhurst derives from *balam*, to strike, could be ascertained for the diamond ; and might we not search the root בָּהַל *hal*, to move briskly, to irradiate, shine, or gladden. Halil, he adds,

denotes the Morning Star, from its vivid splendour.

* *Tarshish* is one of the jewels in the breastplate of the high-priest, which (compared with John, Rev.) Lamy concludes, to be the chrysolite or topaz ; but he adds, that some suppose it the aigue marine, or stone that is the colour of sea-water, and that in this sense *Tarshish* the jewel is applied to *Tarshish* the sea, p. 431. It is rendered chrysolite or topaz in this passage of Ezekiel.

To the public I now commit the result of my inquiries. In return for the labour of many years, the only reward I am anxious to obtain is, the approbation of the learned and ingenuous: if I fail in this object of my ambition, I must console myself with the reflection, that my own happiness has been increased by attention to a favourite pursuit, by the acquisition of knowledge, and by the gratification of a curiosity almost coetaneous with my existence.

DISSERTATION III.

ON THE NAVIGATION AND COMPASS OF THE CHINESE,

BY

THE RIGHT HON. THE EARL OF MACARTNEY.

N. B. At p. 257, this Dissertation is mentioned improperly as No. 1.

IN my Journal of 11th August 1793, I gave some account of the junkas and shipping employed by the Chinese, and expressed my astonishment at their obstinacy in not imitating the ingenuity and dexterity of Europeans, in the built and manœuvre of their vessels, after having had such striking examples before their eyes for these 250 years past: but I must now in a good measure retract my censure upon this point; as, from what I have since observed in the course of my several voyages on the rivers and canals of China, I confess that I believe the yachts, and other craft usually employed upon them for the conveyance of passengers and merchandize, and the Chinese boatmen's manner of conducting and managing them, are perfectly well calculated for the purposes intended, and probably superior to any other that we, in our vanity, might advise them to adopt.

With regard to vessels of a different kind for more distant voyages, to Batavia, Manilla, Japan, or Cochin-china, I am informed that the Chinese of Canton, who have had frequent opportunities of seeing our ships there, are by no means insensible of the advantages they

they possess over their own; and that a principal merchant there, some time since, had ordered a large vessel to be constructed according to an English model; but the Hou-pou, being apprized of it, not only forced him to relinquish his project, but made him pay a considerable fine for his delinquency, in presuming to depart from the ancient established modes of the empire, which, according to his notions, must be wiser and better than those of the barbarous nations, which come from Europe to trade here. It is indeed, as I have before remarked, the prevailing system of the Tartar government, to impress the people with an idea of their own sufficiency, and to undervalue in their eyes, as much as possible, the superior invention of foreign nations; but their vigilance in this respect, and the pains they take for the purpose, evidently betray the conscious fears and jealousy they entertain of their subjects' taste for novelty, and their sagacity in discovering, and wishing to adopt, the various articles of European ingenuity for use, convenience, and luxury, in preference to their own clumsy, old-fashioned contrivances*. The government also probably apprehended danger from our teaching their subjects things of which they are now ignorant, but which they would be willing enough to learn. No precaution, however, can stand before necessity; whatever they want from us they must have, and every day they will want more, and elude all means of prevention in order to procure them. Cotton, opium, watches, and broad cloth, and tin, they cannot do without; and I have little doubt, that in a short time we shall have almost a monopoly of those supplies to them.

* I am assured that several smart young Chinese of Canton are in the habit of wearing breeches and stockings, à l'Angloise, in their own houses, and when they come abroad, cover them over with their usual Chinese accoutrements.

But to return from this digression to the subject of Chinese Navigation.—It is a very singular circumstance, that though the Chinese appear to be so ignorant of that art, and have neither charts of their coasts or seas to direct them, nor forestaff, quadrant, or other instrument for taking the sun's altitude, yet they have for many years past been acquainted with the use of the Mariner's Compass²; they even pretend that it was known to them before the time of Confucius. Be that as it may, the best writers agree that it was not known in Europe till the thirteenth century, nor brought into general use till the latter end of the fifteenth; but whether communicated by Marco Polo on his return from China, or by some other adventurer, remains undecided. The plan of it, according to its division into thirty-two points, seems to indicate it rather an intended European improvement upon something already discovered, than to be an original invention. The Chinese Compass being divided only into twenty-four points, it was easy to add eight more; and yet, even with this improvement, the European Compass in one respect labours under one disadvantage when compared with the Chinese one; for in the latter the calculations are much easier, each point answering to fifteen degrees, without odd minutes.

Whoever it was that originally introduced the Mariner's Compass, as now used, of thirty-two points, could not have been extensively versed in science; for, long before the discovery of the magnetic needle, philosophers of all nations had agreed to divide the circle into 360 equal parts or degrees, a degree into 60 minutes, a minute into 60 seconds, &c. &c. The reason, I presume, of the general

² Ting-nan-ehin, or the South-deciding Needle.

adoption and continuance of those numbers, is the convenience of their being divisible into integral parts by so many different numbers. The points of our mariner's compass, however, happen not to be among these numbers, for 360 divided by 32, give $11\frac{1}{2}$ degrees, so that, except the four cardinal points and their four bisecting points, all the others converted into degrees, will be involved with fractions, a circumstance of great inconvenience, although thought immaterial by seamen, who have tables for every minute of a degree ready calculated to their hands. Now, it is submitted, whether the Chinese, without any pretensions to science, have not fallen upon a more convenient division of the card of their compass, than the Europeans have adopted, with all their pretensions to science. It is quartered by the four cardinal points, in the same manner as ours, and each of these is subdivided into six points, making 24 points in the whole card, so that every point contains 15 degrees, or the fifteenth part of 360.

After all, perhaps a division of the card into 36 points would be found more advantageous than any other, for then every point would be equal to ten degrees; half a point equal to five degrees, &c. &c. and so on.

A P P E N D I X.

The APPENDIX contains:

- I. AN alphabetical Catalogue of the Articles of Commerce mentioned in the Periplús, with an Account of their Nature and Properties, as far as is requisite for the Elucidation of the Journal.
- II. AN Account of the Adulitick Inscription found in Abyfinia by Cosmas Indicopleustes, a Monk of the sixth Century.
- III. AN Inquiry into the corrupt Reading of the Manuscript, in regard to the Word, *Ἐιπευηδιωμμευθεσίας*.
- IV. THE Form of the habitable World as imagined by Pomponius Mela, Cosmas, and Al Edrissi.

N. B. *As these several Particulars are designed for the whole Work when completed; they commence again with page 1, and will be accompanied by some other Disquisitions on the Winds and Monsoons, on the Site of Meroë, and on the Limit of ancient Discovery towards the East, with farther Inquiries, if authentick Materials can be obtained. The Second Part of this Work will contain the Arabian and East Indian Navigation of the Periplús, with the Pages numbered in order from Part the First.*

ARTICLES of COMMERCE mentioned in the PERIPLUS MARIS
ERYTHRÆI assigned to ARRIAN.

A

1. Ἀβόλαι. *Abollæ*.

If this term be Greek, it is remarkable that it should not occur in any Greek Lexicon, and if it is Latin (as apparently it is), it is equally remarkable that a Greek merchant of Alexandria, such as the author probably was, should have introduced a Latin term into his Greek catalogue; but Latin terms crept into purer Greek writers than our author, and commerce perhaps had adopted this, as expressing the actual garment which was neither used by, or formerly known to the Greeks. The Roman *Abollâ* was a military cloke¹, perhaps not unlike our watch cloke. And the adoption of the word is not more strange than the usage of the English in adopting the French *Surtout*, or the French adopting the English *Redingote* (Riding Coat).

¹ The word *Abolla* is not in Du Cange.

² It seems worn as an outer military cloke by officers and men of rank. Ptolemy, son of Juba, king of Mauritania, grandson of M. Antony by Selenè the daughter of Cleopâtra, was killed by Caligula, who was a great grand-

son of Antony, non aliâ de causâ quam quod edente se munus, ingressam spectacula convertisse oculos hominum fulgore purpureæ *abollæ* animadvertit. Suet Calig. c. 35. It was likewise a garb of the Philosophers, sudi facinus majoris *Abollæ*. Juvenal.

2. Ἀελοὶ νόθοι χρωμαίνωσι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmaf. ad Vopiscum.

Ἀελοὶ, according to Salmafius (Plin. Exercit. 1062,) are single cloths, the same as ἀπλόιδες, in opposition to διπλόιδες, or double; but whether this relates to the texture, to the ornaments wrought on them, or the consideration of their being with lining or without, seems difficult to determine. Our weavers call a silk, *shot*, when the warp is of one colour and the woof of another; and the word Ἀελοὶ may be literally rendered *unshot*; but it does not follow that this is an accurate rendering of the term. Homer mentions garments both single and double; and Deborah makes the mother of Sisera say, that her son had perhaps brought home a raiment of needle work, of needle work *on both sides*, which is apparently correspondent to the tunick, which Ulysses describes to Penelopé (Od. lib. T. 230.). If this interpretation, therefore, should be admissible, Ἀελοὶ χρωμαίνωσι may be rendered *plain cloths of one colour*, and νόθοι would express, that they were of an inferior quality. But see the term διπλοίματος, Diog. Laertius in Diogene, p. 350. Horace. *Duplici franno patientia velat*. And the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σὺ μόνω δέδοται καὶ χλαμύδα φορεῖν καὶ ῥάκος. “You are the only Philosopher who can assume with equal propriety the dress of a gentleman (*χλαμύδα*), or the ordinary garb (*ῥάκος*) of a cynick.”

3. Ἀδάμας. *Diamond*.

The ancients certainly apply this word to our modern gem the diamond, but use it in a larger sense as we still use adamant, applied

to other hard substances. But in the only passage where it occurs in the Periplûs, it is mentioned on a coast where diamonds very probably were to be purchased, and is joined with the Hyacinth or Jacinth, and other transparent stones.

4. Ἀλόη. *Aloe.*

There are two sorts of Aloe, one a bitter cathartick, and another an aromattick, by some supposed to be the sandal-wood. See Salm. Plin. Ex. 1056. It is probably used by the author of the Periplûs in the former sense, as being mentioned on the coast of Oman in Arabia, where the Succotrine Aloe is naturally imported, as the island Socotra itself was under the power of the Arabs on the main, being subject to Eleazus king of Sabbatha, in the neighbourhood of Oman.

5. Ἀνδριάντες. *Images.*

These are mentioned as imported into Oman in Arabia, but whether as merely ornamental, or objects of superstition, does not appear.

6. Ἀργυρέματα, Ἀργυρᾶ σκέυη, Ἀργυρέματα τετορευμένα. *Plate, Plate polished.*

These works in silver do not appear to be the beautiful produce of Greek artists, but vessels of plate adapted to the market. By the frequent mention of these articles they must have formed a considerable branch of commerce.

7. Ἀρσενικόν.

7. Ἄρσενικόν. *Arsenick.*

8. Ἀρώματα. *Aromaticks.*

Drugs in general are comprehended under this term (Sal. Plin. Ex. p. 1049, 1050).

9. Ἀσύφη. *A species of Cinnamon.* See *Κασσία.*

B

Βδέλλα. *Bdellium.*

An Aromatick gum, supposed to be imported from Africa, but now seldom used³. Salmasius⁴ describes it as a pellucid exudation from the tree so called, not quite clear, of a waxy substance, and easily melted, called by the Portuguese *anime*; there are three sorts, Arabic, Petraean, and Bactrian. It was imported, according to the Periplus, from Binnagara, or Minnagara [Bekkcr,] in Scindi, and from Barygaza [Baroach,] in Guzerat.

The בְּדֵלָה Bhdolahh of scripture, Gen. ii. 12. Num. xi. 7. rendered Bdellium, is by the Rabbis rendered Chrystal, and has nothing in common with the Bdellium of the Periplus but its transparency. The word Bdellium seems a diminutive of the Bdella used by our author. Pliny, b. xii. c. 9.

There are still found three sorts, two African, rather of dark brown hue, and one Asiatick, answering the descriptions of Salmasius, generally brought to England among parcels of myrrh. There are specimens of the African sort in the collection of Dr. Burgefs.

³ Chambers in voce,

⁴ Plin. Exercit. p. 1150.

Γ

Γίζιρ. Ζίγειρ. Γίζι. *A species of cinnamon.* See *Κασσία*, Zigeer in Perlick signifies finall.

Δ

Δικρόσσια, p. 8. *Dicroffia*.—*Cloths either fringed or striped.*

Κροσαί and *κροσαί*, according to Salmasius⁵, from Hesychius, signifies the steps of a ladder, or in another sense, the cornice of a wall, or the battlements. Salmasius derives the word from *κείρω*, to shave, and interprets *κρόσσι*, locks of hair. Hence cloths, *δικρόσσια*, he says, are those which have a fringe knotted or twisted.

But Homer uses the word twice. 1st. *Κρόσσας μὲν πύργων ἔρουν κ' ἔρειπον ἐπάλλξεις*. M. 258, where it agrees with the interpretation of Hesychius, the cornice of the wall, or as it may be rendered the *step* of the parapet, a *rim* or *line* running round below the battlements. Not differing, perhaps, from the usage of the word as used \approx 35, where Homer says, the ships were too numerous to be drawn up on the shore in one *line*. *Τῷ γὰρ προκρόσσας ἔρυσαν*⁶, they therefore drew them in *lines* one behind another like the steps of a ladder. Agreeable to the other explanation of Hesychius, or as Apollonius renders it, *ἀπουρηπιδώματα*, in *stripes*⁷.

We may therefore conclude, that we cannot err much in rendering the *Δικρόσσια* of the Periplūs, either cloths *fringed*, with Salmasius,

⁵ Plin. Exercit. p. 762.

⁶ See Lenstep in voce.

⁷ See Apolon. Lexicon in voce.

or *striped* with Apollonius. So Virgil, *virgatis lucent fagulis*. The term used here is in conjunction with cloths. "ἄβωλοι καὶ λέντια καὶ δικρόσσια, where perhaps ἄβωλοι is in opposition to δικρόσσια, λέντια is the Latin word Lintea.

Δηνάριον. Denarius.—*The Roman coin, worth in general denomination nearly 8d. English.*

It appears by the Periplus, that this coin was carried into Abyssinia for the sake of commerce with strangers, and that both gold^a and silver Denarii were exchanged on the coast of Malabar against the specie of the country with advantage to the merchant.

Δάσκα, Κιττά, Δάσκαρ,

Are joined in the Periplus with Cassia, and are supposed to be inferior species of the cinnamon. See Ramusio, in his discourse on the voyage of Nearchus, and Salmas. de Homonymiis Hyles Iatrices, c. xcii. c. xciii. a work referred to by Salmasius himself, but I have not seen it.

Δύλκα.

Slaves of a better sort and for the Egyptian market.

E

Ἐλαιον. Oil of Olives.

Ἐλίφας. Ivory.

Ἐυόδια. Fragrant spices or gums.

^a The gold Denarius, according to Arburth- the age of Nero.
not was the 45th part of a pound of gold in ^b Plin. Exercit. p. 1070.

Z

Ζώνες σκιστάς.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in *sashes*, ornamented with every sort of device, and wrought up with great expence. Σκιστάς does not occur in the lexicons, but probably means *shaded* of different colours.

Ζίγγιβερ. *Ginger.*

Not mentioned in the *Periplus*, but by *Salmasius**, who says the ancients knew little of it, and believed it to be the root of the pepper plant.

H

Ἡμίονοι ὑπηγῶν. *Mules for the saddle.*

Θ

Θυμίαμα μοσχοῦ. *Gums or Incense.*

I

Ἰμάτια Βαρβαρίνα ἀγναφὰ τὰ ἐν Αἰγύπτῳ γινόμενα. *Cloths,*

For the *Barbarine*** market, undressed and of Egyptian manufacture.—The *Barbarines* are the ancient *Troglodyte* shepherds of

* Plin. Exercit. p. 1070.

** The west coast of the Gulph of Arabia.

Upper Egypt, Nubia, and Ethiopia, very graphically traced and distinguished by Bruce.

Ἰμάτια βαρβαρικά σύμματα γεγραμμένα. *Cloths,*

For the Barbarine market, dressed, and dyed of various colours.

Ἰματισμός Αραβικὸς χειριδωτὸς ὅτε ἀπλῆς καὶ ὁ κονὸς καὶ σκοτελάτος
καὶ διάχρυσος. *Cloths*

Made up, or coating for the Arabian market:

1. Χειριδωτὸς:

With sleeves reaching to the wrist.

2. Ὅ τε ἀπλῆς καὶ ὁ κονὸς. See Ἄβελδι.

3. Σκοτελάτος.

Wrought with figures. From the Latin Scutum, Scutulatus; the figure being in the form of a shield. A dappled grey horse is thus called Scutulatus.

4. Διάχρυσος. *Shot with Gold.*

5. Πολυτελής.

Of great price.

6. Νόθος.

In imitation of a better commodity.

7. Περισσότερος.

Of a better quality, or in great quantity.

8. Παντοῖος.

8. Παντοῖος.

Of all forts.

9. Πολύμιτα πολύμπα.

Of thicker woof, or larger woof than warp.

Ἴπποι. *Horses.*

As presents, and as imports into Arabia.

K

Κάγκαμος. *Kankamus—Gum Lack,*

According to Scaliger; and Dioscorides calls it a gum. But Salmasius rather inclines to think it a drug like myrrh. Lack was used as a purple or blue dye by the Indigo dyers. *Ἰνδικοβαφοί.* Salmas. Plin. Exercit. 1148. 1152. Plin. xii. 20. See Pomet's History of Drugs, b. viii. p. 199, who says gum of four colours was found in one lump. He does not hold it to be Gum Lack, but that it has a smell like it; it is found in Africa, Brasil, and Saint Christopher's. Pomet's Specimen was from the West Indies.

Κάλτις. *Kaltis—A Gold Coin.*

According to the Periplús it was a coin of this name current in Bengal, and that the metal was collected from a mine in the neighbourhood. Stuckius says, a coin called Kalais is still current in Bengal, on what authority does not appear. Paolino notices the word, but I cannot recal the passage to my memory.

Καρπάσος. Karpasus—Fine Muslins.

Opposed to ordinary cottons. It is remarkable that the native Shankreeṭ term is *Karpasi*, as appears by Sir William Jones's catalogue. Asiatic. Ref. vol. iv. p. 231. Calcutta edition. But how this word found its way into Italy, and became the Latin *Carbasus* (fine linen) is surprizing, when it is not found in the Greek language. The *Καρπάσιον λίνον* 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. Salm. Pl. Exercit. p. 178.

Κασσία. Cassia.

This spice is mentioned frequently in the *Periplus*, 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. Their's was the tender shoot of the same plant, and of much higher value, sold at Rome in the proportion of a thousand denarii¹² to fifty; it was found only in the possession of Emperors and Kings; and by them it was distributed in presents to favourites, upon solemn occasions, embassies, &c. This sort we must first consider, because they themselves applied the name improperly, having it derived by their own account from the Phenicians¹³, and giving it to the same production, though in a different form and appearance from that by which it is known to us.

¹² Pliny.¹³ Herodotus, lib. iii. p. 252. ed. West.

The kinnamomum of the Greeks and Romans was necessarily derived from the Phenician ¹⁴, because the merchants of that country first brought it into Greece. The Greeks themselves had no direct communication with the east, and whether this spice was brought into Persia ¹⁵ by means of the northern caravans, or by sea into Arabia, the intermediate carriers between either country and Greece were of course Phenicians. It will therefore be no difficult matter to prove that the Phenician term expresses the cinnamon we have, and not that indicated by the Greeks and Romans. The term in all these languages signifies a pipe, for the Hebrew קנה Kheneh, is the Latin Canna; and Syrix, Fistula, Cannella, and Cannelle, convey the same idea in Greek, Latin, Italian, and French. The Hebrew term occurs in Exodus xxx. 23, 24, joined with Casia, as it is almost universally in the writings of the Greeks and Romans. It is styled sweet cinnamon, and is written קנה בושם ¹⁶, Khine-mon Besem, the sweet or sweet scented pipe, and the word rendered Casia by our translators ¹⁷ is קידה, Khiddah, from Khadh to split or divide longways. These two terms mark the principal distinctions of this spice in all these languages, as Khine-mon Besem, Hebrew; Casia Syrix, Greek; Casia Fistula ¹⁸, Latin; Cannelle,

¹⁴ See a curious mistake of Pliny's noticed by Larcher, of turning the Phenicians into a Phoenix. Tom. iii. p. 349.

¹⁵ By Persia is meant the whole empire.

¹⁶ The whole 33d. chapter is worth consulting on this curious subject, as it proves that many of the Oriental spices and odours were even in that early age familiar in Egypt.

¹⁷ If from this chapter of Exodus we prove that cinnamon was known to the Hebrews in the age of Moses, we have a second proof of its being used in the embalment of the Mum-

mies from Diodorus, lib. i. xci. tom. i. p. 102. Larcher, tom. ii. p. 334.

¹⁸ The Casia Fistula of the moderns is a drug totally distinct, it is a species of fenna which comes from the Levant, Egypt, Brasil, and the Antilles, and is a corruption from Acacia. Salm. Plin. Ex. p. 540. Certe Casie nomen pro ea specie quae solvit alvum ex Acacia factum quamvis diversum sit genus, Id. p. 1056. This corruption is not of very modern date, for Salmesius adds, ut mirum sit ante hos trecentos et amplius annos, Casiam Fistulam

Cannelle, French; Khiddah, Hebrew; Xylo-Casia¹⁹, Greek; Casia Ligna, Latin.

Whether the Greeks and Latins derive their term from the Hebrew khine-mon²⁰, or from the compound khenech-amomum, is not so easy to determine, for amomum is a general term²¹ for any drug or spice, and kin-amomum in this form would be again the spice-canna, the casia fistula under another description. But that the casia fistula and the casia lignea are marked as the two leading distinct species, from the time of Moses to the present hour, is self evident. And I now say, that if the Romans applied the term cinnamon to the tender shoot of this plant, and not to the pipe cinnamon, such as we now have it from Ceylon, their use of the word was improper. That this was the case there is reason to think, but that there was some obscurity, or fluctuation in their usage is certain also.

Salmasius²² quotes Galen to prove that the plant itself was brought to the emperor Marcus Aurelius, from Barbarikè²³, in a case seven

Fistulam Latinis dictam, eam que purgandi vim habet. See also Ramusio, vol. i. p. 282.

¹⁹ This species is distinctly marked in the Roman Law de publicanis, leg. xvi. D. Casia-Syriac. Xylo-Casia. Salm. 1055, id. in Canticis Salomonis Nardus, Crocus, Fistula cinnamonum. It is called *Σελαιστής*, Hard Casia, in the Periplus.

²⁰ *קנה מנה* is from *קנה*, a reed, canna, and the termination doubtful, but probably from *מנה*, peculiar. It is in this sense that *מנה*, manna signifies the food from Heaven. The peculiar food or bread. And hence *קנה מנה*, the peculiar canna, by way of pre-eminence. Parkhurst derives it not from *קנה*, canna, but from *קנה*, khamam, to smell strong,

but he allows there is no such verb in Hebrew. I cannot help thinking that *קנה מנה*, khenech besem, and *קנה מנה*, khinnemon besem, have the same root. The sweet khenech, the sweet khinnemon. Notwithstanding khenech besem is rendered calami odiferi, the sweet calamus, it is certainly not technically the calamus aromaticus.

²¹ Salm. 401.

²² Plin. Ex. p. 1304. Galen de Antidotis, lib. i.

²³ Barbarikè is perhaps not a proper name, but the port frequented by the Barbarians of Adal or Mojiylon. It is the mart in Scudi, but whether Patala or Minnagara, is difficult to determine.

feet long. Galen saw this, and there were other cafes of a smaller size, containing specimens of an inferior sort. This, therefore, must be in a dry state; but this he says was the true cinnamon. Undoubtedly it was, for the plant itself, and the spice, as we have it, in its usual form, have this difference and no more. But Galen says, in another passage²⁴, that casia and cinnamon are so much alike that it is not an easy matter to distinguish one from the other. And Dioscorides writes, "Casia grows in Arabia; the best sort is red, of a fine colour, almost approaching to coral, strait, long, and pipy, it bites upon the palate with a slight sensation of heat, and the best sort is that called Zigir, with a scent like a rose." This is manifestly the cinnamon we have at this day; but he adds, "cinnamon has many names, from the different places where it [is procured or] grows. But the best sort is that which is like the casia of Mofyllon, and this cinnamon is called Mofyllitick, as well as the casia." This therefore is only a different sort of the same spice, but it does not grow either in Arabia or at Mofyllon, it took its name from either country, as procured in the marts of either. This traffick is explained in the Periplus, but Dioscorides was unacquainted with it. The description²⁵ he gives of this cinnamon is, "That when fresh, and in its greatest perfection, it is of a dark colour, something between the colour of wine and [dark] ash, like a small twig or spray full of knots, and very odoriferous." This is manifestly not our cinnamon, but the same as Galen's, the tender shoot and not the bark. It is worth remarking that Dioscorides lived in the reign of Nero²⁶, and if the true source of cinnamon was

²⁴ See Ramusio, vol. i. p. 282. The whole of this is from Ramusio.

²⁵ See Larcher's whole Dissertation, tom. iii.

p. 348. •He is equally indebted to Salmafius as myself.

²⁶ Hoffman in voce.

then

then just beginning to be known by means of the navigation detailed in the *Periplus*, this knowledge had not yet reached Asia²⁷ Minor or Rome. Pliny who lived a few years later had just arrived at this information, for he says expressly, Mofyllon was the port to which cinnanon was *brought*²⁸, and consequently the port where it was procured by the Greeks from Egypt, and through Egypt conveyed to Rome. It had long been procured there, and long obtained the name of Mofyllitick, but it was now known not to be native, but imported at that place.

The trade to Mofyllon was opened by the Ptolemies; still before the existence of a Grecian power in Egypt, the Greeks had probably little knowledge of it, but from the importation of it by the Phenicians; and the Phenicians received it, either by land carriage from the Idumeans of Arabia, or when they navigated the Red Sea themselves with the fleets of Solomon, they obtained it immediately from Sabêa; perhaps also, if Ophir is Sofala on the coast of Africa, they found it either at that port, or at the others, which the Greeks afterwards frequented. These lay chiefly in Barbaria, (the kingdom of Adel,) comprehending the ports of Mofyllon, Malao, and Mundus, where it was possibly always to be met with. This commerce indeed is at best only conjectural, neither could it be of long duration, as it ended with the reign of Solomon, and was never resumed; but that the Phenicians had a settled intercourse with Sabêa we learn incontrovertibly from Ezekiel²⁹, and that Sabêa was the centre of Oriental commerce, is proved in our account of the *Periplus*.

²⁷ Dioscorides was a native of Anazarba, but whether he wrote there or at Rome, I have not been able to discover.

²⁸ Portus Mofyllites quo cinnamomum *devehitur*. Lib. vi. c. 29.

²⁹ Cap. xxvii. v. 23. Sheba is Sabêa.

It is this circumstance that induced all the early writers to impute the produce of India to the soil of Arabia; an error which commenced with the first historians extant, and which existed in history till the age of Pliny, and in poetry almost to the present hour. Fable is the legitimate progeny of ignorance; we are not to wonder therefore when we read in Herodotus³⁰, that casia grew in Arabia, but that cinnamon was brought thither by birds from the country where Bacchus was born, that is India. The term used by Herodotus indicates the cinnamon we now have, for it signifies the peel, hull, or rind³¹ of a plant, and evidently points out the bark under which form we still receive this spice. The error of Herodotus is repeated by Theophrastus, who assigns both casia and cinnamon to Arabia³²; this intelligence I receive from Bochart, and I am obliged to him also for a very curious citation from Uranius, in Stephanus de Urbibus, who says, the country of the Abasenes produces myrrh, aromattick gums, or odours, frankincense, and the bark [of cinnamon]³³. This passage is valuable as the first instance extant in which the name of Abyssinians is mentioned. But it is not to be depended on, unless it can be referred to the conquests of that nation in Arabia, for these Abaseni are evidently joined with the Arabians of Sabæa and Hadramaut.

But whatever errors are to be found in ancient authors, relative to the production of spices in general, and cinnamon in particular,

³⁰ Lib. iii. p. 252. ed. Weff. and p. 250. where he mentions a similar fable of serpents which guard the frankincense.

³¹ Κάσσιος, from Κάσσις, arefacio, to dry, and hence the dry hull, peel, or shell of a plant or fruit.

³² Bochart, vol. i. p. 105. Sir William

Jones, Af. Ref. iv. 110. 113.

³³ Ἡ γὰρ τῶν Ἀβασενῶν φέρεται καὶ ἄλλο [quod ἔστι] καὶ θυμιάμα καὶ ΚΕΡΠΑΓΟΝ. Bochart, vol. i. p. 106. Κίρρατος is probably the Κάσσιος of Herodotus, unless it is a false reading for Κάσσιος or Κάσσιος, one of the terms for cotton.

still that they found their way into Egypt, Palestine, Greece, and all the countries bordering on the Mediterranean, in the earliest ages, is a fact. This admits of proof from the thirtieth chapter of Exodus, and we have traced the course of their introduction in the preliminary disquisitions of the first book.

We may now, therefore, proceed to examine the various sorts of this spice, mentioned in the Periplus, which amount to ten; and very remarkable it is, that the modern enumeration of professor Thunberg should comprehend just as many species. Not that it is to be supposed the species correspond, but the coincidence of number is extraordinary. It is worthy of notice also, that cinnamon is a term never used in the Periplus, the merchant dealt only in casia, cinnamon was a gift for princes; there is even in this minute circumstance a presumption in favour of his veracity, not to be passed without observation.

His ten sorts are,

1. *Μοσυλλιτικὴ*. *Mosyllitick*.

So called from the port Mosyllon, where it was obtained by the Greeks from Egypt, and whither they always resorted from their first passing the Straits of Bab-el-Mandeb. It was the casia fistula, the same as we now have from Ceylon, and imported at Mosyllon directly from India, or from the Arabian marts on the ocean, which were rivals of the Sabæans. It is mentioned by several authors as the best sort, or inferior only to Zigeir, and therefore could not be native: there is indeed cinnamon on the coast of Africa, but it is hard;

hard, woody²⁴, and of little flavour. The regio cinnamomifera of Ptolemy, bears no other sort but this; he places this tract at the boundary of his knowledge, that is, between Melindà and Mosambique, and if it is in any way entitled to the name, it cannot be from its own produce, but on account of the importation of the spice from India; the traders who found it there, might suppose it native, in the same manner as the early writers speak of the Mofyllitick, and which (as has been already noticed,) Pliny first mentions as imported. The Mofyllitick species is rarely called cinnamon by the ancients, but casia only. Their cinnamon was exhibited as a rarity, as that of Marcus Aurclius before mentioned. Antiochus Epiphanes²⁵ carried a few boxes of it in a triumphal procession; and Seleucus Callinicus presented two minæ of this species, and two of casia, as the gift of a king to the Milesians. The casia or modern cinnamon was found formerly in Java, Sumatra, and the coast of Malabar; from the coast of Malabar it found its way to Africa and Arabia; but when the Dutch were masters of Cochin²⁶, they destroyed all the plants on the coast, in order to secure the monopoly to Ceylon; and none is now met with on the coast, but an inferior wild sort, used by the natives, and brought sometimes to Europe for the purpose of adulteration.

²⁴ Seven different sorts Oriental, and two American, I have seen in the collection of Dr. Burgels; and an African species which is not a bark, but a mere stick, with little flavour. It answers well to the character of *mosylytick*.

²⁵ Athenæus, lib. v. p. 195. lib. ix. p. 403.

²⁶ The Dutch are accused of this by their rivals, as well as diminishing the growth of nutmegs, &c. in the Molucca islands. But I observe in the account of Hugh Boyd's embassy to Ceylon (Ind. Annual Register, 1799), an assertion, that the true cinnamon never grew any where but in Ceylon.

2. Γίζειρ, Ζίγειρ, Γίζι. *Gizeir, Zigeir, Gizi.*

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that *Zigeir*, in Persian and Arabick, as I am informed, signifies *small*³⁷. The smaller bark must of course be from the smaller and tenderer shoots, which is still esteemed the best; the harder and thicker bark is cut and made to roll up in imitation of this, but is inferior, though from the same plant. This at least is supposed; but I do not speak from authority.

3. Ἀσύφη. *Afyphè.*

This term, if not Oriental, is from the Greek ἀσύφηλος, *afyphèlos*, signifying *cheap* or *ordinary*, but we do not find *afyphè* used in this manner in other authors; it may be an Alexandrian corruption of the language, or it may be the abbreviation of a merchant in his invoice.

4. Ἄρωμα. *Aroma.*

Aroma is the general name for any sweet-scented drug, but it is twice inserted in a list of casias, and is therefore probably a species as well as the others. It would intimate an aromatiek smell or flavour, and is possibly one of superior quality. It is remarkable that Moses uses the same term of sweet-scented cinnamon.

5. Μάγλα. *Mégla.*

A species unknown.

³⁷ I doubt this relation at the same time I whether the Greek term *casia* be not a corruption of *gizi*. notice it; but an inquiry might still be made,

6. Μοσά. *Mossá.*

A species unknown.

7. Σκληροτέρα. *Scleroterá.*

From the Greek *Σκληρός*, hard. This is a term which occurs frequently, and perhaps distinguishes the *casia lignea* (wood cinnamon), from the *casia fistula*, (cannelle or pipe cinnamon,) it may, however, signify only a hard and inferior sort, in opposition to brittleness, which is one of the characters of the superior species.

8, 9, 10. Δάκα, Κιττά, Δάκαρ. *Duaka, Kitta, Dacar.*

All unknown. But Salmasius and other commentators agree in supposing them all to be species of the same spice.

These are the ten sorts enumerated in the *Periplus*³¹. Professor Thunberg, who visited Ceylon in his voyage from Batavia, reckons ten sorts likewise. Four of nearly equal value and excellence, three that are found only in the interior above the Ghauts³², in the government of the king of Candi; and three which are not worth gathering. The most remarkable which he mentions are:

The raffle³³ or penni-curundu, honey cinnamon, and capuru curundu, or camphor cinnamon, from the root of which camphor is distilled; this last is found only in the interior. The cinnamon for the European market was collected in the woods by the natives

³¹ Two other sorts may be collected from Galen; Arebo, and Daphnite. Larcher, Herod. vol. iii p. 345.

³² I use the term improperly, but Ceylon partakes of the nature of the continent, the

coast is a level, the interior is high and table land. All above the mountains is still possessed by the king of Candi; the Dutch had, and English have, only the coast.

³³ See Knox's History of Ceylon, p. 16.

employed.

employed in the Dutch service, but has since been planted on the sandy downs on the coast; these plantations, besides their convenience, are so thriving, that the practice is likely to be continued. Can I conclude this account without observing that this rich and valuable island is now in the possession of the English, and without a prayer that the commerce may be conducted on more liberal principles, and the natives treated more generously by them than by their predecessors. The knowledge which the ancients had of this island will be treated at large in the Second Part of the Periplus, and it is to be hoped that the present governour Frederick North, whose mind is stored with ancient knowledge, and whose attention is alive to modern information, will communicate his researches to the publick.

I have only to add, that the Shanskreec names of this spice are *savernaca* and *ourana*, as I learn from the Asiatick Researches, vol. iv. p. 235. and that *Salmasius* mentions *salihaca* as the Arabick appellation, which he derives from the Greek *Ξυλακή*, lignea, or woody, (p. 1306.) but which, if I did not pay great respect to his authority, I should rather derive from *Salikè* the Greek name of the island in the age of Ptolemy. I have now only to request that this detail, too prolix for the work, may be accepted by the reader, not as the natural but the classical history of cinnamon.

Κασσίτερος. Tin.

Tin is mentioned as an import into Africa, Arabia, Scindia, and the Coast of Malabar. It has continued an article of commerce brought out of Britain in all ages, conveyed to all the countries on the Mediterranean, by the Phenicians, Greeks, and Romans, and carried

ried into the Eastern Ocean from the origin of the commerce. It is only within these few years it has found its way into China in British vessels, where it is now become an article of such magnitude, as greatly to diminish the quantity of specie necessary for that market.

Καττυβερίνη, Πατροπαπίγη, Καβαλίτη. *Kattyburinè, Patropapigè, Kabalitè.* Peripl. p. 28.

Different species of nard. See Νάρδος.

Καυνάκαι ἀπλοῦ ἢ πολλῶ. *Kaunakai.*

Coverlids plain of *no great value*, (or according to another reading, *not many*,) with the knap on one side. Hefychius and Phavorinus, cited by Hudson.

Κολανδιόφωνα. *Kolandiophonta.*

Large Ships on the coast of Travancour, in which the natives traded to Bengal and Malacca. They had vessels also called Sangara, made of one piece of timber, which they used in their commerce on the coast of Malabar. The Monoxyla of Pliny, employed in bringing the pepper down the rivers to the coast. Lib. vi. p. 23.

Κοράλιον. *Coral.*

Κοστος⁴¹. *Costus, Costum,*

Is considered as a spice and aromack by Pliny, lib. xii. c. 12. It is called radix; *the root* pre-eminently, as nard, is styled *the leaf*.

Costus

⁴¹ It is worthy of remark that in the enumeration of gifts made by Seleucus Callinicus to the Milesians, there should be this distinction:
Frankincense 10 talents.

Myrrh	-	-	1 talent.
Cassia	-	-	2 pounds.
Cinnamon	-	-	2 pounds.
Costus	-	-	1 pound.

The

Costus being, as we may suppose, the best of aromati^c roots, as nard or spikenard was the best of aromati^c plants. This supposition explains a much disputed passage of Pliny. Radix et folium Indis est maximo pretio; the (root) costus, and the (plant) spikenard are of the highest value in India. Radix Costi gustu fervens, odore eximio, frutice alias inutili; the root of the costus is hot to the taste, and of consummate fragrance, but the plant itself, in other respects, without use or value. It is found at the head of the Pattalenè, where the Indus first divides to inclose the Delta, of two sorts, of which that which is black is the inferior sort, and the white best. Its value is sixteen denarii⁴², about twelve shillings and eightpence a pound. Thus having discussed the costus or root, he proceeds to the leaf or plant. De folio nardi plura dici par est, but of this hereafter. It is here only mentioned to give the true meaning of the passage.

This root is said by Salmasius to grow in Arabia as well as India; and I do not find that it has acquired any European name, though it was formerly much used in medicine, and called the Arabian or true costus. It always contracts a bitterness, and grows black by keeping, which probably accounts for the white being more valuable (as Pliny says), because it is fresh. Mr. Geoffroi, a French academician, mentioned under this article, in Chambers's Dictionary, considers it as the European elacampane root, which he asserts, when well sed and prepared, has the properties of the Indian aromati^c.

Costus corticosus bark, costus has a scent of cinnamon.

The reason is evident; frankincense and myrrh were procurable in Arabia, which bordered on his own kingdom. Casa, cinnamon,

and costus were East India commodities. See Chishull, Antiq. Afiat. p. 71.

⁴² The numbers in Pliny are dubious.

Λ

Λάδανον⁴³.

A gum or resin from a plant called leda, lada, or ledum, a species of cistus. It is of a black colour, from Arabia; the East India sort is very heavy, and like a grit-stone in appearance. Dr. Burgefs informs me that it is adulterated with pitch from Pegu.

Λάκος χρωμαίνως. *Laccus. Coloured Lack.*

Is a gum adhering to the small branches of trees; supposed to be deposited by an insect.—When taken off and melted it is reddish, formed into granulated seed, lack for japanning; into shell-lack for sealing-wax. Pomet. book viii. p. 200.

A dye of the red purple, (according to Ramusio, pref. to the Periplus, *lacco de tingere*) but Salmasius, Plin. Exercit, p. 1160, says it is a cloth of this colour.

Λέντιν. *Linen, from the Latin lintea. See Ιματισμός.*

Λίβανος. *Frankincense*⁴⁴.

Λίβανος ὁ περατικός. *From the Coast of Adel.*

A gum or resin sufficiently common in Europe still; originally introduced from Arabia only, and used by the nations on the Medi-

⁴³ Herod. lib. iii. p. 253, where he says, tom. iii. p. 350.
it is collected from goats' beards, a most fragrant odorific gum. See Larcher, Herod.

⁴⁴ Olibanus, oleum Libani.

terranean under the denomination of thus and libanus which are synonymous. Its name is derived from לבן, liban, white, Heb. and לבן, loban, Arabick, because the purest sort is white⁴⁵ without mixture. See Bochart, tom. i. p. 106. Hence libanus and the corrupt olibanum. M. Polo calls it *encens blanc*. Bergeron's Col. p. 153. It was chiefly brought from Hadramaut or Sagar, a tract of Arabia on the ocean. The best sort is likewise in small round grains called χόνδρος, from the Arabick چندر, chonder. Bochart, ibid. But Niebuhr says, that the libanus of Arabia at present is greatly inferior to that brought from India, as being foul, mixed with sand and stones; he adds also, that the plant which produces it, though cultivated at Kefchia and Schahr (Sagar) is not native, but originally from Abyssinia. See Niebuhr. Arabia, tom. i. p. 202. ii. p. 131. in which opinion he is supported by Bruce. When he was in Arabia the English traders called the Arabian sort incense of frankincense, and the Indian or better sort, benzoin, and the worst benzoin was esteemed more than the best incense. The Arabs themselves preferred the Indian to their own, and called it bachor Java, either because it grew in that island, or was imported from Batavia. See also d'Anville, Geog. Anc. tom. ii. p. 223.

Αθίας Ἰαλῆς πλείονα γένη ἐν ἄλλῃς Μυρρίνῃς τῆς γενομένης ἐν Διοσπόλει. *Glass and Porcelane made at Diospolis.*

1st, Lithia Hyala. Several sorts of glass, paste, or chrystal.
See article Αθία διαφανής.

2d, Αθία Μυρρίνη.

⁴⁵ It grows yellow by keeping. Dr. Burgers has specimens of Arabian libanus, but possibly Oriental.

Which Salmafius fays, ought always to be written *morrina*, not *myrrhina*, *myrrina*, *murrhina*, or *murrina*. And he maintains that it is certainly the Oriental porcelane. It is here evidently joined as the adjective to *Λιθία*, as it is afterwards (p. 28. Peripl.) mentioned with *Λιθία ονυχίνη*, and connected in a similar manner *Λιθία ονυχίνη ἐξ Μεσσηίνης**, where it is specified as brought down from the capital of Guzerat, Ozene, (Ougcin,) to the port of Barygaza or Baroach. All this seems to confirm the opinion that it was porcelane procurable in India at that time, as it now is; and that it was brought into Egypt by the ships that went to India. But what is more extraordinary is, that it was imitated in the manufactories of Diospolis in Egypt, just as our European porcelane is now formed upon the pattern of the Chinese.

But in opposition to this, Gesner produces a variety of authorities from Io. Frid. Christius, to prove that it is a fossil and not factitious. The principal one is from Pliny, lib. xxxvii. c. 2. where it plainly appears that Pliny thought it a fossil from Carmania, while his description of it suits porcelane better than any substance which we know, as, variety of colours, purple, or rather blue and white spots, with a sort of variegated reflection between both. Martial styles it *myrrhina picta*, xiii. p. 110. and notices it as capable of containing hot liquors.

Si calidum potes ardenti murra Falerno
Convenit, et melior fit sapor inde mero.

This *sapor* and the *odor* mentioned by others are the only properties we cannot attribute to it in conformity with the language of the ancients. Martial notices likewise,

Maculose pocula murra.

* And thus Gesner cites; Heliogabalus . . . myrrhinis et onychinis mixit. Lamprid. 32.

And when another citation is adduced

Murecaque in Parthis pocula cocta focis. PROPERTIUS. iv. 5. 26.

Christius is forced to contend that *mureca* is not the same as *murhina*, but an imitation like the Diospolite manufacture.

That it came from Parthia⁴⁷ into Egypt, to the countries on the Mediterranean, and to Rome, seems evident from a variety of authorities, and that it might well do, if we consider that Parthia communicated with India by means of the Persian Gulph, and possibly on the north with China⁴⁸ itself, by means of the caravans. The mention of Carmania by Pliny, as the country where the murhina were obtained, favours the supposition of procuring these vessels from India; for the communication of Carmania with Scindia and Guzerat is almost immediate, and certainly prior to the navigation from Egypt to that coast. But in Guzerat they were obtained, when the author of the Periplus was employed in that trade; and their arrival at the market of Baroach, from the interior of India, may induce us to suppose, that they came into India from the north.

The immense value of these vessels at Rome might well arise from their scarcity. They were first seen there in the triumphal procession of Pompey; and it must be observed that Pompey returned from the shores of the Caspian Sea. They were afterwards introduced into use at the tables of the great, but of a small size and capacity, as cups for drinking. Afterwards one which held three

⁴⁷ The kingdom, not the province, as we may see from a former citation noticing Carmania.

⁴⁸ That there was an intercourse with the Sceres on the north of the Himala mountains, and that exchange of commodities took place

at some frontier, like that between the Russians and Chinese at Kiatcha is evident from Ptolemy, Pliny, and the Periplus. Whether the Sceres were Chinese or an intermediate tribe between India and China is not material.

sextarii or pints, was sold for seventy talents; and at length Nero gave three hundred for a single vessel. The extravagance of the purchaser might in this instance enhance the price, but the value of the article may be better estimated by the opinion of Augustus, who, upon the conquest of Egypt, selected out of all the spoils of Alexandria a single murrhine cup for his own use. Now therefore if the murrhine was porcelane, it may be a piece of information acceptable to our fair countrywomen, to know that Cleopatra did not indeed sip her tea, but drink her Mareotick wine out of china.

I have not been able to consult the work of Christius, but take the account of his argument from Gesner, and I refer the reader for further information to Gesner in voce, to Chambers's Dictionary, to Salmasius, Plin. Exercit. and to an express dissertation in the Volumes of the Academy of Belles Lettres, which I have formerly seen, but have not now an opportunity of consulting. I recollect that it is in favour of Salmasius's opinion, that murrina and porcelane are the same.

Λίθια διαφανή.

A transparent substance of stone or pebble, but it is probably here the glass made of stone as clear and bright as chrystal, and the same as *Υαλή*, Hyalè mentioned before. Salmasius, p. 1096, has a very curious quotation from the Scholiast on Aristophanes ad Nubes, Act ii. scen. 1. "We call Hyalos (he says) a material made of a certain plant burnt, and wasted by fire so as to enter into the composition of certain [glass] vessels. But the ancients appropriated the term hyalos to a transparent stone called kruon, or chrystal."—This perfectly accords with the manufacture of glass, composed of sand, or flints, and the ashes of a plant called kali or vitraria

vitruvia in Narbonne. *Salm. *ibid.* and Chambers in voce. But glass has its name from *glastum*⁴⁹ or woad, *the blue dye*, because common glass was of that colour, but the transparent stoney glass [flint glass] here mentioned seems to take its name [*διαφανής*] transparent, and [*Υαλός*] chrystalline, from its superior purity and imitation of the chrystal. The whole passage in the Scholiast is interesting, and worth consulting. Nubt. act. ii. scen. i. l. 766. Τὴν Ὑαλον λέγουσι.

“The hyalos or chrystal is formed circular and thick for this purpose [the purpose of a burning glass], which being rubbed with oil and warmed, they bring near the wick of a lamp and light it:” [it was rubbed with oil probably to clean it, but why warmed does not appear.] “Homer knew nothing of the chrystal, but mentions amber:” [true, for with Homer *κρόσταλλος* is always ice.]

Hence it appears that chrystal was known to Aristophanes, and the application of it to the purposes of a burning glass; that glass was known in the time of the Scholiast, and that Homer knew nothing of either. The use of a pebble or chrystal, however, to kindle fire is known at least as early as the writings of Orpheus *περὶ λήθων*. And if the writings attributed to Orpheus be really the work of Pythagoras, or a Pythagorean, as Cicero supposes, *De Nat. Deorum*, the knowledge of this property is still very old.

That clear or flint glass assumed its name from Ὑαλός, chrystal, is still more apparent from a passage of Diodor. Sic. lib. ii. p. 128. ed. Wessell. where mention is made of both sorts, the facitious and native

⁴⁹ See Vossius ad Melam, Varior. ed. 1722, who cites Pliny, lib. xxii. c. 1. Simile Plautagini Glastum in Gallia, quo Britannorum conjuges nurusque toto corpore oblitæ. Vof-

sius adds, apud Cambro-Britannos isatidis proventus Glas appellatur, et cæruleum colorem. Herba isatis is Woad.

"Τελλον, as he writes it. The glass coffin of Alexander is called "Γαλίση, by Strabo, lib. xvii. p. 794. See Herod. iii. p. 206. et Wessl. not. et Diod. ii. p. 15.

Λίθος καλλεανός καλλαϊνός.

Stone of Callean, literally Goa stone, for Callien is a river that falls into the sea near Goa, and retains its name to this day. Rennell, d'Anville. Not that this is the modern drug so called, but a blue stone²⁰, according to Salmasius, p. 240, and an emerald in the estimation of Ramusio, pref. to the Periplus.

Λίθος οψιδανός.

Probably serpentine or hæmatite marble, in the opinion of Dr. Burgefs. Opfian or opsidian stone. But Salmasius ridicules Pliny for calling it opfidian, or saying it was discovered by Opfidius. In Greek it is always opfian, and is a green stone very dark, approaching to black. It was found in the islands of Ethiopia; and from taking a high polish was used by the emperor Domitian to face a portico, so that from the reflection he might discover if any one was approaching from behind.

The opfidian stone, mentioned by Pliny, is facitious, and seems very much to resemble the material of which our brown or red tea-pots are composed. Totum rubens, atque non translucens, hæmaticum appellatum. See discourse in the Memoirs of the Academy of Sciences. The specimens of this stone, which I have seen, are so dark that the green cast can only be discovered by holding them in a particular position. The closeness of their texture seems

²⁰ But he mentions it as a topaz, and says blue, why not a 'turquoise? which is still a there are topazes of two different colours; if favourite stone in the cast.

to admit of any degree of polish that the artist may be disposed to give them.

Λύγδος. Lygdus.

A beautiful white marble, or rather alabaſter uſed to hold odours; Ramuſio. Salmaſius ſays, an imitation of this alabaſter³³ was formed of Parian marble, but that the beſt and original lygdus was brought from Arabia, as noticed in the Periplūs, from Moofa. Salm. p. 559.

Λύκειον. Lycium.

A thorny plant, ſo called from being found in Lycia principally. A juice from which was uſed for dying yellow, mentioned by Pliny and Dioſcorides. The women alſo, who affected golden locks, uſed it to tinge their hair. Salm. p. 1164. Why this ſhould be ſought in Scindi, if it was found in Lycia, does not appear. It is found now in the ſhops by the name of the yellow-berry, box thorn, grana d'Avignon. Dr. Burgeſs.

Λωδικες. Lodices.

Quilts or coverlids.

ἔ πολλὰ ἀπλοῖ κ' ἐντόπιοι.

Coverlids plain and of the country manufacture at Moofa.

³³ Unguenta optime ſervantur in alabaſtris. Plin. lib. xiii. p. 3.

M

Μαργαρίται, p. 84.

Pearls, fished for near Cape Comorin, where the fishery still continues, or the Lackdive Islands, formed a great article of commerce on the coast of Malabar.

Μαλάβαρον, p. 84. *Malabathrum*.

A drug or aromattick as much disputed as any Oriental name which occurs. But generally supposed to be the betel nut, written betre, and preserving a relation to the two final syllables of the Greek. This nut is enclosed in the leaves of a plant called arecka, mixed with lime and sometimes with odours, and used as a masticatory, by almost all the Oriental nations, but more particularly in the Molucca islands, the Golden Chersonese, and China; it turns the teeth black, and consequently makes white teeth out of fashion, as Prior says,

King Kihu put ten queens to death,
Convict on statute, Ivory Teeth:

The composition, being from two plants, the beetle nut and the arecka leaf, has probably given rise to the variety of descriptions and allusions in different authors. But Horace, lib. ii. ode, 7, uses it evidently as an aromattick unguent;

— nitentes,

Malobathro Syrio capillos.

And Pliny, lib. xii. 26. xiii. 1. confirms the allusion by making it an unguent from Syria, but says a better sort comes from
e Egypt,

Egypt, and superior still from India. This, therefore, cannot be the Oriental betel, though as an exquisite odour it may, by some intermediate corruption, have usurped a name, from the true *βαβγου* or betel. The price was prodigious, according to Pliny, the drug costing three hundred denarii, ten pounds a pound, and the oil sixty or seventy denarii. It was used, he adds, as an odour in wine lukewarm, and had the flavour of spikenard⁵².

Whether the author of the *Periplus* uses malabathrum, as the unguent known to Pliny and the Romans by that name, cannot be determined, as he merely gives the name without explanation in his list. But that he had obtained an obscure knowledge of the betre, and its form as rolled up in leaves, is proved in the manner of his using the term *petros*. This demands a separate consideration, and will be found at the conclusion of the *Periplus*, explained in all its parts, as far as the learning of Salmasius can guide us.

Μάκσιπ. Macer.

An aromattick from India, the bark red, the root large. The bark used as a medicine in dysenteries. Plin. xii. 8. Salm. 1302.

Μάχαργας.

Knives or canjars worn at the girdle.

⁵² It appears by Pliny, lib. xiii. c. 2. that almost all the fragrant odours of the east entered into the composition of their unguents. In the royal Persian unguent no less than twenty-six odours are enumerated, and among them the malobathron, which is not so properly an odour as a stimulant, if it be the betre, but it is frequently confounded with

the spikenard, the first of odours, which is pre-eminently called *folium*, or *the leaf*, in opposition to *coilus*, or *the root*. But the betel-nut being wrapt in the areeka leaf has probably given rise to the mistake. See Pliny, lib. xii. c. 12. where the *hadrosphaerum*, *mesosphaerum*, *microsphaerum*, all distinctions of the betel, are falsely applied to the spikenard:

Μελιέφθα χαλκιά.

Brafs²² or copper, prepared, as Ramusio fays, for vessels of cookery. But rather for ornaments of women, as bracelets, anklets, and collars. No usage of Μελιέφθα occurs elfewhere; but metals were prepared with feveral materials to give them colour, or make them tractable or malleable. Thus χολόδαφα in Hefychius was brafs prepared with ox's gall to give it the colour of gold, and used like our tinsel ornaments or foil for stage dresses and decorations. Thus common brafs was neither ductile nor malleable, but the Cyprian brafs was both. And thus, perhaps, brafs, μελιέφθα, was formed with some preparation of honey.

Μέλι καλάμινον τὸ λεγόμενον σάκχαρι.

Honey from canes. *Sugar.*

In Arabick, shuker, which the Greeks seem first to have met with on the coast of Arabia, and thence to have adopted the Arabick name. It is here mentioned on the coast of Africa, where the Arabians likewise traded, and either imported it themselves from India, or found it imported; it was evidently not found in that age growing in Africa. The Shanskrete name of sugar is ich-shu-casa, and from the two middle syllables the Arabick shuka, or shuker. Af. Research. iv. 231.

Μελίλωτον. *Honey Lotus.*

The lotus or nymphæa of Egypt. The stalk contains a sweet and eatable substance, considered as a luxury by the Egyptians, and used

²² This article is very dubious.

as bread; it was sometimes carried to Rome, and the Periplūs makes it an article of importation at Barygaza. It appears also to have been used as provision for mariners; and if this was the favourite bread of Egypt, in preference to grain, Homer might well speak of it as a luxury and delicacy; but his lotus is generally supposed to be the fruit of a tree, by our African travellers. Authors differ, some asserting that it is still common in the Nile, others saying that the lotus now found there has neither pulp nor substance.

Μικρότε θυμίαμα.

An incense called mocratū or mocratōn.

Μολόχινα.

Coarse cottons of the colour of the mallow. Others read *Μοναχὴ*, either single threaded or of one colour.

Coarse cotton dyed of a whitish purple, and therefore called molo-china from *Μολόχη*, *mallows*. Wilford, *Asiat. Dissertations*, vol. ii. p. 233.

Μόλυβδος. *Lead.*

Μοσά.

A species of cinnamon. See *Κασσία*.

Μύρον.

Myrrh or oil of myrrh. Unguent in general, but pre-eminently of myrrh¹⁴.

¹⁴ The African is best, the Abyssinian, Arabian, and Indian worst. Dr. Burgess.

A gum or resin issuing from a thorn in Arabia, Abyssinia, &c. Bruce has given an account of the plant; he says it is originally from Africa, and that the Arabian myrrh is still an inferior sort. See Bruce, Chambers, and Salmasius.

Μυρρίνη. See Λοβία Μυρρίνη.

Porcelanc. See Gefner and Chambers in vocc.

N

Νάρδος.

Nard or spikenard, p. 93. Νάρδος Γαπανική. Others read Γαγγι-
τική, nard of Gapanick or of the Ganges.

No Oriental aromack has caused greater disputes among the critics, or writers on Natural History, and it is only within these few years that we have arrived at the true knowledge of this curious odour, by means of the inquiries of Sir William Jones and Dr. Roxburgh.

Their account is contained in the ivth volume of the Asiatick Researches, and Dr. Roxburgh was so fortunate at last as to find the plant in a state of perfection, of which he has given a drawing that puts an end to all controversy on the subject.

The nard has the addition of spike from the Latin *spica*, an ear of wheat, which, according to Dr. Roxburgh's drawing, it perfectly resembles. And this adjunct is found also in its Arabick name, *fumbul*. And in its Shanskreet appellation, *jatámánsi*; as also its Persick title *khústah*, all signifying *spica*.

Sir

Sir William Jones, *Asiat. Ref.* iv. 117, says it is a native of Budtan, Népal, and Morang; and that it is a species of Valerian. It is remarkable that he had himself seen a resemblance of it in Syria, as the Romans or Greeks mention Syria as one of the countries where it is found; but Ptolemy gives it its true origin in these tracts of India. A specimen was brought down to Calcutta from Boudtan at the request of Sir William Jones, and the agents of the Deva Raja called it pampi; but it was not in flower. Some dried specimens of it looked like the tails of ermines, but the living ones, as Dr. Roxburgh afterwards found, rise from the ground like ears of wheat. It answers the description of Dioscorides. It is weaker in scent than the Sumbul spikenard of Lower Asia, when dry, and even lost much of its odour between Budtan and Calcutta. The odour is like the scent of violets; but the living plant is forbidden to be brought out of Boudtan. It was, however, procured by the intervention of Mr. Purling the English resident; and was at last received in its perfect form by Dr. Roxburgh, who has described it botanically. *As. Ref.* iv. 733.

In the age of the *Periplus* it was brought from Scindi, and from the Ganges; which, according to Sir William Jones, we ought to conclude would be the natural port for it, as coming from Boudtan. This authorizes the change of reading from *γαπανικη*, [gapanika,] to *γαγγητικη*, [gangitika], more especially as it is mentioned at the Ganges. Some fanciful inquirers might think they had found the mention of Japan in this passage.

We ought not to omit some particulars from Pliny which are remarkable. He describes the nard with its spica, mentioning also that both the leaves and the spica are of high value, and that the odour

odour is the prime in all unguents. The price an hundred denarii for a pound. And he afterwards visibly confounds it with the malobathrum or betel, as will appear hereafter, from his usage of hadrosphærum, mesosphærum, microsphærum, terms peculiar to the betel. The characteristick name of the nard is folium⁵⁵, *the leaf* pre-eminently, in contradistinction to costus *the root*, both as the prime odours of their two sorts, the root and the leaf.

But there is still a more remarkable particular in Pliny, which is, that he evidently copies the Periplus in the three places he allots for the markets of the spikenard; for he mentions Patala at the head of the Delta⁵⁶ of the Indus, correspondent to the Barbarika of the Periplus, and another sort which he calls Ozænítides, evidently agreeing with the mart of Ozéne (p. 75. Periplus); and a third sort named gangitick, from the Ganges, answering to gapanick, for which all the commentators agree in reading gangitick. Very strong proofs these that Pliny had seen this journal and copied from it, as he mentions nothing of Ozéne in his account of the voyage, and only catches Ozænítides here incidentally. See Salmastius, p. 1059, et seq. who is very copious on the subject, and has exhausted all that the ancients knew of this aromatick⁵⁷.

Ναύπλιος, p. 27. *Nauplius.*

It seems to be an inferior tortoise-shell from the context, which runs, ἡ χελώνη διάφορος μετὰ τῆς Ἰνδικῆν ἢ ναύπλιος ὀλίγος, i. e. tortoise-shell of superior kind, but not equal to the Indian; and a

⁵⁵ Salmastius, p. 1065, is clearly of opinion, that Pliny is regularly mistaken in applying folium to nard. He says it is always peculiar to malobathrum betel.

⁵⁶ Whether this in Pliny does not apply to costus?

⁵⁷ It resembles the tail of a small animal, in Dr. Burgeff's Collection.

small

small quantity of that species called nauplius. It may, however, be a different commodity, but I cannot trace it in Salmafius or Pliny, unless it be the shell of that fish he calls nauplius, lib. ix. c. 30. which seems a species of the nautilus.

Νῆμα Σηρικόν κ' Ἰνδικόν μέλαν.

Black sewing silk both Chinese and Indian. If this passage could be ascertained as rightly rendered, it would prove that the silk manufacture was introduced into India as early as the age of the Periplus. Νῆμα can hardly be applied to a web, it seems always to be thread, and here sewing silk. If indicon is the adjunct of nema there is no difficulty, but indicon melan may be indigo in the opinion of Salmafius.

O

Ὀβόνιον. Μυσλίη.

1st fort. Ἰνδικόν τὸ πλατύτερον ἢ λεγομένη Μοναχῆ.

Wide Indian muslins called monakhè.

2d fort. Σαγματογῆνη. Σαγματογίαι. Salm. reads Σαματοπήνη, from πηνίον, a thread. Salm. p. 1170.

Salmafius seems to interpret these two forts as muslins made up in single pieces, or many in a parcel; he is not satisfied, however, with his own interpretation; but it is to be observed, that the finest muslins still come to Europe made up in single pieces, called *book* muslins from their form. And it is by no means irrational to conceive that a custom of this sort is coeval with the trade.

Monakhè, single.

Sagmato-ginè, made up in parcels.

Sagmato-penè, made of a bulky thread, or so thick as to serve for coverlids. Salm. *ibid.*

3d. fort. *Χυδαῖον.*

Coarse mullins, or rather coarse cottons, called at present dungarees; Wilford, *As. Differt.* vol. ii. p. 233. to which monakhè is opposed as a finer fort.

Οἶνος. *Wine.*

1. *Λαοδικηνός.* Wine of Laodiceæ, but which city of that name does not appear. There is a Laodiceæ in Egypt.

2. *Ιταλικός.* Italian wine.

3. *Αραβικός.* Arabian wine. It is dubious whether palm wine or toddy wine, it seems to have been a great article of commerce.

Ἰμπερὶ Διισπολιτικῆ. *Unripe grapes of Diophysis.*

In what form this was an article of commerce does not appear, it is mentioned but once. Unripe grapes, however, are imported into England both from Lisbon and Madeira.

Ἰσπίτια, p. 27. *Awls or bodkins.*

An article in trade on the coast of Africa, as needles are at this day.

Ὀρέγχαλλος. Mountain brass.

Used for ornaments. Ramusio calls it white copper, copper from which the gold and silver has not been well separated in extracting it from the ore.

II

Παρθέναι εὐειδείς.

Handsome women slaves for the haram are mentioned as intended for presents to be sent up to the king of Guzerat, whose capital was Ozénè or Ougéin.

Πελύσια.

Small hatchets or axes for the African trade.

Πέπερι, Pepper.

Imported from the coast of Malabar, as it still is; the native term on the coast is pimpilim; Salm. p. 1070. or the Shantikreet, pipali. Af. Ref. vol. iv. p. 234. The pepper coast is called in Arabick beled-el-fulful. D'Anville, Ind. p. 118.

It was found by the Greeks from Egypt first in Ethiopia, as an article of commerce brought thither by the Arabs, but was known in Greece much earlier.

Two sorts are distinguished in the Periplus.

1. *Κοττοναρικόν.*

From Cottonara, the kingdom of Canara, according to Rennell, which is still the principal mart for pepper, or at least was so before

the English settled in Sumatra. This is the black pepper. See Marsden's Sumatra.

2. Μακρόν.

Long pepper²⁵, so called from its form being cylindrical, an inch and an half long. It consists of an assemblage of grains or seeds joined close together. It resembles the black pepper, but is more pungent. It is a species of the East India pepper totally distinct from the Cayenne.

Περιζώματα.

Girdles or sashes, and perhaps distinguished from the following article,

Πηχυσίαι αἰ ζῶναι.

Sashes of an ell long, only in the difference of make or ornament.

Πηνικόν.

Pearls or the pearl oyster. See the fishery at Cape Comorin.

Πορφύρεα διαφόρα κ' χυδαία, p. 35.

Purple cloth of two sorts, fine and ordinary. An article of trade at Moosa in Arabia.

Ποτήρια, *Drinking vessels,*

Χαλιὰ, *Brass,*

Στρογγύλα, *Round,*

Μεγάλα, *Large.*

²⁵ Tabaxir is the common long pepper.

Probably all three epithets apply to the same vessel. An article of import on the coast of Africa..

Πυρὸς ὀλίγος.

Wheat in small quantities, imported into Omana, or Oman in Arabia.

P

Ῥινόκερος. *Rhinoceros.*

The horn or the teeth, and possibly the skin, imported from the coast of Abyssinia, where Bruce found the hunting of this animal still a trade, which he has described in all of its branches, vol. iv.

Σ

Σάγγαρα.

Canoes used on the coast of Cochin for conveying the native commodities from the interior to the ports, and sometimes along the coast.

Σάγοι Ἀρσινωτικῶι γεγραμμένοι ἢ βεβαμμένοι, p. 14.

Rugs or cloaks made at Arfinoe (Suez), dyed, and with a full knap.

Σανδαράκη.

Red pigment, Salm. p. 1155. found in gold and silver mines. Pliny. Ore of Cinnabar. Dr. Burgefs.

Σάπφειρος. *Sapphire stone.*

The ancients distinguished two sorts of dark blue or purple, one of which was spotted⁵⁹ with gold. Salmaf. p. 130, et seq. Pliny says, it is never pellucid, which seems to make it a different stone from what is now called sapphire.

Σηρικὰ δέρματα. *Chinese hides or furs.*

What is meant by δέρματα no where appears, unless it can be applied to the τάρσυναι, whence the malobathrum was procured. But this is very dubious. See Μαλόβαθρον.

Σίδηρος. *Iron.*

An import into Abyssinia for the manufacture of spear heads, to hunt the elephant, rhinoceros, &c.⁶⁰

Ἰνδικός.

Iron tempered in India.

Σινδόνες.

Fine linen of any sort, but that imported into Abyssinia might be Egyptian, and possibly of cotton, but

Σινδόνες αἱ διαφοράταται Γαγγητικαί,

Can be nothing else but the finest Bengal muslins.

Σίτος. *Wheat corn.*

⁵⁹ Dr. Burgefs has specimens of both sorts, the one with gold spots like lapis lazuli, and not transparent.

⁶⁰ To cut like an Indian sword, is a common Arabick proverb in Arabia. And in

Egypt, Shaw (p. 364.) says, the hardest tools (as drills for working the granite Obelisks) were made of Indian iron. Shaw quotes the Periplus, but not perhaps justly.

Σκέπαραι. *Adzes.*

In contradistinction to πελύκια, hatchets.

Σπέη αργυρά. *Silver plate.*

Ἰαλά.

Vessels of chrystal, or glass in imitation of chrystal.

Σμύρα. *Myrrh,*

Διαφέρεσα τῆς ἄλλης,

Of a superior sort,

Ἐκλεκτή,

Of the best sort,

Στακτῆ. *Gum.*

Ἀσειριμναία, read Σμυρναία, by Bochart, Geog. Sac. ii. 22. Salm. 520. Extract or distillation from myrrh, of the finest sort. The reading is proved by Salmasius from a similar error in an inedited epigram.

Στήμι. Στίμι.

Stibium for tinging the eyelids black.

Στολάι Ἀρσινοητικάι.

Women's robes manufactured at Arsinoè or Suez.

Στύραξ. *Storax.*

One of the most agreeable of the odoriferous resins. There are two sorts, storax in the tear, supposed to answer to the ancient styrax calamita, from its being brought in a hollow reed, or its distillation from it; and common storax, answering to the stacte styrax⁶¹ of the ancients. It now grows in the neighbourhood of Rome; but the drug was anciently brought thither from the islands in the Archipelago. See Salm. p. 1026. Chambers in voce. Most of these gums, resins, and balsams have in modern practice yielded to the American, as this seems to have given way to the balsam of Tolu.

Σκῆματα, p. 15.

Slaves from Africa, an ancient trade! but the number was not great.

Υ

Ἰάκινθος.

The hyacinth or jacinth, a gem of a violet colour. But Salmasius says it is the ruby, p. 1107. See Solinus, c. xxx. p. 57. where it seems to be the amethyst.

Χ

Χαλκός. *Brass or copper.*

⁶¹ Strabo mentions styrax in Pisidia; a distillation from a tree, caused by a worm breeding in it. Lib. xii. p. 570.

Καλιερρήματα.

Vessels of brass, or any sort of brazier's work.

Χελώνη.

Tortoise-shell seems to have formed a great article of commerce, for ornaments of furniture, as beds, tables, doors, &c. both in Italy, Greece, and Egypt. It was brought from the coasts of Africa, near Moondus; Socotra, Gadrofia, Malabar, and the Lackdive, or Maldive islands; the former seem to be designed by *χρυσιοιήσοι* of the Periplūs.

Χιτῶνες.

Under garments, imported from Egypt into Africa.

Χρῆμα. *Specie.*

The Periplūs is very accurate in noting the ports where it was necessary to trade with specie; and in more instances than one, notes the advantage of exchange.

Χρυσόλιθος. *Chrysolite.*

Sometimes the same as chrysites, the touchstone for gold, Salm. p. 1103; but described as a stone as it were sprinkled with spots of gold, Salmasius, p. 407. who points out what it is not, but cannot determine what it is. It may well be the topaz⁶².

Χρυσῶν,

Used with *θηνάριον*, as is *αργυρῶν* also, expressing gold and silver denarii.

Χρυσάματα, *Gold plate.*

⁶² The Bohemian is yellow with a greenish nut, the Oriental is very pale yellow. Dr. Burgefs's Oriental topaz deep yellow.

No. II.

An ACCOUNT of the ADULITICK INSCRIPTION collected from CHISHULL, MONTEFAUCON, MELCHISEDECK THEVENOT, and other AUTHORS.

THE Adulitick Inscription is in itself one of the most curious monuments of antiquity, but the preservation of it, and the knowledge which we have of it at this day, are still more extraordinary than the inscription itself. Cosmas (styled Indicopleustes, from the supposition that he had navigated the Indian Ocean, which in truth he had not,) copied a Greek inscription at Adûlè, which has since appeared to relate to Ptolemy Euergetes, and to prove that he had nearly conquered the whole empire of the Sclucidæ in Asia, and the kingdom of Abyssinia in Africa: two historical facts of considerable importance; notwithstanding, his success in Asia was scarcely discovered in history, till this monument prompted the inquiry, and the conquest of Abyssinia still rests upon this evidence alone.

The veracity of Cosmas, in his report of this inscription, is established upon proofs which have nearly united all suffrages in its favour; some obscurity there still remains, and some few objections naturally arise, to which Chishull has given a sufficient answer. But there is one observation of his that is irrefragable, when he

* It does not now appear in any history to the extent that the marble assumes, or in any one author that I can discover, except a single sentence cited out of Polyxenus by Bayer. See *infra*.

says that Cosmas himself did not know² to which of the Ptolemies it belonged, and consequently he could not be the forger of particulars which accorded with one, and one only of the whole Dynasty.

The work of Cosmas is styled *Topographia Christiana*, and is intended to prove that the earth is a plane, in opposition to the philosophical notion of its being a sphere, which the author conceived to be an heretical opinion, contrary to the revelation of the scriptures. He had himself travelled much, and in the parts he visited, he still found they were all on a plane, as well as Greece; in consequence of this notion, his deductions are rather extraordinary; but the facts he relates, and the countries he describes, are given with all the marks of veracity that simplicity can afford.

There *were*³ two copies of his work, one in the Vatican, supposed to be of the ninth century, and another at Florence in the Library of Lorenzo⁴, attributed to the tenth. In 1632, Leo Allatius published the Adulitick Inscription from the copy in the Vatican⁵; and this was republished by Berkelius in 1672, and again by Spon in 1685, both from the extract of Allatius. The same inscription was again published by Melchizedeck Thevenot, in his Collection of Voyages, from the Florentine copy, extracted by Bigot. And finally the whole *Topographia Christiana* was edited by the indefatigable B. Montfaucon⁶ in 1706. Spanheim, Vossius, and Vaillant, all bear testimony to the authenticity of the inscription,

² He certainly likewise did not know the geography he details, and therefore he could not forge it. See *Leukè Kamè*, a place on the Arabian side of the gulph, which he confounds with *Leukogen* on the Ethiopick side, in his own remarks on the marble.

³ *Were*, we say, because after the irruption

of the Vandals of 1798, who can say they *are*?

⁴ See the account of this library in Roscoe's *Life of Lorenzo*.

⁵ Chiffault.

⁶ The publication is styled *Nova Collectio Patrum*, in two vols. folio, Paris 1706.

and the internal evidence is such as hardly to leave a doubt upon an unprejudiced mind. Let us now hear Cosmas speak for himself.

Extract from the 'Topographia Christiana' of Cosmas, written
A. D. 545, p. 140. ed. Montfaucon.

Adûlè is a city of Ethiopia, and the port of communication with Axiômis⁷, and the whole nation, of which that city is the capital; in this port we carry on our trade from Alexandria and the Elanitic Gulph⁸; the town itself is about two miles from the shore, and as you enter¹⁰ it on the western side, by the road that leads from Axiômis, there is still remaining a chair or throne which appertained to one of the Ptolemies, who had subjected this country to his authority. This chair is of beautiful white marble¹¹, not-[so white indeed as the] Pro-connessian¹², but such as we employ for marble

⁷ After the peace made with Seleucus for ten years, and renewed afterwards for ten years more. scarce a word occurs in history concerning Ptol. Evergetes, till this account on the marble was discovered by Cosmas more than 700 years after the invasion of Ethiopia by this monarch. CHISHULL.

⁸ Written in different authors Axama, Axoma, Axioma, and Axiomis.

⁹ The trade of Solomon and Hiram was carried on from Ezion Geber, at the head of the Elanitic Gulph. And in all ages, I imagine Ela, Aila, or Ailath, to have been the mart to which the Phenicians of Tyre resorted, or to Phenicon, which perhaps took its name from them. Ela and Phenicon may at different times have been in the possession of Nabatheans, Petreans, Egyptians, Tyrians, Hebrews, or Romans.

¹⁰ See the view of Adûlè in Cosmas's draw-

ing, in which both pyramids and obelisks appear; mean as the execution is, these are a certain proof that the manners and customs of Abyssinia in that age were Ethiopick and Egyptian. Bruce found the same at Axûma, and if he could have stopped at Meroè to examine the ruins he there passed, assuredly they would have been Egyptian also or Ethiopick. He saw no remains of ruins from Axûma to Meroè.

¹¹ Δουμανία, valuable, costly.

¹² The island of Proconessus in the Propontis naturally supplied Constantinople with marble, with which it so much abounded, as to change its name to Marmora, and to give that title to the Propontis, now called the Sea of Marmora. A monk of Constantinople of course referred to the marble with which he was most acquainted. The church of Santa Sophia is built with Proconnessian marble.

tables;

tables; it stands on a quadrangular base, and rests at the four corners on four slender and elegant pillars¹³, with a fifth in the centre, which is channeled in a spiral form. On these pillars the seat is supported, as well as the back of the throne, and the two sides on the right and left.

The whole chair with its base, the five pillars, the seat, the back, and the two sides, is of one entire piece, carved into this form; in height about two cubits and a half, and in shape like a bishop's throne¹⁴.

At the back of the chair is a tablet of basanite [or touch] stone¹⁵, three cubits in height, the face¹⁶ of which is an [oblong] square, while the whole mass is in the form of a lambda, rising to a point at the top, and spreading at the bottom, Λ . But the front¹⁷ is quadrangular. This tablet is now fallen behind the chair, and the lower part of it is broken and destroyed, but the whole of this [stone or] marble and the chair itself is [in a manner covered over and] filled with Greek characters.

¹³ ἄνω ἰσθμῶν .

¹⁴ Cathedra.

¹⁵ Basanites is supposed to be an Egyptian marble or granite, and the name also to be Egyptian, and not Greek from $\beta\acute{\alpha}\sigma\alpha\iota\tau\eta\varsigma$, as it is usually esteemed. See Chambers's Dictionary, art. touchstone. The Greek term $\beta\acute{\alpha}\sigma\alpha\iota\tau\eta\varsigma$, might possibly be derived from Egypt, the country where the touchstone was procured. But it is perfectly Greek in its usage and derivation.

¹⁶ $\text{τετραγώνου ἢ λωδοῦ}$. I render this literally, but not correctly. Clifhill writes, ad modum tabulae pictoriae, but how $\lambda\omega\delta\acute{o}\varsigma$ has that sense I cannot determine. I suppose this basanite stone or marble to be in the form of a wedge,

square [an oblong square] on the broad face, and like a Λ on the sides, the broad superficies is so represented in the drawing of Cosmas, an oblong square broken at the corner, the channelling of this tablet is represented as carried round the broken corner, whether this is the error of Cosmas or the engraver must be determined by the MSS.

¹⁷ Σῆμα , body, the whole body or mass of a marble in the form of a lambda cannot be a square, but a wedge; it is one of the faces of this wedge which must be meant, and even this would not be a square, but quadrangular (τετραγώνου), as represented in the drawing of Cosmas, that is a parallelogram.

Now it so happened that when I was in this part of the country, about five and twenty years ago¹⁸, more or less, in the beginning of the reign of Justin the Roman emperor, that Elefbaan¹⁹ the king of Axiomites, when he was preparing for an expedition against the Homerites²⁰ [in Arabia] on the other side of the Red Sea, wrote to the governor of Adûlè, directing him to take a copy of the inscrip-

¹⁸ The reign of Justin commences in 518. The expedition of Elefbaas is usually placed in 525, the eighth year of Justin, but the marble might have been copied a year or two years before the expedition.

¹⁹ It is a most remarkable circumstance, that in a history so obscure and wild as that of Abyssinia, any fact should be established upon such clear and satisfactory grounds, as this of the reign of Elefbaas and his expedition into Arabia. But the authorities adduced by Baronius, Montfaucon, Ludolfus, Chishull, and Bruce are so express, that there cannot remain a doubt; and if that reign is established, the veracity of Cosmas needs no other support. Now it appears from the evidence they have adduced, that the sovereigns of Abyssinia, in the reign of Justin, about the year 525, had extended their power into the country of the Homerites, which is a district of Sabæa, where they had a governor residing; it appears also that some Abyssinians had been put to death by Dunaanas, one of the native chiefs in Arabia, and a Jew, who are still considered as martyrs to their faith, and that Elefbaas undertook an expedition into Arabia, in which he was successful, and punished the assassin of his subjects. His Abyssinian title was Caleb el Atsela, or Caleb the *Blessed*; whence the Greek corruption of Elefbaas, Elefbaas, and Elefbaan (Bruce, vol. i. p. 503. Ludolf, p. 165. Hist. of Ethiopia). Bruce assures

us, that this history is confirmed by the Chronicle of Axûma, and Montfaucon cites Nonnosus in Photius, whose testimony corroborates the chronicle in the amplest manner, (Montfaucon Nova Collectio Patrum, tom. ii. p. 140.) for Nonnosus speaks of himself as ambassador from Justin to Kaius, an Arab prince of the Khindini and Masadèni, and to Elefbaas king of Axûma, agreeing so much both in time and name with the Elefbaas of Cosmas, that it induces a conjecture that Cosmas was a monk in the suite of the ambassador (see Photius, p. 6. ed. Geneva, 1612, with the citation of Nicephorus in the margin). But without taking this into the consideration, it is a natural consequence, if Elefbaas is proved to be the king of Axûma in that age, that the account of Cosmas is worthy of credit. Bruce adds, that Mahomet in the Koran mentions Dunaanas, not by name, but as master of the *fiery pit*, alluding to the martyrs who were burnt (vol. i. p. 516.). Other authors cited by Montfaucon are Metaphrastus, Callistus, Abûlpharag.

²⁰ Cosmas himself, in another part, describes the country of the Homerites as lying on the coast of Aden beyond the straits; but as they occupy the angle of the continent, their territory may extend both within and without the straits. See Ptolemy, Asia, tab. vi.

tion²¹, which was both on the chair of Ptolemy, and on the tablet, and to send it to him [at Axiômis].

The governour, whose name was Albas²², applied to me and to a merchant of the name of Menas, to copy the inscription; Menas was [a Greek of my acquaintance, who afterwards became] a monk at Raithû, and died there not long ago. We [undertook the business together, and having completed it,] delivered one copy to the governour, and kept another for ourselves. It is from this copy that I now state the particulars of the inscription, and I ought to add, that in putting them together [and drawing my own conclusions from them,] I have found them very useful for forming a judgment of the country, the inhabitants, and the distances of the respective places. I ought to mention also that we found the figures of Hercules and Mercury among the carvings, at the back of the seat²³.

This is the form of the seat²⁴ and the marble. And Ptolemy himself [seems to speak in the words of the inscription].

(Here

²¹ It is highly probable, that Elefbaan understood the language, as he was a christian, and of the church of Alexandria. His intercourse also with the Greek emperor at Constantinople strengthens this supposition. And in the earlier age of the Periplus we find Zôfkales master of that language.

²² Albas and El-Albas must be the same name, and there is nothing extraordinary in supposing that both the king and the governour might both assume the title, *atseba*, *the blessed*, *the saint*.

²³ I have here omitted a conjecture of the monk foreign to the subject.

²⁴ Cosmas says, that malefactors were executed before this chair in his time; but whether it was a custom continued from the time of Ptolemy he could not say. Bruce mentions a stone at Axûma existing still, on which the kings of Abyssinia were enthroned and crowned, and which likewise had an inscription with the name of Ptolemy Evergetes. Had either of these facts any concern with a tradition or custom derived from Ptolemy? See Bruce,

(Here was inserted a drawing by Cosmas himself represented in the opposite plate, and copied from the MS. by Montfaucon.)

Inscription upon the figure or square table in the form of a Λ.

Ptolemy the Great, king, son²⁵ of Ptolemy, king, and Arsinoë, queen, gods²⁶, brother and sister²⁷; grandson of the two sovereigns Ptolemy, king, and Berenicè, queen, gods preservers²⁸; descended

vol. iii. p. 132. It is extraordinary that the marble does not mention Αξύμα; and more so, if upon the credit of Bruce we conclude, that Ptolemy visited Αξύμα in person. That indeed does not quite follow from the stone being found there with his name. But one inference we may make in Cosmas's favour, he knew Αξύμα, he knew it was the capital of the country; if he had forged the inscription, Αξύμα would doubtless have been admitted.

²⁵ This genealogy at the commencement does not quite agree with another at the conclusion, where the king says, that Mars was the father *who begat him* (ὁ γὰρ καὶ ἰσχυροί). But as these Macedonian sovereigns imitated Alexander in his vanity, if they would have gods for their ancestors, it is not to be thought strange, that their genealogy should fluctuate. I think the inconsistency due to the vanity of the king, and that it ought not to be attributed to the mistake of Cosmas, or to his lapse of memory.

²⁶ In the character of ΘΕΩΝ ΑΔΕΛΦΩΝ, gods, brother and sister, and ΘΕΩΝ ΣΩΤΗΡΩΝ, gods preservers, we have one of the most illustrious proofs of the authenticity of the inscription.

Beger had objected that on the coins of Ptolemy Sôter and Berenicè, ΘΕΩΝ only was found; and on those of Philadelphus and Arsinoë, ΑΔΕΛΦΩΝ only. But soon after the

objection was started, two gold coins were brought to light with the united heads of Ptolemy Sôter and Berenicè, of Philadelphus and Arsinoë. The former had no inscription, but the latter displayed the ΘΕΩΝ ΑΔΕΛΦΩΝ, exactly corresponding with the Adelittick marble. Vaillant, Hist. Ptol. Regum, p. 52. ΣΩΤΗΡΩΝ was not found, but an equivalent is cited from Theocritus Idyl. 17.

Μεγάλῃ Πύλῃ καὶ πάλῃ Διῶναι ἵερον νειῖ,
 Ἐν δ' ἀνὰ τῆς χροῦσῶς περιπαλλίας ἢ δὲ ἰσχυροί
 Ἰδύουσι, πάντες αὖτε ἰσχυροί αὖτε ΑΡΓΩΤΕΣ.

In which they are evidently consecrated as deities with the title of ΑΡΓΩΤΕΣ. Chifbull.

A second objection of Beger's was, that Philadelphus had no children by Arsinoë his wife and sister. But the Scholiast on Theocritus Idyl. 17. fortunately furnished an answer to this also, who says that Ptolemy Philadelphus was first married to Arsinoë, daughter of Lysimachus, by whom he had Ptolemy, (afterwards called Euergetes,) Lysimachus and Berenicè. But that having discovered this Arsinoë engaged in some conspiracy, he banished her to Coptus, and then married his sister Arsinoë, and adopted as her children those he had had by the other Arsinoë. This Arsinoë, his sister, was worshipped by the Egyptians under the title of Diva Soror, and Venus Zephyritis. Chifbull.

²⁷ ΘΕΩΝ ΑΔΕΛΦΩΝ.

²⁸ ΘΕΩΝ ΣΩΤΗΡΩΝ.

on the father's side from Hercules son of Jupiter, and on the mother's side from Dionysus son of Jupiter, [that is, Ptolemy son of Ptolemy and Arsinoë, grandson of Ptolemy and Berenicè,] receiving from his father the kingdom of Egypt, Africa, Syria, Phœnicia, Cyprus, Lycia, Caria, and the Cyclades, invaded Asia with his land and sea forces, and with elephants from the country of the Troglodytes and Ethiopians. This body of elephants²⁹ was first collected out of these countries by his father and himself, and brought into Egypt and tamed for the service of war. With these forces Ptolemy advancing into Asia³⁰ reduced all the country on this side the Euphrates, as well as Cilicia, the Hellespont, Thrace, and all the forces in those provinces. In this expedition, having captured also many Indian elephants, and subjected all the princes to his obedience, he crossed the Euphrates, entered Mesopotamia, Babylonia, Susiana³¹, Persis, Media, and the whole country as far as

²⁹ A fact noticed by all the historians, and preserved by Agatharchides, as almost the only commerce remaining on this coast in the time of Philomëtor.

³⁰ So very little of this conquest appears in history, that, having this inscription only in Thevenot's work, I had doubted the whole, till I met by accident with the passage in Appian, which confirmed the fact, and again attracted my attention; but having afterwards procured Cluissull's work, (*Antiquitates Asiaticæ*;) I found he had anticipated this passage, and many of the other observations which I had taken some pains to collect. See *Ap. Syriac.* p. 635. Schweighæusser's ed. St. Jerom on Daniel mentions these conquests; and Appian notices that the Parthian revolt commenced upon the distress of the Syrian monarchs in this war.

³¹ Rollin touches on this expedition of Ptolemy, but makes it stop at the Tigris, vol. vii. p. 307. but Ptolemy here expressly says he entered Susiana, and as Rollin confesses the restoration of two thousand five hundred Egyptian statues we may ask, where could they be found except at Susa? The cause of this invasion was the insult offered to Berenicè, sister of Euergetes, whom Antiochus Theos had divorced. and whom Seleucus, his son by Antioch, finally put to death. See Justin, lib. xxvii. c. 1. Justin mentions that he would have subdued the whole kingdom of Seleucus, unless he had been recalled by disturbances in Egypt. The two thousand five hundred statues, and forty thousand talents, I find in the notes on Justin, but whence deduced I know not.

Bactria²², and brought the whole under his dominion. [In Persia and Susiana] he collected all the spoils of the temples which had been carried out of Egypt by [Cambyses and] the Persians, and conveyed them back again to that country²³, with all the treasures he had accumulated in his conquests, and all the forces which had attended him on the expedition; all these he embarked upon the canals²⁴ * * * * *

²² Ptolemæus Euergetes devicit Seleucum; omnia sine bello et certamine occupavit a Tauris usque in Indiam; Bayer, p. 61. Bayer moderates the conquest, and appeals to Theophrastus and the Adulitic marble. But the marble certainly confirms in a great degree the citation; which is from Polyænus.

²³ It is for this favour to the natives that he is said to have been styled Euergetes, the benefactor.

²⁴ The inscription is here manifestly left imperfect, and that apparently on account of that part of the tablet which was mutilated. We are therefore at liberty to conjecture what these canals were, consistent with the nature of the countries alluded to. Chishull looks to the canals on the Euphrates; but let us reflect, that the palace of Cambyses was at Susa; thither the spoils of Egypt were sent by the conqueror, and there they would be found by Euergetes, if they had not been removed by the Macedonians, or the kings of Syria. Much notice is taken in history of the treasures at Susa being plundered; but the spoils of temples, Egyptian gods and statues had little to tempt the avarice of the conquerors, and would have been moved to little purpose, at a great expence. It is highly probable, therefore, that Euergetes found them still at Susa; and if we consider that Susiana was of all the provinces of the Persian

empire, the one most furnished with, and most intersected by canals, we shall have no difficulty in concluding, that these cumbersome deities were embarked upon that canal which united the Eulæus with the Meserian near Susa; and that they were brought by this stream, now called the Susib or Soweb, into the Euphrates near Korna. From Korna they would be conveyed up the Euphrates to Thapsacus, or higher, and require no other land carriage but from that point to the bay of Illus. This would certainly be the best and least expensive conveyance from Susa to Egypt, and there could be no other water carriage unless by the Eulæus to the Gulph of Persia, and so round the continent of Arabia into the Red Sea. If it could be proved from history that the fleets of Euergetes had ever circumnavigated Arabia, we might admit this as the readiest mode of conveyance; but I have searched history in vain to establish this conclusion. If it was contained in the point of the tablet broken, we have much reason to lament the loss; for so persuaded am I of the authenticity of the inscription, that I should admit the fact without hesitation, if found there. I can only now add, that the canal from Susa to the Euphrates, and the carriage thence up to Thapsacus, afford the most probable clue to this passage.

This, says Cosmas, was the inscription on the figure or tablet, as far as we could read it, and it was nearly the whole, for only a small part was broken off. After that we copied what was written on the chair, which was connected with the inscription already given, and ran thus :

After this, having with a strong hand compelled the tribes bordering upon my own kingdom to live in peace, I made³⁵ war upon the following nations³⁶, and after several battles reduced them to subjection.

³⁵ Mark the use of the first person. Whether the change from the third person to the first be caused by Cosmas or the inscription, must be doubtful. We might well suppose both inscriptions to run in the first.

³⁶ Cosmas has many curious particulars of these countries himself; as, 1st. The Homerites are not far distant from the coast of Barbaria [Adel]; the sea between them is two days' sail across. This proves that he places the Homerites somewhere east of Aden on the ocean.

2. Beyond Barbaria [Adel] the ocean is called Zingium [Zauzibar the Caffre coast], and Salsus is a place on the sea coast in that tract. This sea also washes the incense country [Adel and Adea], and the country where the gold mines are.

3. The king of Axiomis sends proper persons there by means of the governor of the Agows to traffick for gold. Many merchants join this caravan, and carry oxen, salt, and iron, which they exchange for gold. They leave these articles and retire,—when the natives come and leave as much gold as they chuse to offer. If this is thought sufficient, on their return they take the gold and leave the articles.

This is a very extraordinary passage, as it proves that the Abyssinians traded in that age, as they still do, not by sea, but inland through their southern provinces. And the exchange is similar to modern practice, both on the borders of Abyssinia, and other tribes of Africa. Montf.

4. The winter [that is the rainy season,] in Ethiopia is in our summer; the rains last for three months from Epiphi to Thoth, so as to fill all the rivers and form others, which empty themselves into the Nile. Part of these circumstances I have seen myself, and others I have heard from the merchants who trade in the country.

5. The great number of slaves procured by all the merchants who trade in this country; a trade noticed equally by the Periplus near 500 hundred years before Cosmas, and by Bruce 1200 years after his age. It is worthy of remark that Abyssinian slaves bear the first price in all the markets of the east, and the preference seems to have been the same in all ages. Montfaucon, tom. ii. p. 144. Novæ Col. Patrum.

First the nation of Gazè, next Agamè and Siguè. These I subdued, and exacted the half of their property by way of contribution for my own use³⁷.

After these I reduced Ava and Tiamo or Tziamo, Gambela and the country round it, Zingabènè, Angabè, Tiama, and the Athagai, Kalaa, and Semènè, (a nation³⁸ beyond the Nile,) among mountains difficult of access, and covered with snow; in all this region there is hail and frost, and snow³⁹ so deep that the troops sunk up to their knees. I passed the Nile to attack these nations, and subdued them.

I next marched against Láfinè and Zaa and Gábala, tribes which inhabit mountains abounding with warm springs; Atalmo also and Bega, these likewise I reduced, and all the nations in their neighbourhood.

After this I proceeded against the Tangaítæ⁴⁰, who lie towards the confines of Egypt; these I reduced, and compelled them to open a road of communication from this country into Egypt. The next tribes I subdued were Anninè and Metinè, who were seated upon mountains almost perpendicular; and Sesea, a tribe which had

³⁷ Ἄλλ' ἄνευχο πάντα δέουσαν. Hom. x. p. 120. The Homeric custom of taking half and leaving half.

³⁸ Λίγυς ἔστιν τὸ πῖλον τῆς Νίλου, which Montfaucon reads in a parenthesis, as no part of the inscription, but as an observation by Cosmas. But the fact is true, Samen is beyond the Tacazzè.

³⁹ Bruce utterly denies the existence of snow in Abyssinia; but it does not quite follow from this that snow was unknown in former ages. Horace says. Soracte stat nive candida, but the moderns observe this now never happens. Lobo asserts that snow falls in Samen

on Samenè, but in very small quantities, and never lies, p. 578. Fr. ed. Bruce calls Lobo a liar, but in many instances not without manifest injustice. He allows himself that Samen is a ridge eighty miles in extent; the highest part is the Jews' rock, where there was a kingdom of Jews till within these few years.

⁴⁰ If it were possible to identify this tribe with Dangola, it would be a great acquisition to geography. Dangola lies exactly in the proper place, as may be seen by Bruce's map.

retired to a mountain absolutely inaccessible to an army; but I surrounded the whole mountain, and sat down before it, till I compelled them to surrender; I then selected the best of their young men, their women, their sons and daughters, and seized all their property for my own use.

My next attempt was upon Rauso, an inland tribe in the frankincense country, a region without mountains or water; [from this tract I penetrated again to the coast, where] I found the Solatè, whom I subdued, and gave them in charge to guard the coast [from pirates].

All these nations, protected as they were by mountains almost impregnable, I subdued, and restored their territories to them upon conditions, and made them tributary; other tribes submitted also of their own accord, and paid tribute upon the same terms.

Besides the completion of this, I sent a fleet and land forces against the Arabites⁴¹, and the city of Kinedópolis on the other side of the Red Sea; I reduced both to pay tribute, and gave them in charge to maintain the roads free from robbers, and the sea from pirates⁴², subduing the whole coast from Leukè Komè to Sabèa. In the accomplishment of this business I [had no example to follow, either of the ancient kings of Egypt, or of my own family, but] was the first to conceive the design, and to carry it into execution.

⁴¹ Arabians.

⁴² The coast of Arabia, north of Yambo, has been notorious for pirates and robbers in all ages. Leukè Komè, or the White Village, we shall fix when we come to the coast of Arabia in the third book; it cannot be far from Yambo; and the coast from this village to Sabèa or Yemen was the seat of all the

trade from Egypt, both for native and Indian commodities, till the Romans were masters of Egypt. The Romans had a garrison in Leukè Komè, and a custom-house, where they levied 25 per cent. on all goods. See Periplús Maris Eryth. p. 11. Hudf. Leukè Komè seems, in the time of Cosmas, to have fallen into obscurity.

For my success in this undertaking I now return my thanks to Mars, who⁴³ is my father, and by whose assistance I reduced all the nations from [Bactria on] the north, to the Incense coast on the south; and from Libya. [on the west,] to Ethiopia and Safus⁴⁴ on the east. Some of these expeditions I entrusted to my officers; but in most of them I was present, and commanded in person.

Thus having reduced the whole world⁴⁵ to peace under my own authority, I came down to Adulè, and sacrificed to Jupiter, to Mars, and to Neptune, imploring his protection for all that navigate⁴⁶ [these seas].

⁴³ *Ὁς με καὶ γέννησεν, the father who begot me.* It is a remarkable expression. He has already said he was the son of Ptolemy and Arsinoë, descended from Hercules and Dionysus, and now Mars is his immediate father. Whatever vanity there may be in the sovereigns, or flattery in the subjects, there is still something analogous in these Macedonian genealogies. Alexander is not the son of Philip, but of Jupiter Ammon. His courtiers, and the family of his courtiers, follow the example of their monarch. They are gods and sons of gods, *οἱ αὖτε θεοὶ, οἱ αὖτε υἱοὶ θεῶν.* The presumption is rather peculiar, for we may say to every one of them, *Matris adulterio patrem petis.*

⁴⁴ From Abyssinia to the Bay of Zeyla. Safus is manifestly a place on the coast of Adul.

⁴⁵ The whole world is assumed by many conquerors for the world around them. Alexander and the Romans did not conquer the whole world, but used the same language.

⁴⁶ *Ἐπιπέσει τῶν πλοηγομένων.*

It appears fully from this passage that Euergetes engaged in this expedition on the plan of his father Philadelphus, for the extension and protection of commerce, and that

he avowed the whole coast on both sides the Red Sea, making them at least tributary, if not a part of his kingdom: but it no where appears that he passed the Straits of Bab-el-Mandeb. Though he visited the Mosyllitic marts, his approach to them was not by sea, but through the interior of Abyssinia and Adul, as appears by his march from Kaulò to Solatè, which must be on the coast, from his giving it in charge to the natives to preserve the peace of the sea. The execution of these designs, with the opening a communication inland from Abyssinia to Syênè, marks the grandness and wisdom of his system, as clearly as if we had a history of his reign, and a detail of his expeditions. Of the latter there is not a trace remaining but this monument. It is still more extraordinary, that in less than seventy years all the notice of this expedition should have sunk into silence, and that Agatharchides should say nothing of this plan, but so far as relates to the elephants procured at Ptolemæis Thérôn. Can this be adduced as an argument against the reality of the marble? I think not; and I trust it to its internal evidence.

But if the authenticity of the marble be allowed, what light does it not throw on the boasted:

feas^l. Here also [at Adulè] I reunited all my forces, [which had been employed on both coasts of the Red Sea,] and sitting on this throne, in this place, I consecrated it to Mars, in the twenty-seventh year of my reign⁴⁷.

Abyssinian names of Places in the Inscription. Consult Bruce's Map. vol. v. and Ludolfus, p. 14.

Gaza. Geez? but dubious, as it is one of the places first mentioned, and Geez is very far inland; Montfaucon. Pliny's Gaza near Mofyllon is noticed by Chishull; but these places in the commencement seem all between the coast and the Tacazzè, or its neighbourhood.

boasted discoveries of the Ptolemies? It proves, that whatever might be the progress of Timosthenes down the coast of Africa in the reign of Philadelphus, that no commerce was established upon it in the reign of his son. It proves that the Greeks of Egypt did not yet trade beyond the straits, or on the Mofyllitick coast, though they meditated the attempt. It proves that they did not yet go to Aden, but traded to Yemen within the straits; and that one object of this expedition was to clear the Arabian coast of pirates, from Leukè Komè to Sabèa: that is, from the top of the Gulph to the bottom. In the whole account not a word escapes that implies a trade with the marts of Arabia on the ocean beyond the straits, nor does it afford any reason to believe that the continent of Arabia was yet circumnavigated, or the discoveries of the Ptolemies brought in contact with those of Alexander.

This has been my inducement for introducing this marble to the knowledge of the reader, agreeably to my design of tracing the discoveries of the ancients step by step; and I conclude this account with remarking, that commerce rather fell short than proceeded in the following reigns; for it stopped at Sabèa on the Arabian side, as it does in this marble, and on the African side it did not go so low in the reign of Philometor as in that of Euergetes.

⁴⁷ Chronologers assign 26 years to the reign of Euergetes. But if a king commenced his reign in June, for instance, and died in October, it might be 26 years in a chronicle, and yet the 27th would have commenced. Chishull supposes this to be the fact. Dodwell supposes Euergetes to have been crowned during his father's life time; and we add, that an error (if it is such) in numbers may be more readily imputed to a MS. than made to impeach the marble.

Agamè.

Agamè. A government in Tigrè; Montf. Ludolf. p. 17. Agam signifies Jeffamine; Bruce.

Siguè. Bruce mentions Zaguè as a province, vol. ii. p. 534. else it might be thought Tigrè, from the places mentioned with it; or Siguè for Sirè; Συγυή, Σιγυή.

Ava. The province between Adulè and Axuma. Nonnosus; Chishull. Axuma is in the province of Tigrè. Ava is still found as a district of Tigrè.

Tiamo or Tziamo. Tzama a government of Tigrè near Agame; Montfaucon. It seems to be the kingdom of Damot. But there is a Tzama in Begemder; Ludolf. p. 14.

Gambèla, Gám-bela. There is a Gaba noticed by Ludolf, but nothing to mark its relation to Gám-bela.

Zingabènè. The country of the Zangues, Zinguis, or Caffres.

Angabè, read Anga-bènè. The kingdom of Angot.

Tiama. Tiamaa, Vatican MS. Tigrè-mahon! a mere conjecture. But Mahon, Macuonen, signifies a governor or government; Ludolf. p. 20. It is idle to search for an equivalent, as it is possibly only a repetition of Tiamo.

Ath-agai, Agoa; Montf. Agows; Bruce.

Kalaa. Nothing occurs but the mention of it with Semènè.

Semènè, Samen, Semen. Montf. The Tacazze is the boundary between Samen and Sirè; Bruce, iii. p. 252. The snow mentioned in

in the Inscription is denied by Bruce, but the mountains, eighty miles in length, are acknowledged by him; *Ibid.* And the Inscription mentions passing the Nile (Tacazzè) to Semêne.

Lafinè. Still so called; Cosmas; Lafta.

Zaa. Still so called; Cosmas. Xoa, Shoa, or Sewa; Ludolf.

Gabala. Still so called; Cosmas. There is a kingdom of Bali in Ludolph, p. 14. and a Gaba, p. 15. but nothing certain.

At-almo. Lamalmon the great mountain. At, seems to be an article or prefix, as in Ath-agai.

Bega. Beja and Begemder are still two provinces of Abyssinia.

Tangaitæ. Vossius reads Pangaitæ, in order to prove that Panchaia the Frankincense country is not in Arabia but Africa; *Vof. ad Pomp. Mel. lib. iii. c. 8.* Chishull. But the Tangaitæ are a tribe between Abyssinia and Egypt, i. e. at Sennaar, Dongola, or Meroè, most probably at Sennaar or Dongola. Dongola is written Dangola, not unlike Tanga. But whether Dangola is an ancient name I cannot discover.

Metinè, Anninè. Nothing occurs to ascertain these places. The Inscription passes from the northern frontier of Abyssinia to the southern with these names between, noticing only that they are mountainous.

Sésea. Barbaria, coast of Adel; Cosmas. Apparently on the mountains which divide Adel from Abyssinia. See Bruce, vol. iii. p. 250.

Raufo. Barbaria; Cosm. According to the Inscription itself it is inland from the frankincense coast of Barbaria (Adel), and Solatè is on the coast.

Solatè. Barbaria; Cosm. These three places correspond in number with the three on the Mofyllitick coast mentioned in the Periplus. The modern maps have a Soel.

Arabites. Homerites; Cosmas. But Cosmas is in an error. The Homerites are on the ocean; these are the Arab tribes on the coast of the Red Sea opposite to Suakem and Abyssinia, as appears by the Inscription.

Kinèdópolis. Homerites; Cosmas. But Cosmas is mistaken. It lies on the coast of Arabia not far from Yambo, between Leukè Komè and Sabèa, agreeably to the Inscription itself. See Ptolemy, Asia; tab. vi.

Pirate Coast. Not noticed as such, but their piracies marked. Probably the Nabathèans or wild tribes above Yambo, always pirates, and subdued by the later Ptolemies and by the Romans. They are pirates at this day.

Leukè Komè. Leukogen, in the country of the Blemmyes; Cosmas. Another proof that Cosmas could not be a forger, for Leukè Komè is in Arabia, above Jidda, and he places it in Ethiopia. It is the Hawr of d'Anville.

Sabêa. The Homerites; Cosmas. But really Yemen, the Arabia Felix of the ancients.

Safus. At the extremity of Ethiopia where gold called Tancharas is obtained. It lies upon the same ocean as Barbaria (Adel), where frankincense is procured; Cosmas. By Ethiopia he means Abyfinia, and Safus must be near Zeyla.

Adûlè. The port of Abyfinia in the Bay of Mafualh.

No. III.

EITENHAIOMMENOTΘEΣIAC.

THE readings of this extraordinary polysyllable are as numerous almost as the editions, and the authors who have had occasion to cite it. The corruption is evident to all, but no two agree in the correction.

The whole passage stands thus :

Μεθ' ὧν, ποταμοὶ πλείονες, καὶ ἄλλοι συνεχεῖς ὄρμοι, διηρημένοι κατὰ σταθμὰς καὶ δρόμους ἡμερησίως πλείεις, τὲς πάντας ἔπτα, μέχρι Πυραλαίων⁴³ νήτων, ΚΑΙΝΗΣ ΛΕΓΟΜΕΝΗΣ ΔΙΩΡΥΧΟΣ, ἀφ' ἧς μικρὸν ἐπάνω ΤΟΥ ΛΙΒΟΣ, μετὰ δύο δρόμους νυχθημέρους, παρ' ΑΥΤΗΝ ΤΗΝ ΔΥΣΙΝ ΕΙΤΕΝΗΔΙΟΜΜΕΝΟΤΘΕΣΙΑΣ ἀπαντᾶ νῆσος.

Salmasius reads παρ' αὐτὸ τὸ Πράσον ἄκρον εἰς ἑὴ Μενυθιάς ἀπαντᾶ νῆσος. Blancard follows Salmasius, but in this correction, τὸ Πράσον ἄκρον is assumed without a shadow of resemblance, and is as wrong in point of geography as criticism. The Menuthias of the Periplus has no reference to Præsum whatever; and the mistake of Salmasius arises from supposing that the Menuthias of Ptolemy and the Periplus are the same, which they certainly are not.

Others read,

"Εἰτε Μενυθιάς ἀπαντᾶ νῆσος.

"Εἰτε νῆ δὲ ἑὴ Μενυθιάς ἀπαντᾶ νῆσος.

⁴³ The Basil edition reads ἐπ' ἄνω Πυραλαίων.

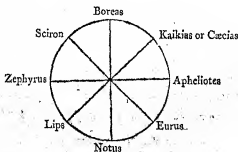
Henry Jacobs, in Hudson's Minor Geographers, vol. iii. p. 68. reads,

παρ' αὐτὴν τὴν δόξαν εἰς τὸ νότιον Μενεθίδος ἀπραντῶ νῆσος.

But Henry Jacobs adds also, that Prafum is not Mosambique but the Cape of Good Hope. He can find no authority for this, but the estimate of Marinus, and Marinus himself corrects his excess, and reduces his latitude of 34° south to $23^{\circ} 30' 0''$. See Ptol. lib. i. c. 7.

Impressed with the appearance of these difficulties, I venture on the following discussion with no common uncertainty; and little practised as I am in the science of correction, I decline the grammatical and critical part of the inquiry, and wish to confine my reflections almost wholly to what is purely local and geographical.

I. First then it is to be observed that our author has certainly not more than eight⁴⁹ quarters of the heavens, or as we should say in modern language, eight points of the compass, the same number as is marked upon the eight fronts of the Temple of the Winds at Athens, under the following appellations:



⁴⁹ It is not intended to say that the whole not more than eight. It uses *Aparcias* for eight occur in the *Periplus*, but that it has the north, *Dufis* for the west.

In the application of these, or the terms equivalent to these, the *Periplus* is by no means accurate; of this we have a direct proof in laying down the coast at *Arômata*, and in its neighbourhood, where, if our charts are accurate, as they are generally at least, it is impossible to apply the points of the *Periplus* to the actual state of the coast.

II. Secondly, let us examine the points of the compass specified by the author in this passage, and his manner of expressing them; these are *ἐπάνω τῷ Λιβῶς*, or *ἐπ' ἄνω*³⁰, and *παρ' αὐτὴν τὴν δύσιν*, answering to the west and south west in the foregoing figure; and here it is observed, that *ἐπάνω* or *ἐπ' ἄνω τῷ Λιβῶς*, is not known as a Greek idiom. But let us suppose it to be a nautical phrase, how is it to be interpreted? *Africum versus à superiori parte*? *Altius quam Africus*? *Above* the south west? If this has a meaning in Greek what is to be understood by *above*? Is it more to the south or more to the west? that is, is it south west by west, or south west by south? The difficulty which occurs here, induces Dr. Charles Burney, of Greenwich, to discard the expression and to read *ἐπ' ἀνατολῆν*, for *ἐπάνω τῷ Λιβῶς*.

In the next place how are we to understand *παρ' αὐτὴν τὴν δύσιν*? *Παρά*, according to the lexicons, has a sense of motion to a place. In which form it might be rendered directly to the west, to the *west direct*. The general usage for this in the *Periplus* is *εἰς Ἰσθμὸν*, p. 7. *εἰς ἀνατολῆν*, *ibid*; but in p. 9. almost immediately preceding the passage before us, *παρ' αὐτὸν ἤδη τὸν Λίβρα* seems to express the direction³¹ of the

³⁰ *Ἐπάνω* with a genitive is in common use, juxtaposition, or side by side, as *παρῆμος*, but whether it can be used with a wind, or in *παρῆλος*. See *Odyf. E. 418. 440. κίνας* what sense, is dubious. *Ἐπάνω τῷ γυμνάσιον*, *παρῆλος*, where the waves do not break *above the ornament*, is a known idiom. directly against the coast, but run along the side of it.

³¹ The primitive sense of *παρὰ*, seems to be

coast lying south west and north east as we should express it in English, or the course of a vessel along the coast in a south west direction.

III. Thirdly, we must inquire how these expressions can be applied in any of their senses to the actual geography of the coast and island; and here I assume Menûthesias or Menûthias for one of the Zanguebar islands, from the distance specified, which is at thirty stadia from the coast, equal to eight or ten miles, and corresponding with the distance of no other islands in this part of the voyage. Of the three Zanguebar islands, Monfia the third, or southernmost may well be preferred from the account of distances in the Periplus, both previous and subsequent. And if we assume Monfia, our next inquiry must be, how this lies with respect to the coast; the chart will shew that it lies directly east. A sufficient cause to justify the reading of Dr. Charles Burney, of ἐπ' ἀνατολήν, for ἐπάνω τῷ Λιβάδῳ. But let us try if ἐπάνω τῷ Λιβάδῳ has a meaning, how it could be applied. I have assumed Mombaça for the Pyraláan islands, or rather for the Καινὴ διάρυξ, the new canal⁵². The vessel is plainly setting out from this point, [καὶ τῆς καινῆς λεγομένης διάρυκος, ἀφ' ἧς μικρὸν ἐπάνω τῷ Λιβάδῳ,] that is, from Mombaça, and going down to an island eight or ten miles distant from the coast. The coast itself runs south west, but if she is to stand off the coast for the island, she runs not south west, but more towards the south than south west. Now this is actually the course a vessel must hold to run from Mombaça to Monfia. It would not be south direct, but a little to the south of

⁵² The proofs will be found p. 153. et seqq. supra.

south west. If therefore *ἐπ'άνω τῆ Διόδου* can be made a Greek idiom, or a Greek nautical phrase, this I conclude is the only interpretation it could bear. It must be noticed likewise, that this expression must be applied to the course of the vessel, as *παρ' αὐτὴν τὴν δύσιν* must apply to the position of the islands, it is joined with *μετὰ δύο δρόμους νυχθημέρους*, as *παρ' αὐτὴν τὴν δύσιν*, is joined with *ἐπιτηδηδιωμμεναθεσίας ἀπαντῶ νῆσος*.

What then is *παρ' αὐτὴν τὴν δύσιν . . . ἀπαντῶ νῆσος*? That I have scarce the hardiness to say. *West* it cannot be, for whatever lies west from Mombaza, or any point on the coast, must lie inland on the continent of Africa. Neither can it signify the island itself lying east and west, or the three islands taken together, for they lie nearly north and south. This reduces a commentator to his last resource, which is either to say that *δύσιν* is a false reading, or to find another sense for it, if it must be retained. I confess this dilemma most candidly, and have no more confidence in the following suggestion, than just such as the reader shall please to give it.

I do not discard *δύσιν*, but give it another sense, as the only alternative left to my choice. It has been noticed in the preceding work that *δύσις* and *ἀνατολή*, besides their literal meaning of west and east, have likewise a relative sense given to them by mariners, in which they are applied to the general tendency of the voyage rather than to the quarters of the heavens, in regard to the ship's place, or the individual point where the mariner is at the moment he is speaking. It is owing to this that when a vessel is proceeding from Mofambique on her voyage to India we read in her journal that she sailed to the eastward, though undoubtedly her course was north or north east; or if she is proceeding to the Cape, it is said she sailed

to the westward, though her course is certainly south or south west. An expression adopted on our own coast²³ also, and perhaps on every other; and I can now shew that this is the language of the Periplus beyond dispute; for (at p. 35.) when the author is describing the passage round Cape Comorin he has these words, *περὶ δὲ τῶν μετ' αὐτὴν [Διμυρικὴν] χωρῶν, ἤδη πρὸς ανατολὴν τῆ πλοῦς ἀπονεύουτος, εἰς πέλαγος ἔκκειται πρὸς αὐτὴν τὴν ΔΥΣΙΝ, νῆσος λεγομένη Παλαισιμούνδα, παρὰ δὲ τοῖς ἀρχαίοις αὐτῶν Ταπρόβανη;* that is, “When the course “takes an inclination to the east round the coast, [or on that part of “the coast] which succeeds to Limyricè, there lies out at sea directly “to the west [south] an island called Palæsimoondoo, [by the “natives,] but which their ancestors used to call Tapróbana.” The expression here is precisely the same, except that it is *πρὸς αὐτὴν τὴν ΔΥΣΙΝ*, instead of *παρὰ αὐτὴν τὴν ΔΥΣΙΝ*. *Πρὸς* intimating, as I conceive, the point of the compass, and *παρὰ* the course of a vessel in that direction. And if we now ask, what is the meaning of *Δύσιν*, the map will shew in an instant, that Ceylon does not lie WEST from the continent but SOUTH. It is on this evidence that I wish to render *Δύσιν* south, in the passage before us, remarking that the three Zanguebar islands lie directly SOUTH from Mombaça. If this be rejected, I do not see how to find any application for the term *west*, in relation to any part of the coast, or to any other island in the neighbourhood.

IV. We come now to the word which is the cause of all this speculation, and in *Ἐιτενηδιωμμενεθισίας* all the commentators are agreed, that Menúthias in some form or other is to be collected out

²³ The trade to the Baltick is always called the East Country Trade.

of the latter part of the polyfyllable. I should have wished to consider Menûthias as an adjective rather than a substantive, Menuthesian rather than Menuthias. In *νηδίωμε* I am led to *νησίω*, both by the context and the letters, for *νηδίωμ* is *νηδίω* in the writing of MSS., and *ν* is often turned into *μ*, not merely by an error of the copyist, but by coming before another *μ*. If this be allowed, the change of *δ* into *σ* seems to give *νησίω* with great facility.

Let us then examine what the geography requires. It requires that Menûthias, if it is *Monfia*, should be described as *one of the three Menûthesian or Zanguebar islands*, or it should be described as *the southernmost of the three Menûthesian or Zanguebar islands*. This is the sense I want to elicit from the corruption; and with as little change of the form as possible, I propose the following conjectures:

Παρ' αὐτὴν τὴν δύσιν τῶν νησίω Μενεθεσίω, ἀπαντᾷ νῆσος.

Παρ' αὐτὴν τὴν δύσιν ἐν ἐκ τίνων [οἱ εκ τριῶν] νησίω, Μενεθεσίας ἀπαντᾷ νῆσος.

But the form I prefer is,

Παρ' αὐτὴν τὴν δύσιν ἥδη τῶν νησίω, Μενεθεσίας ἀπαντᾷ νῆσος, οἱ

Παρ' αὐτὴν τὴν δύσιν ἔτι νησίω [οἱ νησιδίων ἀπάντων] Μενεθεσίας ἀπαντᾷ νῆσος.

In which case *ἀπάντων* may have been dropped by the repetition of *ἀπαντᾷ*. And in these several readings I should refer *νησίω* to the *Pyralaan* islands immediately preceding, and interpret the passage thus:

Almost directly south then of the [Pyralaan] islands you meet with the island Menûthesias, the last of all the islands.

Ἡδὴ⁵⁴ is a particle frequently used in this manner by the author, and occurs in this very page, παρ' αὐτὸν ἦδη τὸν Λίβα, but if the letters are to be regarded, perhaps παρ' αὐτὴν τὴν δύσιν ἔτι νησιῶν Μενουθεσίας, ὡς παντῶν νήσος; or, παρ' αὐτὴν τὴν δύσιν ἔτι νησιῶν [Πυραλαίων] Μενουθεσίας ἀπαντῶν νήσος, approach nearer to the form of writing than any others, that will bear a sense of any sort.

I am sensible that it is no true canon of criticism to bend the words to the sense we wish to find; I confess freely I am not satisfied with any of these corrections, for in this very page the author uses εἰς τὸν Νότον for the south, and παρ' αὐτὸν ἦδη τὸν Λίβα for the south west; and it is not easy to conceive why he should have used δύσιν here instead of νότον, if it were to signify the same point. The only defence I can make, is, to repeat, that no island on the coast can lie west from the coast, and if it is west from any other place, that place I cannot discover⁵⁵. I submit, therefore, the whole of this discussion to the candour of the reader, and those more practised in critical corrections, with some confidence that if I have not completed the solution of the difficulty, I may have afforded grounds for future commentators to proceed on.

⁵⁴ Ἡδὴ is easier to conceive than to render; Abhinc in passages of this construction follows more readily than mox, continuo, &c. but it is better rendered by *nearly*; ἦδη δὲ πρὸς ἡμέραν, it was *just* day.

⁵⁵ The only possible relation in which I can conceive δύσιν to be employed, is, in regard to the ship's course when she is running down the *western* side of the Zanguebar islands. But such a course would never be expressed by

παρ' αὐτὸν τὸν δύσιν, in the language of the Periplus; for if it were, the course down the coast of the main, opposite to Zanguebar must then be expressed by παρ' αὐτὸν τὸν ἀνατολῆν, as the ship is going down the eastern side of the continent; but this is not so expressed, it is παρ' αὐτὸν ἦδη τὸν Λίβα, in which the direction of the course is marked, and not the ship's course on the eastern shore.

I now read the whole passage thus:

Huffman.

Ἐπὶ ἡ Νίκαιος μὲν ὄν, ποταμοὶ πλείους, καὶ ἄλλοι συνήχεις ἕρμαι, διηρημένοι κατὰ γαδμῶς καὶ δέμας ἡμερησίου πλείους, τῆς πάσης ἑπτά, μέχρι Πυραλαίου⁵⁵ Νήσου⁵⁷, Καίως λεγομένης Διούρου. Ἄφ' ἧς μικρὸν ἑπᾶνω⁵⁶ τῷ Διῶνι⁵⁹, μετὰ δύο δέμας μυχθημίους, παρ' αὐτῆν τὴν δίσαν Ἐπεσθαιμμοθησίας ἀπαισὺν Νήσος, γαδίον ἀπὸ τῆς γῆς ὡσεὶ τριακοσίω, ταπεινὴ καὶ καταδύδρος.

Proposed Text.

... Ἐπὶ ἡ Νίκαιος μὲν ὄν, ποταμοὶ πλείους, καὶ ἄλλοι συνήχεις ἕρμαι, διηρημένοι κατὰ γαδμῶς καὶ δέμας ἡμερησίου πλείους, τῆς πάσης ἑπτά, μέχρι Πυραλαίου Νήσου, καὶ τῆς Καίως λεγομένης Διούρου. Ἄφ' ἧς μικρὸν ἑπᾶνω τῷ Διῶνι, μετὰ δύο δέμας μυχθημίους, παρ' αὐτῆν τὴν δίσαν ἦδη [ἦν] νησίω, Νουθησίας ἀπαισὺν Νήσος, γαδίον ἀπὸ τῆς γῆς ὡσεὶ τριακοσίω, ταπεινὴ καὶ καταδύδρος.

Translation.

... Next succeeds the anchorage of Nicon, and after that, several rivers and other anchorages in succession, distributed into corresponding courses of one day each, which amount to seven altogether, terminating at the Pyralaan islands, and the place called the new canal. From the new canal the course is not directly south west, but something more to the south; and after two courses of twenty-four hours [in this direction,] you meet with the island Menûthesias, lying almost directly south from the [Pyralaan] islands, at the distance of about thirty stadia from the continent. Menûthesias itself is low and woody.

If the question were now asked, whether I am satisfied with this interpretation myself, I could not answer in the affirmative, for the sense I wished to obtain was, that Menûthias was the most southerly of the Menûthesian islands; and this fact I am not able to extract from any position of the words, or any restoration of the passage which I have to propose. I shall therefore only add some emendations of the passage proposed by Dr. Charles Burney, who, however, still doubts whether they ought to be deemed completely satisfactory. If his correction should meet the opinion of the learned, I shall subscribe without hesitation to his restoration of ἐπ' ἀνατολήν for ἐπᾶνω τῷ Διῶνι, and have little scruple in embracing his reading of

⁵⁵ Var. Lect. Πυραλαίου. Basil.

⁵⁷ Καὶ τῆς καίως. Burney.

⁵⁶ Ἐπ' ἄνω. Basl.

⁵⁹ Ἐπ' ἀνατολήν. Burney.

παρ' αὐτὴν τὴν δύσιν διατείνεσα ἢ Μενουβίας, . . . if δύσιν may be rendered SOUTH,

Observations by Dr. Charles Burney.

Περίπλους τῆς Ἐρυθραῆς θαλάσσης. Edit. Princ. Basileæ. Quarto. 1533. p. 20. l. 30.

1. Ὅρμοι, διηρημένοι κατὰ σταθμούς καὶ δρόμους ἡμερησίως πλείους,
2. τοὺς πάνας ἐπιὰ, μέχρι πυριλαίων νήσων, καινῆς λεγομένης διώρυχος.
3. ἀφ' ἧς μικρὸν ἐπ' ἄνω τῆ λιθός, μετὰ δὺ δρόμους νυχθημέρας, παρ'
4. αὐτὴν τὴν δύσιν εἰσημιδιωμμενουθευσίας ἀπαυτῆ νήσος ἀπὸ σταδίων τῆς
5. γῆς ὡσεὶ τριακοσίων, ταπεινὴ καὶ κατὰδενδρος.

In editione Blancardi, Amstel. 1683, in octavo, p. 151. l. 4—14.

L. 2. Πυριλαίων. L. 3. Ἐπάνω.

L. 3. 4. Νυχθημέρας, παρ' αὐτὴ τὸ Πράσον ἄκρον εἰς ἕω Μενουβίας ἀπαυτῆ νήσος, σταδίων ἀπὸ τ.

In editione Hudfoni, Geographiæ Vet. Scriptores Græci Minor. vol. i. p. 9, l. 26.—p. 10. l. 2.⁶⁰

L. 2. Πυριλαίων. L. 3. Ἐπάνω.

L. 4. 5. Σταδίων ἀπὸ τῆς.

L. 2. Μέχρι Πυριλαίων νήσων, καινῆς λεγομένης διώρυχος.

It is surprising, that all the editors should have passed over this passage, which is wholly unintelligible; nor will the supposition of

⁶⁰ The references in these remarks are made to Hudfon's edition.

τῆς νήσου being understood, between μέγρι and Πυριλάων, remove the difficulty, of which you appear to have been the first observer. Καινή διάρυξ, as you remark, would, indeed, be an odd name for an island.

The article is improperly omitted, in the latter part of the sentence. Hence the passage may be thus read:

Μέγρι Πυριλάων νήσων, καὶ τῆς καινῆς λεγομένης διάρυχος.

The word καινῆ; has absorbed καὶ τῆς, which might easily happen, from the similarity of sound, and accent on the final ῆς.

L. 3. ἀφ' ἧς μικρὸν ἐπάνω τῷ Λιβὸς, μετὰ δύο δρόμους νυχθήμερους, παρ' αὐτὴν τὴν δύσιν—

Ἐπάνω τοῦ Λιβὸς, on account of the intervention of μετὰ δ. δ. νυχθήμερους, cannot possibly be connected with παρ' αὐτὴν τὴν δύσιν, nor would these terms, if they could be united, explain the situation of the island Menúthias. Instead of ἐπάνω τοῦ Λιβὸς, read, ἐπ' ἀνατολήν, which precisely expresses the position of Menúthias, with respect to the new canal, or ἡ καινὴ διάρυξ, on the coast of Africa.

To remove all doubt about the truth of the correction, the words of Ptolemy may be adduced:

“Ω (ἀκροσηρίω, τῷ Πράσῳ) παράκειται ἀπὸ θερυνῶν ἀνατολῶν νήσος, ἣ ὄνομα Μενουθίας, p. 131.

It may also be mentioned, that Διψ is the name of a wind; and not of the coast, οὐτεκ which *Africus* blows. What possible explanation:

explanation then can be given to ἐπάνω τοῦ λιβῶς?—The terms θεριναὶ τροπαὶ καὶ χειμεριναὶ, in Aulus Gellius, ii. xxii. p. 210. edit. Conrad. may illustrate Ptolemy's ἀπὸ θερινῶν ἀνατολῶν.

L. 4. Παρ' αὐτὴν τὴν δύσιν εἰληνηδιαμμενουθευσίας ἀπαυλῆ νῆσος ἀπὸ σιλαίων τῆς γῆς ὡσεὶ τριακοσίων.

In the latter part of this portentous word, εἰληνηδιαμμενουθευσίας, Salmasius acutely discovered the name of the island Menûthias; but it is impossible to assent to his change of παρ' αὐτὴν τὴν δύσιν εἰληνηδιαμ, into παρ' αὐτὸ τὸ Πράσον ἄκρον εἰς ἔω. It does not appear, that the author of this Periplûs was acquainted with the Promontory of Prafum; and it is certain, that he never uses εἰς ἔω, but ἐπὶ, εἰς, or πρὸς, ἀνατολὴν, for *Oriente[m] versus*. The new reading also does not sufficiently resemble the old, for it to have just claims to admission.

Henricus Jacobius is still more unfortunate in his conjecture—*δύσιν εἰς τι νότιον Μενουθίας α. νῆσος*. This author, indeed, has, p. 27. l. 26. καὶ τὰ νότια τῆς Ἰνδοκῆς—, but this will not vindicate εἰς τι νότιον, nor will *καὶ α. τι δίκαιον ἀρχαῖον, antiquo quodam jure*, in p. 10. l. 23. nor in p. 20. l. 3. ἡμέρας ἔ. πολὺ τι βλέπουσες, if the passage be found, defend this usage of τι with νότιον. This author, indeed, has, p. 7. l. 34. εἰς τὸν νότον, and again, p. 9. l. 14. so p. 11. l. 16. καὶ τὸν νότον, and p. 12. l. 32. παρ' αὐτὸν νότον,—but τι νότιον is unexampl'd in this Periplûs.

As to ἐν τῶν νησιῶν Μενουθεσίας, or Μενουθεσίας α. νῆσος, it is harsh to admit ἐν, and not agreeable to the usage of the Periplûs.—Ἔστι νησίον Μενουθεσίας, would occasion the omission of two words, ἀπαυλῆ νῆσος, as you observe; which would greatly invalidate the con-

ture, even if the following ταπεινή did not render it inadmissible.—It is right to state, that the word νησίον occurs in this Periplús, p. 22.

l. 10. πρόκειμαι—ἀλλ' ἔ νησίον μικρόν.

Salmafius appears, as has been mentioned, to have rightly traced the name Μενουθιάς, in the latter part of this strange word. In the former, ἐβληνδιωμ, seem to be discoverable the disjointed traces of διαλείνουσα ἤ. The letters are strangely jumbled; but it is to be recollected, that in the very next line, where Hudson gives σταδίων ἀπὸ τῆς, the editio Princeps has ἀπὸ σταδίων τῆς γ.

Let the author himself defend this restitution. First, for διαλείνουσα.

P. 5. l. 16. ἐπ' ἀναβολὴν—διαλείνει.

P. 6. l. 17, ἀκρωτηρίῳ τῷ ἐξ ἀναβολῆς ἀναλείνοι, &c. &c.

To conclude, the whole passage should probably be read thus:

Ὅρμοι, διηρημένοι κατὰ σταθμούς καὶ δρόμους ἡμερησίους πλείους, τοὺς πάντας ἐπὶ τὰ, μέχρι Πυριλάων νήσων, καὶ τῆς καινῆς λεγομένης διάρρυχος· ἀφ' ἧς μικρόν ἐπ' ἀναβολὴν, μετὰ δύο δρόμους τυχθημέρους, παρ' αὐτὴν τῆν δύσιν διαλείνουσα, ἢ Μενουθιάς ἀπαιτῶ νήσος, σταδίων ἀπὸ τῆς γῆς αἰσὰ τριακοσίων, ταπεινή καὶ καλαδένδρος.

No. IV.

ANCIENT MAPS *of the* WORLD.

THREE plates are here presented to the observation of the reader, two of which are original, from Cosmas Indicopleustes, and Al Edrissi, and the third is drawn up by Bertius, for the *Variorum* edition of Pomponius Mela, by Abraham Gronovius, 1722.

I. Pomponius Mela, as earliest in point of time, requires our consideration first, and in this map it will be seen with what propriety the ancients called the extent of the earth, from west to east, length, and the extent, from north to south, breadth. Artemidorus⁶¹ (104, A. C.) is said by Pliny to have first employed the terms of length and breadth, or longitude and latitude. The dividing of these into degrees, and degrees into their parts, was not effected fully before the time of Marinus, nor brought into practice before Ptolemy. But our present inquiry is confined to the appearance of the earth, and here the great object which strikes our attention is the vast southern continent or hemisphere, placed as it were⁶² in counter-balance to the northern. The form in which it here appears seems as if the ancients had cut off the great triangle of Africa to the south, and swelled it into another world in contradistinction to that which they knew and inhabited themselves. It is this supposition which gives rise to the expressions of Manilius⁶³

⁶¹ See Agathemeras, in Hudson's Geog. ⁶² Pom. Mela, lib. i. c. 1. See the map Min. cap. iv. Strabo, lib. i. p. 64. Ptol. itself in Gronovius. lib. i.

Altera pars orbis sub aquis jacet in via nobis,
 Ignotæque hominum gentes, nec tranſita regna
 Commune ex uno lumen ducentia ſole,
 Diverſaque umbras, *levæque* cadentia ſigna,
 Et dexteras ortus cælo ſpectantia verſo. *ASTRON. lib. i.*

And the ſame ſentiment in Virgil.

Audiit et ſi quem tellus extrema reſuſo
 Submovet oceano, et ſi quem extenta plagarum
 Quatuor in medio dirimit plaga ſolis iniqui. *ÆN. lib. vii. 226.*

It is this ſuppoſition alſo which gave riſe to the belief of circum-navigations which never took place; for Mr. Goffelin proves that the voyage of Eudoxus cuts through the centre of the great continent of Africa, and Hanno is carried to the Red Sea without paſſing the equator. This it is which extends the title of the Atlantick Ocean, to the eaſt of Africa as well as to the weſt, and makes Juba commence the Atlantick from Moſyllon. All this is natural, if the continent of Africa be curtailed at the twelfth degree of northern latitude, and the voyage ſhortened by about eighty degrees in extent.

But it may be proper to call the attention of the reader to the view of this ſort of a world, as applicable to the Phenician expedition of Herodotus. A veſſel ſailing along the ſouthern coaſt of ſuch an Africa as this, has in theory the ſun upon the right-hand of the navigators for three parts of the voyage, and this conſtitutes the circumſtance as the grand occurrence of the expedition. But were the ſame veſſel to run into latitude 34° ſouth, the real latitude of the Cape, the ſpace during which the ſun would be on the right-

hand, is a point in comparison of the other course, and the phenomenon would doubtless have been pointed out in other terms, as the quarter of the heavens, or the place of the luminary.

There is another particular in this map also well worthy of attention, which is the source of the Nile placed in the southern hemisphere, and compelled to run under the ocean, like another *Alpheus*, and rise again in *Ethiopia*; now this fable has its origin from one of two causes; for it was either known that this hypothesis cut Africa too short to afford a place for the sources of the Nile, which were carried to an indefinite distance south by the early geographers⁶³, and therefore a situation south must be found beyond the ocean in the other hemisphere, or else it arose from the report of the Nile in the early part of its course, running through a sea with which it never mixes. This is a circumstance which is now known to take place on its passing through the Lake Tzana or Dembea, where Bruce assures us that the course of the stream across the lake is distinctly visible from the high land in the neighbourhood.

Nothing farther worthy of observation occurs in this map, but that it cuts short the peninsula of India as well as Africa, and places *Taprobana* or *Ceylon* as it appears in the tables of *Ptolemy*. It unites also the *Caspian Sea* with the ocean, and gives a circumambient ocean on the north, as navigable as on the south, part of which the *Argonauts* did navigate! and all but the whole was supposed to have been navigated, by *Pliny*. It was this supposition which brought the *Seres* on the north, almost as nearly in contact with the *Caspian*⁶⁴ Sea, as *Mosyllon* was with the *Fortunate Isles* on the south!

⁶³ To 12° or 13° south by *Ptolemy*.

⁶⁴ See the concluding pages of the *Periplus*.

MAP of the WORLD taken from an Arabian Manuscript of 'Al Edrisi in the Bodleian Library

The scales tend to the Nth (centre of Manuscript is of the 42nd North) 33. The Arabic characters represent the 211st as Latin letters are shown in Italics



how many obstacles has real navigation discovered, which fictitious navigators surmounted without a difficulty?

II. The Map of Cosmas⁶⁵

Is so poor a composition, and so wholly the conception of his own mind, that it would be utterly unworthy of notice were it not the original production of the monk himself. The veracity of Cosmas, both in regard to what he saw and heard, is respectable, as we shall shew hereafter in his account of Ceylon; but his hypothesis, as may be seen, makes the world a parallelogram with a circumambient ocean, and the rivers of Paradise flowing on the outside; while the vicissitude of day and night is not caused by the revolution of the earth or the heavens, but by the sun's disk being obscured by a mountain on the north. He also has a Caspian Sea that joins the ocean, and a Nile that runs under the ocean, springing from the Gihon of Paradise in another world. The ignorance of an individual is not astonishing in any age, but the ignorance of Cosmas is extraordinary in the sixth century, when we must suppose the writings of Ptolemy would have been known to a monk of Egypt, and when that monk resided some years within the tropick, and must have seen the sun on the north as well as on the south.

III. The Map of Al-Edriffi.

I owe the knowledge of this map to the kindness of Dr. White the Arabick Professor at Oxford; there are two Arabick⁶⁶ copies of

⁶⁵ See plate in the account of the Adulick of Pocock's, No. 375. Hejira, 906, A. D. 1500. It is from the last that this map is taken.

⁶⁶ One of Graves's, No. 3837. Another

Al-Edrissi in the Bodleian, and that from which the opposite map is taken is beautiful and adorned with maps for almost every chapter. This before us is a general one, curious because it is evidently founded upon the error of Ptolemy, which carries the coast of Africa round to the east, and forms a southern continent totally excluding the circumnavigation into the Atlantick Ocean. The learned Hartman supposes that Al-Edrissi's account goes as low as $26^{\circ} 20' 0''$ south, to the river Spirito Santo. It may be so, for Daguta is his last city, which is but three days sail from Gasta, and Gasta is but one from Komr, the Island of the Moon, or Madagascar. (See Hartman's Al-Edrissi, p. 113. et seqq.) This point and Wak Wak or Ouak Ouak seem to baffle explanation, and Hartman confesses he can find no room for the latter. But with all its fable, it is still the kingdom of the Zinguis, (Hartm. p. 106.) and if so, it must be Benomotapa, which lies inland, and which Al-Edrissi has ignorantly brought to the coast. It is, in short, the termination of knowledge, which, with Arabians as well as Greeks, is always fabulous, and is by some of their writers placed in the Mare tenebrosum, or Sea of China, (p. 107. Bakai another Arabian.)

That the Komr of Al-Edrissi, the Island of the Moon, is Madagascar I have no doubt; because in the maps which detail the coast, I found the continuation of this island opposite to the continent through several chapters, in all which parcels, Dr. White assured me the name of Komr was regularly repeated; and though Hartman is by this made to doubt concerning Saranda, Serendib, or Ceylon, (p. 116. et seqq.) there is no ground for hesitation, the error originates with Ptolemy, and the necessity of carrying round the lower part of Africa to the east, compels those who follow his hypothesis to throw

up Madagafcar nearly oppofite to Ceylon, to bring the Indus into the Gulph of Perfia, and the Ganges over the head of Ceylon. Whether all thefe inconfiftencies would have appeared as grofs in detail as in the general map, I cannot fay; my want of Oriental learning, I regretted, did not permit me to examine the MS. myfelf, in a fatisfactory manner, and I had intruded too far on the affiftance of the profeffor. To judge by Madagafcar and the coaft of Africa, I ftill think the fearch would repay any Orientalift who would purfue it; and when Sir William Oufely has finifhed Ebn Haukel, what better fcene for the employment of his fuperior talents than Al-Edriffi, whom we all quote from an imperfect tranflation, and whom we fhould know how to appreciate, if the dross were once feparated from his ore.

The courfe of the Nile is ftill more hyperbolical in this author than in Ptolemy whom he copies, but he has an inland Cafpian as well as that author, and of a better form. To compenfate this, however, he has his magnetick rocks which draw the iron out of veffels, an eaftern fable as regularly at the limit of Oriental knowledge, as Anthropophagi fixed the boundary of the Greeks; while his termination of the coaft of Africa at Daguta where ever that may be fixed, proves that little more had been done by the Arabs of the twelfth century, towards profecuting the difcovery of the coaft to the fouth, than by thofe whom the Greeks found there, or by the Greeks themfelves.

The Arabick names of this map, now fupplied by cyphers, have been tranflated by Captain Francklin of the Bengal Eftablifhment, whofe merit as an Oriental fcholar is fufficiently eftablifhed by his *History of the Revolutions at Dehli*, and who has repaid the instruction of his youth, with the cordiality of a friend.

Numbers and Names of the Chart from the Arabick, by
Captain Francklin.

- | | | | |
|--------|--|---------|---|
| No. 1. | Mountains of the Moon,
and fources of the Nile. | No. 23. | Belad Mufrada. |
| 2. | Barbara. | 24. | Belad Nemanah. |
| 3. | Al-Zung. | 25. | Al-Mulita u Sinhajeli. |
| 4. | Sefala. | 26. | Curan (Karooan of
Gibbon). |
| 5. | Al-Wak Wak. | 27. | Negroland. |
| 6. | Serendeeb (Ceylon). | 28. | Al-Sous Nera. |
| 7. | Al-Comor (Madagafcar). | 29. | Al-Mughrub Al-Am-
kcen. |
| 8. | Al-Dafi. | 30. | Afreekeea (Africa). |
| 9. | Al-Yemen (Arabia Felix). | 31. | Al-Hurced. |
| 10. | Tehama. | 32. | Seharee, Bereneek (or
Defart of Berenicè). |
| 11. | Al-Hejaz (Arabia De-
ferta). | 33. | Miffur (Egypt). |
| 12. | Al-Shujur. | 34. | Al-Shâm (Syria). |
| 13. | Al-Imama. | 35. | Al-Irak. |
| 14. | Al-Habesh (Ethiopia). | 36. | Fars (Persia Proper). |
| 15. | Al-Nuba (Nubia). | 37. | Kirman (Carmania). |
| 16. | Al-Tajdeen. | 38. | Alfazeh. |
| 17. | Al-Bejah. | 39. | Mughan. |
| 18. | Al-Sauced (Upper
Egypt). | 40. | Al-Sunda. |
| 19. | Afouahat. | 41. | Al-Hind (India). |
| 20. | Gowaz. | 42. | Al-Seen (China). |
| 21. | Kanum. | 43. | Khorafan. |
| 22. | Belad Al-Lemlum. | 44. | Al-Beharus. |
| | | 45. | Azerbijag |

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|-----------------------------|-----------------------------------|
| No. 45. Azerbaijan (Media). | No. 65. Al-Alman. |
| 46. Khuwarizm. | 66. Al-Khuzzus (Caspian Sea). |
| 47. Al-Shafh. | 67. Turkea (Turkey). |
| 48. Khirkeez. | 68. Albeian (Albania). |
| 49. Al-Sefur. | 69. Makeduneeah (Macedotia). |
| 50. Al-Tibut (Tibet). | 70. Baltic Sea. |
| 51. Al-Nufuz Izz. | 71. Jenubea (probably Sweden). |
| 52. Kurjcea (Georgia). | 72. Germania (Germany). |
| 53. Keymâk. | 73. Denmark. |
| 54. Kulhæa. | 74. Afranseeah (France). |
| 55. Izzea. | 75. Felowiah (Norway). |
| 56. Azkufh. | 76. Burtea or Burtenea (Britain). |
| 57. Turkefh. | 77. Corfica, Sardinia, &c. |
| 58. Iturâb. | 78. Italy. |
| 59. Bulghar (Bulgaria). | 79. Afhkerineah (part of Spain). |
| 60. Al Mutenah. | |
| 61. Yajooj (Gog). | |
| 62. Majooj (Magog). | |
| 63. Afiatric (Ruffia). | |
| 64. Bejeerut. | |

DIRECTIONS TO THE BINDER.

I. The Portrait of Vasco de Gama to front the title page.

This portrait is taken from the Portuguese manuscript of Resende, in the British Museum, and by the account of Faria y Sousa, (vol. i. p. 281.) answers to the portrait of Gama, preserved in the Viceroy's palace of Goa, where the portraits of all the Viceroys seem to have been placed. Faria writes thus: "He died upon Christmas Eve, having been Viceroy three months, was of a middle stature, somewhat gross, of a ruddy complexion. He is painted with a black cap, cloak and breeches, edged with velvet, all *flashed*, through which appears the crimson lining, the doublet of crimson satin, and over it his armour inlaid with gold." If this description be from the portrait at Goa, we have here probably a drawing from the picture, as it corresponds in every particular except the flashes in the cloak.

II. Chart of the Red Sea, to front Book II. p. 69.

III. Chart of the Coast of Africa, to front p. 111.

IV. A drawing of Adûli and the Chair of Ptolemy, &c. In the bottom of the plate is a general plan of the World; both from the MS. of Cosmas Indicopleustes, published by Montfaucon, (tom i. p. 188. Nova Collectio Patrum,) to front the dissertation on the Adulitick marble; Appendix, p. 50.

V. A general map of the world, constructed for Pomponius Mela, to front the account of ancient maps in the Appendix, p. 80.

VI. A general map of the world from an Arabick MS. (in the Bodleian Library) of Al-Edrissi, commonly called the Nubian Geographer; this map to front, p. 83. Appendix.

E R R A T A.

- Page 3. line 2. *for work read journal*
 10. note 7. *for αυρος read ὄψις*
 15. line ult. *dele only*
 25. — 7. *for Agatharcides read Agatharchides*
 32. note 61. *for מִבְּרֵאשִׁית read מִבְּרֵאשִׁית*
 47. note 84. *for γυναικῶν read γυναικῶν*
 48. note 85. *for Ὀξεία read Ὀξεία*
 58. note 108. *for ταύρων read ταύρων*
 69. N° XII. *after Ananai insert Ardmata*
 79. note 30. *for Μολύβδος read Μολύβδος*
 84. line 4. *for that is from Berenice read that is, lies 4000 stadia from Berenice*
 penult. for Elbelh read Habesh
 98. note 73. *for Turanta read Taranta*
 28. note 74. *after fifteen add days*
 125. line 14. *for Tεpara read Te-pera*
 130. — 11. *for 11° 30' d'Anville read 11° 45' d'Anville*
 135. — 15. *for Morro Cabir read Morro Cubir*
 140. — 7. *for Aden read Adca*
 175. — 2. *for Necho read Neco*
 196. — 8. *for 1525 read 1521*
 197. note 323. *for passate ne nuri, de ponente read passare ne mare de ponente*
 202. line 2. *for map and chart read map or chart*
 223. — 2. *after tunc insert it*
 10. *for other tribe read other, a tribe*

APPENDIX.

24. *for Coltus Corticosus bark, Coltus read Costus Corticosus, bark Costus*
 31. line 5. *for Callesu read Callean*
 62. note 46. line 2. *dele, that*

At pp. 43. 47. 61. and 98. Hadramunt is printed for Hadramaut.

P. 100. note 79. *Υαμμείτιχος* παρέχεται φάρμακον πᾶσι τοῖς ἰσχυροῖς μέλιμα δὲ τις φοιᾷ καὶ ἔλλοσι ought to have been printed at the end of the first book.

P. 74. note 11. the note ought to be erased.

P. 126. note 147. the error improperly imputed to Mr. Gosselin is corrected p. 136.

P. 28. note 51. *add* the Hyena is said to imitate the human voice, by Busbequius. Eng. ed. p. 79.

P. 86. note 48. *ω* is printed for *υ*, and *υ* is in many MSS. the character of beta (as in Mr. Townley's MS. of Homer, &c. &c.); it was easy to turn this *υ* of the MSS. into *α*. Hence the fluctuation in Ptolemy of *α* and *υ*, which ought always to be *υ* or *υ*, which are both the same, and answer to one twelfth, or five minutes the twelfth of sixty.



A P P E N D I X.

A CATALOGUE *of the* ARTICLES *of* COMMERCE

MENTIONED IN

THE DIGEST OF THE ROMAN LAW,

AND IN

THE PERIPLUS OF THE ERYTHREAN SEA.

AFTER the former part of this Work was published, a recommendation occurred in the Indian Disquisitions of Dr. Robertson (p. 58.), to compare the Roman law in the Digest with the articles of commerce in the Periplus. This task I undertook with great readiness, and had the satisfaction to find the concurrence so general, as to encourage me to pursue the comparison throughout. The conclusion derived from the performance of this task was a conviction that the digest was the best commentary on the Periplus, the most ample proof of its authenticity, and the most complete illustration of the Oriental Commerce of the ancients. This consideration led me to the desire of consolidating the two catalogues into one, in which I might centre the proofs, and at the same time have an opportunity of correcting the errors I had been led into by my dependence on classical authorities, without a sufficient knowledge of Natural History. To this cause, I trust, will be imputed, the defects of the former catalogue; and, though the same cause may still operate,

A P P E N D I X.

rate, in a degree, I have now, however, been assisted in removing many misconceptions by the kindness of Dr. Falconer of Bath, and by that of his Son; who is a fellow-labourer with me in the illustration of ancient geography, and the translator of the Periplus of Hanno. To both of them I was known only by my publications, and unsolicited by me, both proposed several corrections which I am happy to adopt. If the object of an author is the investigation of truth, he will receive all friendly corrections with gratitude, rather than defend his errors with pertinacity or ill-humour. I am sensible also, that I stood in more need of advice than many others might have done, because I came to this office with less information in Natural History, than was requisite for the undertaking. This, perhaps, might have been a sufficient reason for declining it altogether; but I wished to elucidate the author that I had before me; and, I trust, that what I have done, will be acceptable to every reader who is not deeply versed in Natural History himself.

N. B. When an article in the following catalogue is found both in the Digest and the Periplus, it will be marked D. P.; and with one of those letters, when it occurs only in one of them.

When the observations are inserted which I received from Dr. Falconer or his Son, those of the Father will be marked F. F. and those of the Son F.

Observations which are still dubious will be marked Q.

THE Rescript of the Roman Emperors relating to the articles imported into Egypt from the East, is found in the Digest of the Roman Law, book xxxix. title xvi. 5, 7. in the edition of Gothofred. vol. i. p. 570, (best edition, vol. ii. p. 919.) and cited by Salmasius Plin. Exercit. p. 1189. Paris edition, 1629. Ramusio, vol. i. p. 371. Purchas, vol. ii. p. 33, and by Bergeron, &c. &c.

Neither Ramusio or Purchas have entered into any discussion of the articles specified, but enumerate them as they stand in the Rescript, which Gothofred shews to be abundantly incorrect. Salmasius has done much towards restoring the true reading, and much is still wanting.

The law itself, or rather the Rescript, is imputed by Ramusio to Marcus and Commodus, and, standing, as it does, between two other Rescripts, which bear their name, it is probable that this opinion is right.

The passage which precedes the Rescript in the Digest, is as follows:

“ The Rescript of Marcus and Commodus ordains, that no blame shall attach to the collectors of the customs, for not noticing the amount of the customs to the merchant, while the goods are in transit; but if the merchant wishes to enter them, the officer is not to lead him into error.”

Upon this, it is only necessary to observe, that Commodus was associated with his father Marcus Aurelius Antoninus, in the empire, four years before his death; that is, from the year 176 to 180. This makes the Rescript more than a century later than the date I have assumed for the Periplus. Anno 63. See supra, p. 57.

GENERAL TITLE OF THE SECTION.

Species pertinentes ad Væligal,

Which may be rendered, "Particular articles [of Oriental Commerce] subject to duties [at Alexandria.]" Or, if Species be confined to a sense in which it was sometimes used, it signifies *Spices*, gums, drugs, or aromatics. Salmasius shews that the same term had been applied in Greek: Inferior Latinitas *speciem* simpliciter dixit, ut Græci, Σιλφίων ἔδος. Λιβυκὸν ἔδος. P. 1050. And Dr. Falconer observes from Du Cange: Aromata, vel res quævis aromaticæ. Gallis, *Epices*.—Spices were mixed with wine. Solomon's Song, viii. 2.; and in the middle ages this mixture was called Pigmentum, the Spicery Bowl; Potio ex melle et vino et diversis speciebus confecta. Du Cange.—Species is likewise used for the ingredients of a compound medicine before they are mixed. F. F.

ARTICLES of COMMERCE mentioned in the DIGEST, and in the PERIPLUS of the ERYTHREAN SEA, assigned to ARRIAN.

A

1. Ἀβόλλαι. *Abollæ*. P.

If this term be Greek, it is remarkable that it should not occur in any Greek Lexicon, and if it is Latin (as apparently it is), it is equally remarkable that a Greek merchant of Alexandria, such as the

the author probably was, should have introduced a Latin term into his Greek catalogue; but Latin terms crept into purer Greek writers than our author, and commerce perhaps had adopted this, as expressing the actual garment which was neither used by, or formerly known to the Greeks. The Roman Abolla was a military cloak³, perhaps not unlike our watch cloak. And the adoption of the word is not more strange than the usage of the English in adopting the French *Surtout*, or the French adopting the English *Redingote* (Riding Coat).

2. *Αβόλοι νόβοι χρομάτωσι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmat. ad Vopiscum.

*Αβόλοι, according to Salmasius (Plin. Exercit. 1062,) are single cloths, the same as ἀπλόιδες, in opposition to διπλόιδες, or double; but whether this relates to the texture, to the ornaments wrought on them, or the consideration of their being with lining or without, seems difficult to determine. Our weavers call a silk, *shot*, when the warp is of one colour and the woof of another; and the word *Αβόλοι may be literally rendered *unshot*; but it does not follow that this is an accurate rendering of the term. Homer mentions garments both single and double; and Deborah makes the mother of Sisera say, that

³ The word Abolla is not in Du Cange, but it is in Meurcius, who says, that the following article *Αβόλοι ought to be read Αβόλαι. The gender of the adjectives used with *Αβόλοι is adverse to this supposition.

² It seems worn as an outer military cloak by officers and men of rank. Ptolemy, son of Juba, king of Mauritania, grandson of M.

Antony by Seléné the daughter of Cleopatra, was killed by Caligula, who was a great grandson of Antony, non alia de causa quam quod edente se manus, ingressum spectacula convertisse oculos hominum fulgore purpureæ abollæ animadvertit. Suet. Calig. c. 35. It was likewise a garb of the philosophers, audi facinus majoris Abollæ. Juvenal.

her son had perhaps brought home a raiment of needle work, of needle work *on both sides*, which is apparently correspondent to the tunick, which Ulysses describes to Penelopé (Od. lib. T. 230). If this interpretation, therefore, should be admissible, ἄσολοι χειρομάτῳι may be rendered *plain cloths of one colour*, and νόθοι would express that they were of an inferior quality. But see the term διπλοίματος, Diog. Laertius in Diogene, p. 350. Horace. *Duplici³ pannu* patientia velat. And the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σὸς μόνος δέδοται ἐν χλαμύδα φορῆν ἐν ῥάκῳς. “You are the “only Philosopher who can assume with equal propriety the dress “of a gentleman (χλαμύδα), or the ordinary garb (ῥάκῳς) of a “cynick.”

3. Ἀδάμας. *Diamond.* D. P.

The ancients certainly apply this word to our modern gem the diamond, but use it in a larger sense as we still use adamant, applied to other hard substances. But in the only passage where it occurs in the Periplus, it is mentioned on a coast where diamonds very probably were to be purchased, and is joined with the Hyacinth or Ruby, and other transparent stones.

Theophrastus thought the diamond indestructible by fire, which is now found to be a mistake, F. Many experiments have been tried on this subject of late, and diamonds under the rays of a reflecting mirror, have been reduced to *charcoal!*

4. Ἀλάβαντα.

A precious stone between a ruby and an amethyst. Dutens, p. 16. But Hoffman renders it toys or trifles. See Cosmas, Ind. Mont-

³ See Apollonius, Epif. iii. where δελκ is opposed to τριβλα.

fauson, Nov. Col. Patrum, p. 337. 'Η Ταπρόβαινη εἶτα λοιπὸν εἰς τὴν σπεραιὴν ἑμπορίων, ἢ Μαραλλῶ βάλλουσα κοχλίας, ἔστ' Καβέρ βάλλουσα τὸ Αλαξανδρον. Marallo seems to be Marawar, and Kaber the Kaveri; and if pearls are the attribute of Marallo, some precious stone should of course be the attribute of Kaber.

5. Ἀλόη. D. P.

There are two sorts of Aloe, one a bitter cathartic, and another an aromatic, by some supposed to be the sandal-wood. See Salm. Plin. Ex. 1056; but it is, to all appearance, the Agallochum of the Digest, mentioned still under the name of Agala, as an odoriferous wood by Captain Hamilton, at Muscat. Account of the E. Indies, vol. i. p. 68. It is probably used by the author of the Periplus in the former sense, as being mentioned on the coast of Oman in Arabia, where the Succotrine Aloe is naturally imported, as the island Socotra itself was under the power of the Arabs on the main, being subject to Eleazus king of Sabbathath, in the neighbourhood of Oman.

It is remarkable, that when the author arrives at Socotra, he says nothing of the Aloe, and mentions only Indian Cinnabar as a gum or resin distilling from a tree. I was at a loss to understand what this meant, till I learned from Chambers's Dictionary that the confounding of Cinnabar with Dragon's Blood was a mistake of ancient date, and a great absurdity. Dragon's Blood is still procurable at Socotra.

6. *Amomum*. D. See *Kard-Amomum*.

7. Ἀνδριάντες. *Images.* P.

These are mentioned as imported into Oman in Arabia; but whether as merely ornamental, or objects of superstition, does not appear. Dr. Falconer had supposed that these might be images, brought from the East like our China figures; but they are imports from Egypt into Arabia, and therefore probably Grecian workmanship. See Peripl. p. 16. F. F. & F.

8. Ἀργυρώματα, Ἀργυρᾶ σπέση, Ἀργυρώματα τετορευμένα. *Plate, Plate polished.* P.

These works in silver do not appear to be the beautiful produce of Greek artists, but vessels of plate adapted to the market. By the frequent mention of these articles, they must have formed a considerable branch of commerce.

9. Ἀρσενικόν. *Arsenick.* P.10. Ἀρώματα. *Aromatics.* P.

Drugs in general are comprehended under this term (Sal. Plin. Ex. p. 1049, 1050).

11. Ἀσύφη. *A species of Cinnamon.* See Κασσία. P.

B

12. Βδέλλα. *Bdellium.* P.

An aromatic gum, supposed to be imported from Africa, but now seldom used*. Salmastius† describes it as a pellucid exudation from

* Chambers in voce.

† Plin. Exercit. p. 1150.

the tree so called, not quite clear, of a waxy substance, and easily melted, called by the Portuguese *anime*; there are three sorts, Arabian, Petraean, and Baſtrian. It was imported, according to the Periplūs, from Binnagara, or Minnagara [Bekker], in Scindi; and from Barygaza [Baroach] in Guzerat.

The בדלה Bhdolahl of scripture, Gen. ii. 12. Num. xi. 7. rendered bdellium, is by the Rabbis rendered chryſtal, and has nothing in common with the bdellium of the Periplūs but its transparency. The word bdellium ſeems a diminutive of the bdella uſed by our author. Pliny, b. xii. c. 9.

There are ſtill found three ſorts; two African, rather of dark brown hue; and one Aſiatic, answering the deſcriptions of Salmaſius, generally brought to England among parcels of myrrh. There are ſpecimens of the African ſort in the collection of Dr. Burgeſs.

Bdella are ſuppoſed by Benjamin of Túdela to be pearls (p. 52. Bergeron); and oysters, either he or his tranſlator calls reptiles: he finds them at Katiphan (el Katif). And Schikard interprets bedolach, pearls; but ſays they are not the bdellium of ſcripture. Pliny: tranſlucidum, ſimile ceræ, odoratum, et cum fricatur, pingue, guſtu amarum, citra acorem; aliqui Peraticum appellant ex Media advectum. Lib. xii. 9. or 19 Hardouin. Peraticum is the general term of the Periplūs for any article brought from beyond the Straits of Bab-el-mandeb; or, according to Hardouin, ἐκ τῶν περάτων τῆς γῆς. In Pliny it is evidently a gum; the beſt ſort from Baſtria, and the inferior ſpecies from Arabia, India, Media, and Babylon. It is alſo a gum apparently in the Periplūs. F.

13. *Beryllus*. D. *Beryl*, *P. Aigue Marine*, *Aqua Marina*.

Some have mistaken it for the cornelian, but the true beryl has the colours of sea water. Pliny, xxxvii. 20. Hard. Probatissimi sunt ex iis, qui viriditatem puri maris imitantur. It is a gem of great hardness, very brilliant, transparent, and of a green and blue colour delicately mixed, and varying according to the different proportions of either. Dutens.

14. *Byssus*, *Opus Byssicum*. D. *Byssion*.—*Cotton Goods*.

I understand there is a work of Dr. Reinhold Forster, *De Byssio Antiquorum*.

Γ

15. *Galbana*, *Galbanum*. D.

A gum from a ferula or fennel growing in Africa. Salm. p. 353. It is an emollient, and used in plaisters; supposed to be derived from the Hebrew chelbena, fat. Exod. xxx. 34. Ecclef. xxiv. 21. Chambers in voce.—“Galen, Dioscorides, and Pliny, describe it also as the produce of a ferulaceous plant. Bubon Galbanum “foliolis rhombis, dentatis, striatis, glabris, umbellis paucis. Linn. “Sp. Pl. p. 364. Little used as an internal medicine; but described “also by Nicander in the Theriaca.” F. F.

16. Γέζιγ. Ζίγυρ. Γίζι. *A species of Cinnamon*. P. See *Κασσία*.

Zigeir in Persick signifies small. The smaller and finer rolls of cassia were most valued, Dioscorides says, the best sort was called Gizi, which is a corruption of Zigeir.

17. Διμύσσια,



17. Δικρόσσια, p. 8. *Dicrossia*.—Cloths either fringed or striped. P.

Κορσαί and κορσασαί, according to Salmasius^o; from Hesychius, signifies the steps of a ladder, or in another sense, the cornice of a wall, or the battlements. But he derives the same word from κείρω, to shave, and interprets κόρσοι, locks of hair. Hence cloths, δικρόσσια, he says, are those which have a fringe knotted or twisted.

But Homer uses the word twice. 1st. Κρόσσας μὲν πύργων ἔμον καὶ ἔρειπον ἐπ'άλξεις. M. 258, where it agrees with the interpretation of Hesychius, the cornice of the wall, or as it may be rendered the *step* of the parapet, a *rim* or *line* running round below the battlements. Not differing, perhaps, from the application of the word as used Ξ 35, where Homer says, the ships were too numerous to be drawn up on the shore in one *line*. Τῶ ρὰ προκρόσσας ἔφυσαν^o, they therefore drew them in *lines* one behind another like the steps of a ladder. Agreeable to the other explanation of Hesychius, or as Apollonius renders it, ἀποκρηπιδόματα, in *stripes*^o.

We may therefore conclude, that we cannot err much in rendering the Δικρόσσια of the Periplus, either cloths *fringed*, with Salmasius, or *striped* with Apollonius. So Virgil, virgatis lucent fagulis. The term used here is in conjunction with cloths. * Ἄβλοιοι καὶ λέντια καὶ δικρόσσια, where perhaps ἄβλοιοι is in opposition to δικρόσσια. Λέντια is the Latin word *Lintea*, and Meurfius in voce, says, λεντία ἀκροσσια are plain linens, not striped.

^o Plin. Exercit. p. 762.

? See Lennep in voce.

! See Apollon. Lexicon in voce.

18. Δηνάριον. *Denarius*.—The Roman coin, *scorib* in general denomination nearly *Sd. English*. P.

It appears by the *Periplus*, that this coin was carried into Abyssinia for the sake of commerce with strangers, and that both gold* and silver *Denarii* were exchanged on the coast of Malabar against the specie of the country with advantage to the merchant.

19. Δάκα, Κερτά, Δάκαρ. P.

Are joined in the *Periplus* with *Kassia*, and are supposed to be inferior species of the cinnamon. See *Ramusio*, in his discourse on the voyage of *Nearchus*, and *Salmaf. de Homonymiis Hyles latrices*, c. xcii. c. xciii. a work referred to by *Salmasius* himself, but I have not seen it.

20. Δύλακα. P.

Slaves of a better sort and for the Egyptian market.

E

21. Ἐλαιον. *Oil of Olives*. P.
 22. Ἐλέφας. *Ivory*. D. P. Ebur. D.
 23. Ἐυόδια. *Fragrant spices or gums*. P.

Z

24. Ζώναι σκιωτάι. P.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in *sashes*, ornamented with

* The gold *Denarius*, according to *Arbuthnot*, was the forty-fifth part of a pound of gold in the age of *Nero*.

every sort of device, and wrought up with great expence. *Σκιστάι* does not occur in the lexicons, but probably means *shaded* of different colours.

25. *Ζίγγιβερ.* *Ginger.* D. P.

Not mentioned in the *Periplús*, but by *Salmasius* **, who says the ancients knew little of it, and believed it to be the root of the pepper plant. It is applied to a species of cinnamon by *Dioscorides* (p. 42.), possibly to an ordinary sort from the coast of *Zanguebar*, and *Zingiber* itself may be derived from *Ziengi*, the name of the African blacks on that coast.

H

26. *Ἡμίονοι νυτχηοί.* *Mules for the saddle.* P.



27. *Θυμίαμα μοσχοῦ.* *Gums or Incense.* D. P. *Μοσχοῦ* occurs only in the *Periplús*, p. 7. and without any thing to render it intelligible.

I

28. *Ἰμάτια βαρβαρίαι ἀγναφα τὰ ἐν Αἰγύπτῳ γινόμενα.* *Cloths. P.*

For the *Barbarine* ** market, undressed and of Egyptian manufacture.—The *Barbarines* are the ancient *Troglodyte* shepherds of Upper Egypt, Nubia, and Ethiopia, very graphically traced and distinguished by *Bruce*.

** *Plin. Exercit.* p. 1070.

** The west coast of the Gulph of Arabia.

Ἰμάτια βαρβαρικά σύμμικτα γυγναμμένα. *Clotbs.* P.

For the Barbarine market, dressed, and dyed of various colours.

Ἰματισμὸς Ἀραβικὸς χειριδωτὸς. ὅτε ἀπλῆς καὶ ὁ κοινὸς καὶ σκοτυλάτος
καὶ διάχρυσος. *Clotbs.* P.

Made up, or coating for the Arabian market.

1. Χειριδωτὸς. P.

With sleeves reaching to the wrist.

2. Ὅ τε ἀπλῆς καὶ ὁ κοινὸς. See Ἀβολοί. P.

3. Σκοτυλάτος. P.

Wrought with figures. From the Latin Scutum, Scutulatus; the figure being in the form of a shield. A dappled grey horse is thus called Scutulatus.

4. Διάχρυσος. *Shot with Gold.* P.

5. Πολυτελής. P.

Of great price.

6. Νόθος. P.

In imitation of a better commodity.

7. Περισσότερος. P.

Of a better quality, or in great quantity.

8. Παντοῖος. P.

Of all sorts.

9. Πολύμητα

9. Πολύμινα πολύμινα. P. Ezekiel, xxvii. 24. בגלוי במכללים
Polymitorum. Vulgate, &c. *Pallis Hyacinthinis, Cblamy-*
dibus coccineis. Chald. Parap.

Of thicker woof, or larger woof than warp. Q.

29. Ἰνδικον μέλαν. P. *Indico*. Salmaf. & Hoffman in voce.

See Pliny, xxxv. 27. Hard. cited by Hoffman, where it is mani-
 festly indico, used both as a colour and a dye.

30. Ἰπποί. *Horses*.

As presents, and as imports into Arabia.

K

31. Κάγκαμος. *Kankamus—Gum Lack*. D. P.

According to Scaliger; and Dioscorides calls it a gum. But Sal-
 mafius rather inclines to think it a drug like myrrh. Lack was used
 as a purple or blue dye by the Indigo dyers. Ἰνδικόβαφοί. Salmas.
 Plin. Exercit. 1148. 1152. Plin. xii. 20. See Pomet's History of
 Drugs, b. viii. p. 199, who says gum of four colours was found in
 one lump. He does not hold it to be Gum Lack, but that it has a
 smell like it; it is found in Africa, Brasil, and Saint Christopher's.
 Pomet's Specimen was from the West Indies.

32. Κάλτις. *Kaltis—A Gold Coin*. P.

According to the Periplús it was a coin of this name current in
 Bengal, and that the metal was collected from a mine in the neigh-
 bourhood. Stuckius says, a coin called Kalais is still current in

Bengal, on what authority does not appear. Paolino notices the word, but I cannot recal the passage to my memory; it is called Kalteen in Bengal, or Kurdeen, in the Aycen Acbari at present. Af. Ref. vol. v. p. 269.

33. Καρδάμμον. *Kardamom.* D.

Both the Amomum and Cardamomum are mentioned in the Digest, and are supposed by Dr. Burgefs to be the same aromatic, and that amomum has the addition of kar, from its resembling an heart, which it does. The doubts of Natural Historians on this subject are numerous, and Salmafius, after much learned disquisition, leaves the question undetermined. (See article Kostamomum.) But the opinion of my friend Dr. B. is this, that the kardamomum differs from the amomum chiefly as to its outward appearance in the shape of the pod or the vessels in which it is contained. The true amomum, he says, is from Java, its pod is in the shape of a nasturtium, under which title it is described by Pliny, while the kardamomum is in the form of an heart. It is brought from Sumatra, Ceylon, and Africa. The Sumatran approaches nearest that of Java, both in shape and flavour, but none of the sorts are equal to the Javan; the flavour is aromatic, warm, and pungent, in which qualities it is resembled by all those species which take the addition of amomum, and I have been favoured with specimens of all the different sorts by Dr. B. Theophrastus says both come from Media; others derive them from India. Martin Virg. eclog. iii. 89. Assyrium amomum, equivalent to Median. Galen says it is considerably warm: *θερμῆς δυναμείως ἰκανῶς*. Stephan. in vocc. The *Καρδάμμον ἡδίων καὶ ἀρωματικώτερον, τῆς θερμῆς δυναμείως ἀσθενεστέρας*. Stephan.

in voce. Warmth and pungency are therefore the qualities of both, and the difference in degree accords with the two specimens of Dr. B. Whether the Greeks first found these in Media and Assyria, or whether there were aromatics in those countries resembling those of India, may still be doubted. The Greeks called cinnamon the produce of Arabia, till they had a knowledge of that country themselves.

Murray, vol. i. p. 65, doubts the origin of the name; for he says, "The Indians call it cardamon, but thinks it very dubious, whether the cardomum of the ancients be the same. The pericarpium of the lesser cardomum has obscurely the shape of a heart. Lewis says it is described in the Hortus Malabaricus under the title of Eleitari." F. F. What is added must compel me to retract my supposition, that amomum expresses warmth and pungency. "Nō tārunt viri docti ἀμμων λιβανῶτον, thus esse et sincerum et inculpatum, veteresque ἀμμων vocāsse omne aroma quod purum et non vitiatum esset. Bodæus a Stapel. Theophrast. p. 981. Stephan. in voce, Ἀμμων." E. F. But in Stevens I find Λιβανός ἀμμώτης, and not ἀμμων λιβανῶτον.

If the opinion of Dr. Burgefs be right, which seems highly probable, and this aromatic be found only in Java and Sumatra, or perhaps in Ceylon, it argues in favour of the Periplus, which is silent upon this subject; for the veracity of the merchant is as much concerned in not noticing what he had not, as in describing what he had seen.

34. *Capilli Indici.* D.

35. *Καρπάσος.*

35. Καρπάσος. *Karbasus*—*Fine Mullins*. D. P.

Opposed to ordinary cottons. It is remarkable that the native Siamkreet term is *Karbas*, as appears by Sir William Jones's catalogue. *Asiat. Ref.* vol. iv. p. 231. Calcutta edition. But how this word found its way into Italy, and became the Latin *Carbasus* (fine linen) is surprizing, when it is not found in the Greek language. The *Καρπάσιον λίνον* of Pausanias (in Atticis), of which the wick was formed for the lamp of Pallas, is Asbestos, so called from *Karbasos*, a city of Crete. *Salm. Pl. Exercit.* p. 178.

Carbaso Indi corpora usque ad pedes velant eorumque rex aurea lectica margaritis circum pendentibus recumbit distinctis auro et purpurâ carbasis qua indutus est. Q. Curtius, lib. viii. c. 9. F.—I owe this passage to Mr. Falconer, and think it may confirm the reading of Salmastius of *Σινδόνας μαργαρίτιδες*, for *Σινδόνας Εβαργίτιδες*. *Peripl.* p. 34. So Lucan also, *Pharf.* iii. 239.

Fluxa coloratis astringunt carbasa gemmis. F. *Karbasium* is a medicinal juice. Dioscor. A poisonous juice. Galen. It is a substitute for cinnamon, or a species of that spice. *Ἀντὶ Κινναμώμου Καρπάσιον.* And *ἄντὶ Κινναμώμου Κασίας τὸ διπλὸν ἢ Καρπάσιον.* The different species are unknown. *Salmast.* p. 1306.—Has *Καρπάσιον* any reference to the *Κάρφη* of Herodotus?

36. Καρυοφυλλον. D. *Garofalo*, It. *Girofle*, Fr. *Clou de Girofle*, Fr.

Our English clove is probably from *clou*, a nail, which the clove resembles, but not without a possibility that it may be a contraction of *girofle*. The *garyophyllon* of Pliny is not the clove. F. F. The clove is a spice of the Moluccas, which is the reason that the
Merchant

Merchant of the Periplûs did not see it or record it; neither do I find it in the catalogue of Dioscorides (Matthioli) as an Oriental spice. It should seem therefore from Pliny, the Periplûs, and Dioscorides, that this spice was not known early to the ancients; and the reason was, because they did not go farther east than Ceylon. Salmasius, however, is of a different opinion, as I learn from Dr. Falconer, who cites his work, De Homonym. Hyles Iatric. c. 95.— which I have not seen: .

Vidit Plinius Caryophyllon quale apud nos frequens visitur cujus in summo clavi capite rotundum extat tuberculum piperis grano simile, sed grandius et fragile, multis veluti fibris intus refertum. Calicem floris esse volunt adhuc conniventem, et nondum apertum, videtur existimasse Plinius esse fructum ipsum pediculo suo insidentem et inhærentem, nam clavus esse plane ligneus, et furculi instar habere ei visus est. . . . Caryophyllam ad condimenta olim usurpatam ut piper et costum, &c. . . ostendunt apicii excerpta; . . . quod dixit Plinius de odore Caryophyllorum fidem facit non alia fuisse ejus ætate cognita quam quæ hodie habentur, &c. Dr. F. is not convinced by Salmasius, and his doubt is well founded. F. F. Cosmas mentions the *Ευλοκαρυφυλλον* at Ceylon, and Hoffman (in voce) informs us, that the wood of the clove-tree is now used in odoriferous compositions and unguents. It is a circumstance in favour of the veracity of the Periplûs, that the Merchant has not recorded this spice; and of Cosmas, that his friend Sopatrus saw only the wood. An hundred years later than the Periplûs, it had found a place in the Digest: the custom-house at Alexandria received not the imports of one merchant only, but every thing that found its way by any conveyance from the East. It ought not to
be

be omitted, "that caryophyllon is possibly not derived from the Greek; for the Turks use the term Kalafur, and the Arabs, Karumfel, for the clove." Nieuhoff. Leg. Batav. vol. ii. p. 93. F. F. Still it may be inquired, whether the Arabic karumfel may not be borrowed from the Greek karuophyl: many Greek terms for plants, drugs, &c. adopted by the Arabs, are noticed by Salmastius.

37. *Karria. Kasia.* D. P.

This spice is mentioned frequently in the Periplus, 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. Their's was the tender shoot of the same plant, and of much higher value, sold at Rome in the proportion of a thousand denarii to fifty; it was found only in the possession of Emperors and Kings; and by them it was distributed in presents to favourites, upon solemn occasions, embassies, &c.

That it was the tender shoot, and not hollow, may be proved from Pliny, lib. xii. 19, where he informs us that Vespasian was the first that dedicated crowns of cinnamon inclosed in gold filagree (auro in-terrasili) in the Capitol, and the Temple of Peace; and that Livia dedicated the root in the Palatine Temple of Augustus; after which he adds, that the casia is of a larger size than the cinnamon (crassiore sarmento), and has a thin rind rather than a bark, and its value consists in being *hollowed out* (exinaniri pretium est). He adds, that the best sort has a short pipe of this rind or coating (brevi tunicarum

" Pliny.

filulâ et non fragili, lege et fragili); this *Casia* is manifestly a *Cinnamon*, and by consulting the two chapters of *Dioscorides* on *Casia* and *Cinnamon*, the best *casia* called *Daphnitis*, at *Alexandria*, is doubtless the same. *Matthioli*, p. 42; and again his *cinnamon* is, "*sottile di rami*," a very fine spray, with frequent knots, and smooth between the joints. *Salmasius* cites *Galen*, who compares the *Karpasium τοῖς Κινναμόμῳ ἀκρέμοσι*, to the extreme shoot or spray of *cinnamon*, and *ἀκρέμοσι* is so peculiarly expressive of this, as to remove all doubt, (p. 1304, *Plin. Ex.*) but if our *cinnamon* is the ancient *casia*, our *casia* is again an inferior sort of *cinnamon*; both are known to our druggists and grocers; and since the conquest of *Ceylon*, the duty is lowered on our *cinnamon*, and raised on our *casia*. The reason of which is plain; because the true and best *cinnamon* is wholly our own by the possession of *Ceylon*, and *casia* is procurable from *Sumatra*, and several of the eastern isles. (See *Marsden's Sumatra*, p. 125.) It is plain, therefore, that we adopt *cinnamon* for the *casia* of the ancients, and *casia* for an inferior *cinnamon*. Whether the *cinnamon* and *casia* of the ancients were both from the same plant, may be doubted; for there are different species even of the best sorts, as we learn from *Thunberg*; but that both had the same virtue, though not equal in degree, we are assured by *Galen*, who informs us, that two parts of *casia* are equal to one of *cinnamon*. (*Matthioli*, p. 46.) And *Galen* examined both when he composed the *Theriac* for the emperor *Severus*.

I am confirmed in the opinion I had formed by *Dr. Falconer*, who (after citing *Linnaeus*, *Combes*, *Philos. Transact.* 1780, p. 873.; *Dossie's Memoirs of Agriculture*, p. 202.; *Solander*; *Thunberg*, *Vet. Acad. Hanbl.* 1780, p. 56.; and *Murray*, *Apparat. Med.* vol. iv. pp. 441, 442. edit. *Gotting.* 1787) writes thus: "I myself

“ compared two bundles, one of casia and another of cinnamon, and in presence of all the physicians and surgeons of the General Hospital at this place [Bath], and none of us could find any difference in the size of the pieces, in the taste, flavour, colour, or smell of the different articles, either in quality or degree.” These are the two species as now distinguished; that is, the cinnamon of Ceylon, and the casia (say) of Sumatra. He then adds: “ Perhaps it may be true that the small branches were called cinnamon [by the ancients], but the difference between that and casia was small. Galenus palam prodit (inquit Matthioli in Dioscoridem) cassiam sæpe numero in cinnamomum transmutari, fate-turque se vidisse cassiæ ramulos omni ex parte cinnamomum referentes, contra pariter inspexisse cinnamomi furculos cassiæ profusos per similes. Matthiol. Dioscor. p. 34. he says, the sticks of cinnamon are not in length above half a Roman foot; and Dioscorides, in Matthioli’s translation, uses the words tenuibus ramulis.” F. F.—See also Larcher, Herod. tom. iii. p. 375. who supposes that the excess of price in the spray, was occasioned by its causing the destruction of the plant when so cut.

This sort we must first consider, because they themselves applied the name improperly, having it derived, by their own account, from the Phœnicians¹³, and giving it to the same production, though in a different form and appearance from that by which it is known to us.

The kinnamomum of the Greeks and Romans was necessarily derived from the Phœnician¹⁴, because the merchants of that country first brought it into Greece. The Greeks themselves had no direct

¹³ Herodotus, lib. iii. p. 252. ed. Weff.

¹⁴ See a curious mistake of Pliny’s noticed

by Larcher, of turning the Phœnicians into a phœnix. Tom. iii. p. 349.

communication with the east; and whether this spice was brought into Persia¹⁵ by means of the northern caravans, or by sea into Arabia, the intermediate carriers between either country and Greece were of course Phœnicians. It will therefore be no difficult matter to prove that the Phœnician term expresses the cinnamon we have, and not that indicated by the Greeks and Romans. The term in all these languages signifies a pipe; for the Hebrew קנה kheneh is the Latin canna; and syrinx, fistula, cannella, and cannelle, convey the same idea in Greek, Latin, Italian, and French. The Hebrew term occurs in Exodus, xxx. 23, 24. joined with casia, as it is almost universally in the writings of the Greeks and Romans. It is styled Sweet Cinnamon, and is written קנה בשם¹⁶, khinemon besem, the sweet or sweet-scented pipe; and the word rendered Casia by our translators¹⁷ is קרה khiddah, from khadh, to split or divide longways. These two terms mark the principal distinctions of this spice in all these languages; as khinemon besem, Hebrew; casia syrinx, Greek; casia fistula¹⁸, Latin; cannelle, French; and

¹⁵ By Persia is meant the whole empire.

¹⁶ The whole 30th chapter is worth consulting on this curious subject, as it proves that many of the Oriental spices and odours were, even in that early age, familiar in Egypt.

¹⁷ If from this chapter of Exodus we prove that cinnamon was known to the Hebrews in the age of Moses, we have a second proof of its being used in the embalmment of the mummies from Diodorus, lib. i. 91. tom. i. p. 102. Larcher, tom. ii. p. 334.

¹⁸ The casia fistula of the moderns is a drug totally distinct: it is a species of senna which comes from the Levant, Egypt, Brasil, and the Antilles, and is a corruption from Acacia.

Salm. Plin. Ex. p. 540. Certe casia nomen pro ea specie que solvit alvum ex *Acacia* factum quamvis diversum sit genus. Id. p. 1056. This corruption is not of very modern date; for Salmasius adds, Ut mirum sit ante hos trecentos et amplius annos, casiam fistulam Latinis dictam, eam que purgandi vim habet. See also Ramusio, vol. i. p. 282.

Mr. Falconer doubts concerning the casia fistula, but acknowledges that Bodæus on Theophrastus, p. 293. is of a contrary opinion. F. I cannot help thinking that the authorities here produced, in conformity to Bodæus, must preponderate.

in the same manner the inferior sort is khiddah, Hebrew; xylo-casia", Greek; casia lignea, Latin.

Whether the Greeks and Latins derive their term from the Hebrew khine-mon", or from the compound kheneh-amomum, is not so easy to determine; for amomum is a general term" for any warm drug or spice, and kin-amomum, in this form, would be again the spice-canna, the casia fistula under another description. But that the casia fistula and the casia lignea are marked as the two leading distinct species, from the time of Moses to the present hour, is self-evident. And I now say, that if the Romans applied the term Cinnamon to the tender shoot of this plant, and not to the pipe cinnamon, such as we now have it from Ceylon, their use of the word was improper. That this was the case, there is reason to think; but that there was some obscurity or fluctuation in their usage, is certain also.

Salmasius" quotes Galen to prove that the plant itself was brought to the emperor Marcus Aurelius, from Barbarikè", in a case seven

" This species is distinctly marked in the Roman Law de publicanis, leg. xvi. D. Casisyrinx, Xylo-casia. Salm. 1055. id. in Canticis Salomonis, Nardus, Crocus, Fistula cinnamomum. It is called Σαλαριερά, Hard Casia, in the Periplus.

" קננין is from קנה, a reed, canna, and the termination doubtful, but probably from קנה, peculiar. It is in this sense that קנה, manna, signifies the food from Heaven; the peculiar food or bread. And hence קנה, the peculiar canna, by way of pre-eminence. Parkhurst derives it not from קנה, canna, but from קנה, khanani, to smell strong, but he allows there is no such verb in Hebrew.

I cannot help thinking that קנה, kheneh beseh, and קנה, khinnemon beseh, have the same root. The sweet kheneh, the sweet khinnemon. Notwithstanding kheneh beseh is rendered calami odoriferi, the sweet calamus, it is certainly not technically the calamus aromaticus.

" Salm 401.

" Plin. Ex. p. 1304. Galen de Antidotis, lib. i.

" Barbarikè is perhaps not a proper name, but the port frequented by the Barbaras of Adel or Mosyllon. It is the mart in Scindia; but whether Patala or Minnagar, is difficult to determine.

feet long. Galen saw this, and there were other cafes of a smaller size, containing specimens of an inferior sort. This, therefore, must be in a dry state; but this he says was the true cinnamon. Undoubtedly it was, for the plant itself, and the spice, as we have it, in its usual form, have this difference and no more. But Galen says, in another passage²⁴, that casia and cinnamon are so much alike that it is not an easy matter to distinguish one from the other. And Dioscorides writes, "Casia grows in Arabia; the best sort is red, of a fine colour, almost approaching to coral, strait, long, and pipy, it bites upon the palate with a slight sensation of heat, and the best sort is that called Zigir, with a scent like a rose." This is manifestly the cinnamon we have at this day; but he adds, "cinnamon has many names, from the different places where it [is procured or] grows. But the best sort is that which is like the casia of Mosyllon, and this cinnamon is called Mosyllitic, as well as the casia." This therefore is only a different sort of the same spice, but it does not grow either in Arabia or at Mosyllon, it took its name from either country, as procured in the parts of either. This traffic is explained in the *Periplus*, but Dioscorides was unacquainted with it. The description²⁵ he gives of this cinnamon is, "That when fresh, and in its greatest perfection, it is of a dark colour, something between the colour of wine and [dark] ash, like a small twig or spray full of knots, and very odoriferous." This is manifestly not our cinnamon, but the same as Galen's, the tender shoot and not the bark. It is worth remarking that Dioscorides lived in the reign of Nero²⁶, and if the true source of cinna-

²⁴ See Ramusio, vol. i. p. 282. The whole of this is from Ramusio.

p. 3. 8. He is equally indebted to Salmasius as myself.

²⁵ See Larcher's whole Dissertation, tom. iii.

²⁶ Hoffmann in voce.

mon was then just beginning to be known by means of the navigation detailed in the *Periplus*, this knowledge had not yet reached Asia²⁷ Minor or Rome. Pliny who lived a few years later had just arrived at this information, for he says expressly, Mofyllon was the port to which cinnamon was *brought*²⁸, and consequently the port where it was procured by the Greeks from Egypt, and through Egypt conveyed to Rome. It had long been procured there, and long obtained the name of Mofyllitic, but it was now known not to be native, but imported at that place.

The trade to Mofyllon was opened by the Ptolemies; still, before the existence of a Grecian power in Egypt, the Greeks had probably little knowledge of it, but from the importation of it by the Phœnicians; and the Phœnicians received it, either by land-carriage from the Idumeans of Arabia, or when they navigated the Red Sea themselves with the fleets of Solomon, they obtained it immediately from Sabœa; perhaps also, if Ophir is Sofala on the coast of Africa, they found it either at that port, or at the others, which the Greeks afterwards frequented. These lay chiefly in Barbaria, (the kingdom of Adel,) comprehending the ports of Mofyllon, Malao, and Mundus, where it was possibly always to be met with. This commerce indeed is at best only conjectural, neither could it be of long duration, as it ended with the reign of Solomon, and was never resumed; but that the Phœnicians had a settled intercourse with Sabœa we learn incontrovertibly from Ezekiel²⁹, and that Sabœa was the centre of Oriental commerce, is proved in our account of the *Periplus*.

²⁷ Dioscorides was a native of Anazarba; but whether he wrote there or at Rome, I have not been able to discover.

²⁸ *Portus Mofyllites quo cinnamomum devehitur.* Lib. vi. c. 29.

²⁹ Cap. xxvii. v. 23. Sheba is Sabœa.

It is this circumstance that induced all the early writers to impute the produce of India to the soil of Arabia; an error which commenced with the first historians extant, and which existed in history till the age of Pliny, and in poetry almost to the present hour. Fable is the legitimate progeny of ignorance; we are not to wonder, therefore, when we read in Herodotus²⁹, that casia grew in Arabia, but that cinnamon was brought thither by birds from the country where Bacchus was born, that is India. The term used by Herodotus indicates the cinnamon we now have; for it signifies the peel, hull, or rind³⁰ of a plant, and evidently points out the bark, under which form we still receive this spice. The error of Herodotus is repeated by Theophrastus, who assigns both casia and cinnamon to Arabia³¹: this intelligence I receive from Bochart; and I am obliged to him also for a very curious citation from Uranius, in Stephanus de Urbibus, who says, the country of the Abasenes produces myrrh, aromatic gums or odours, frankincense, and the bark [of cinnamon]³². This passage is valuable as the first instance extant in which the name of Abyssinians is mentioned. But it is not to be depended on, unless it can be referred to the conquests of that nation in Arabia, for these Abaseni are evidently joined with the Arabians of Sabæa and Hadramaut.

But whatever errors are to be found in ancient authors, relative to the production of spices in general, and cinnamon in particular,

²⁹ Lib. iii. p. 252. ed. Weff. and p. 250. where he mentions a similar fable of serpents which guard the frankincense.

³⁰ Κάστω, from Κάστω, arefacio, to dry; and hence the dry hull, peel, or shell of a plant or fruit.

³¹ Bochart, vol. i. p. 105. Sir William

Jones, Af. Res. iv. 110. 113.

³² Ἡ χώρα τῶν Ἀβασενῶν φέρει καὶ ὄστρον [quod ὄστρον] καὶ θυμίαμα καὶ ΚΕΡΤΙΛΑΓΟΝ. Bochart, vol. i. p. 106. Κίτριον is probably the Κάστω of Herodotus, unless it is a false reading for Κάστω or Κάστωον, one of the terms for cotton.

still that they found their way into Egypt, Palestine, Greece, and all the countries bordering on the Mediterranean, in the earliest ages, is a fact. This admits of proof from the thirtieth chapter of Exodus, and we have traced the course of their introduction in the preliminary disquisitions of the first book.

We may now, therefore, proceed to examine the various sorts of this spice mentioned in the *Periplûs*, which amount to ten; and very remarkable it is, that the modern enumeration of professor Thunberg should comprehend just as many species. Not that it is to be supposed the species correspond, but the coincidence of number is extraordinary. It is worthy of notice also, that cinnamon is a term never used in the *Periplûs*; the merchant dealt only in cassia; cinnamon was a gift for princes. There is, even in this minute circumstance, a presumption in favour of his veracity, not to be passed without observation.

It has been already mentioned in the account of Ceylon, that the ancients, who first referred this spice to Arabia, and afterwards to the cinnamomifera regio in Africa, as supposing it to grow in those countries because they procured it there, never mention it in Ceylon. I think, with Sir William Jones, that this is one of the obscurest circumstances in ancient commerce. Can we conceive that it grew there in any age, and was afterwards eradicated? or must we not rather conclude, in conformity to the suffrages of all the moderns, that there is no genuine cinnamon but that of Ceylon, and that the commerce itself was a mystery? The first author that mentions cinnamon in Ceylon is the Scholiast on Dionysius Periegetes; at least I have met with no other, and I mention it to promote the inquiry.

The ten forts in the Periplus are,

I. Μοσυλλιτικὴ. *Mosyllitick*. P.

So called from the port Mofyllon, where it was obtained by the Greeks from Egypt, and whither they always-returned, from their first passing the Straits of Bab-el-Mandeb. It was the casia fistula; the same as we now have from Ceylon, and imported at Mofyllon directly from India, or from the Arabian marts on the ocean, which were rivals of the Sabæans. It is mentioned by several authors as the best sort, or inferior only to zigeir, and therefore could not be native: there is indeed cinnamon on the coast of Africa, but it is hard, woody²⁴, and of little flavour. The regio cinnamomifera of Ptolemy bears no other sort but this: he places this tract at the boundary of his knowledge, that is, between Melinda and Mofambique; and if it is in any way entitled to the name, it cannot be from its own produce, but on account of the importation of the spice from India; the traders who found it there, might suppose it native, in the same manner as the early writers speak of the Mosyllitic, and which (as has been already noticed) Pliny first mentions as imported. The Mosyllitic species is rarely called cinnamon by the ancients, but casia only. Their cinnamon was exhibited as a rarity, like that of Marcus Aurelius before mentioned. Antiochus Epiphanes²⁵ carried a few boxes of it in a triumphal procession; and Seleucus Callinicus presented two minæ of this species, and two of casia, as the gift of a king to the Milcians. The casia, or modern

²⁴ Seven different sorts Oriental, and two American, I have seen in the collection of Dr. Bergers; and an African species, which is not a bark, but a mere stick, with little flavour. It answers well to the character of *σαλλιστικὴ*.
²⁵ Athenæus, lib. v. p. 195. lib. ix. p. 403.

cinnamon was found formerly in Java, Sumatra, and the coast of Malabar; from the coast of Malabar it found its way to Africa and Arabia; but when the Dutch were masters of Cochin¹⁰, they destroyed all the plants on the coast, in order to secure the monopoly to Ceylon; and none is now met with on the coast, but an inferior wild sort, used by the natives, and brought sometimes to Europe for the purpose of adulteration.

2. Γίγειρ, Ζίγειρ, Γίσι. *Gizeir, Zizeir, Gisi.* P.

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that *zizeir*, in Persian and Arabic, as I am informed, signifies *small*¹¹. The smaller bark must of course be from the smaller and tenderer shoots, which is still esteemed the best; the harder and thicker bark is cut and made to roll up in imitation of this, but is inferior, though from the same plant. This at least is supposed; but I do not speak from authority.

3. Ἀσύφη. *Asuphè.* P. *Alyphemo* in Matthioli, p. 42. Perhaps for Ἀσύφηλος.

This term, if not Oriental, is from the Greek ἀσύφηλος, *asuphèlos*, signifying *cheap* or *ordinary*; but we do not find *asuphè* 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.

¹⁰ The Dutch are accused of this by their rivals, as well as diminishing the growth of nutmegs, &c. in the Molucca Islands. But I observe in the account of Hugh Boyd's Embassy to Ceylon (Ind. Annual Register, 1799), an assertion, that the true cinnamon never grew

any where but in Ceylon.

¹¹ I doubt this relation at the same time I notice it; but an inquiry might still be made, whether the Greek term *zafsa* be not a corruption of *gisi*.

A P P E N D I X.

4. Ἄρωμα. *Aroma*. D. P.

Aroma is the general name for any warm spice or drug; but it is twice inserted in a list of casias, and is therefore probably a species as well as the others. It would intimate an aromatic smell or flavour, and is possibly one of superior quality. It is remarkable that Moses uses the same term of sweet-scented cinnamon.

5. Μώγλα. *Mōgla*. P.

A species unknown.

6. Μοτώ. *Motō*. P.

A species unknown.

7. Σκληροτέρα. *Sclerotera*. D. P. *Xylo Cassia*, *Wood Cinnamon*. D.

From the Greek Σκληρός, hard. This is a term which occurs frequently, and perhaps distinguishes the casia lignea (wood cinnamon) from the casia fistula (cannelle or pipe cinnamon): it may, however, signify only a hard and inferior sort, in opposition to brittleness, which is one of the characters of the superior species.

8, 9, 10. Δάακα, Κιττά, Δάκας. *Dosaka*, *Kitta*, *Dacar*. P.

Dacar is noticed by Dioscorides, Matthioli, p. 42. and *Moto* by Galen. F.

All unknown. But Salmasius, and other commentators, agree in supposing them all to be species of the same spice.

Under *Cassia*, in the Digest, are mentioned,

1. *Turiana* vel *Thymiana*, and
2. *Xylo Cassia*.

Turians and Thymiana are expressions for the same thing in Latin and Greek—Incense. Cassia was mixed perhaps with incense in the temples, as well as other aromatic gums and odours. See Hoffinan in Thymiana. But Dr. Falconer supposes these not to be different species of cassia, or mixtures with it, but simply thus and thymiana; which, however, xylo cassia seems to contradict. He thinks also, “that turiana may be the laurus cassia which grows in Spain, on the river Turia or Guadalaviar.”

“Floribus et roseis formosus Turia ripis.”

Claudian de Laudibus Serenæ, 72.

These are the ten sorts enumerated in the Periplus³⁸. Professor Thunberg, who visited Ceylon in his voyage from Batavia, reckons ten sorts likewise. Four of nearly equal value and excellence; three that are found only in the interior above the Ghauts³⁹, in the government of the king of Candi; and three which are not worth gathering. The most remarkable which he mentions are:

The raffe⁴⁰ or penni-curundu, honey cinnamon, and capuru curundu, or camphor cinnamon, from the root of which camphor is distilled: this last is found only in the interior. The cinnamon for the European market was collected in the woods by the natives employed in the Dutch service, but has since been planted on the sandy downs on the coast. These plantations, besides their convenience, are so thriving, that the practice is likely to be continued. Can I conclude this account without observing, that this rich and

³⁸ Two other sorts may be collected from Galen; Arebo, and Daphnite. Larcher, Herod. vol. iii. p. 345.

³⁹ I use the term improperly, but Ceylon partakes of the nature of the continent—the

coast is a level, the interior is high and table land. All above the mountains is still possessed by the king of Candi; the Dutch had, and English have, only the coast.

⁴⁰ See Knox's History of Ceylon, p. 16.

valuable island is now in the possession of the English; and without a prayer, that the commerce may be conducted on more liberal principles, and the natives treated more generously by them than by their predecessors? The knowledge which the ancients had of this island is treated at large in the Sequel to the Periplus; and it is to be hoped that the present governor, Frederick North, whose mind is stored with ancient knowledge, and whose attention is alive to modern information, will communicate his researches to the public.

I have only to add, that the Sanskreet names of this spice are Savernaca and Ourana, as I learn from the Asiatick Researches, vol. iv. p. 235.; and that Salmasius mentions Salihaca as the Arabic appellation, which he derives from the Greek *Ξυλική*, lignea, or woody (p. 1306.), but which, if I did not pay great respect to his authority, I should rather derive from Salikè, the Greek name of the island in the age of Ptolemy.—I have now only to request that this detail, too prolix for the work, may be accepted by the reader, not as the natural, but the classical history of cinnamon.

38. *Κασσίτερος. Tin. P.*

Tin is mentioned as an import into Africa, Arabia, Scindi, and the Coast of Malabar. It has continued an article of commerce brought out of Britain in all ages, conveyed to all the countries on the Mediterranean, by the Phœnicians, Greeks, and Romans, and carried into the Eastern Ocean, from the origin of the commerce. It is only within these few years it has found its way into China in British vessels, where it is now become an article of such magnitude, as greatly to diminish the quantity of specie necessary for that market.

39. Καττυβρίνη, Πατροπαπίγη, Καθαλίτη. *Kattybriñe, Patropapigè, Kabalitè*. Peripl. p. 28.

Different species of nard. See Νάρδος. P.

40. Καννάκαι ἀπλοῖ ἢ πολλῶ. *Kannakai*. P.

Coverlids plain, of *no great value* (or, according to another reading, *not many*), with the nap on one side. Hesychius and Phavorinus, cited by Hudson.

41. *Ceraunium*. D. A gem.

Salmasius says there are two sorts :

1. A pure chrysol.
2. Another red, like a carbuncle.

He thinks the chrysol to be the true *ceraunium* ; and that Claudian is mistaken when he writes,

Pyreneisque sub antris
Igneae fulmineae legere Ceraunia nymphae.

42. Κολανθίδφωνα. *Kolanthiphonta*. P.

Large ships on the coast of Coromandel, in which the natives traded to Bengal and Malacca. They had vessels also called *sangara*, made of one piece of timber, which they used in their commerce on the coast of Malabar. The *monoxyla* of Pliny were employed in bringing the pepper down the rivers to the coast. Lib. vi. 23.

43. Κοράλιον. *Coral*. P.

44. Κόστος*. *Costus, Costum*. D. P.

Is considered as a spice and aromatic by Pliny, lib. xiii. c. 12.

* It is worthy of remark, that in the enumeration of gifts made by Seleucus Callinicus to the Milesians, there should be this distinction :
Frankincense - - - 10 talents.

It is called radix, *the root*, pre-eminently, as nard is styled *the leaf*. Costus being, as we may suppose, the best of aromatic *roots*, as nard or spikenard was the best of aromatic *plants*. This supposition explains a much-disputed passage of Pliny. Radix et folium ⁴² Indis est maximo pretio: the (root) costus, and the (leaf) spikenard, are of the highest value in India. Radix costi gustu fervens, odore eximio, frutice alias inutili: the root of the costus is hot to the taste, and of consummate fragrance; but the plant itself, in other respects, without use or value. It is found at the head of the Pattalène, where the Indus first divides to inclose the Delta; of two sorts, black and white, the black is the inferior sort, and the white best. Its value is sixteen denarii ⁴³, about twelve shillings and eight pence a pound.—Thus having discussed the costus or root, he proceeds to the leaf or plant: De folio nardi plura dici par est; but of this hereafter. It is here only mentioned to give the true meaning of the passage.

This root is said, by Salmafus, to grow in Arabia as well as India; and I do not find that it has acquired any European name, though it was formerly much used in medicine, and called the Arabian, or true costus. It is confounded by Gothofred, first with costamomum, which he derives from Mount Amanus, and secondly, with carda-

Myrrh	- - -	1 talent.
Casia	- - -	2 pounds.
Cinnamon	- - -	2 pounds.
Costus	- - -	1 pound.

The reason is evident; frankincense and myrrh were procurable in Arabia, which bordered on his own kingdom. Casia, cinnamon, and costus, were East India commodities. See Chishull, Antiq. Asiat. p. 71.

⁴² But *the leaf* is applied pre-eminently to the betel in India to this day. See Herbelot

in voce. Son nom le plus commun est Betré ou Betlé, dont le premier se prononce aussi barra, qui signifie chez les Indiens, en general la feuille de quelque plante, et qui s'applique par excellence à la feuille de Tembul, en particulier.

Pliny has applied the leaf *par excellence* to the nard, and then confounded several properties of the betel with it. See Νάρδος.

⁴³ The numbers in Pliny are dubious.

raomum. (See Salm. p. 400. & seqq.) I have supposed that amomum, as it is found in cinn-amomum, carda-momum, and cost-amomum, implies the warmth and gentle pungency of an aromatic; for the amomum itself, if we know what it is, is of a hot, spicy, pungent taste. (Chambers's Dict. in voce.) But Salmasius and Hoffman seem to trace it to a Greek origin (*ἀμωμῶδες*, inculpatus), and to signify unadulterated. They apply it likewise to momia or mumia, because the amomum was particularly used to preserve the body from putrefaction. It was found in India and Syria, but the best in Arabia (imported?). The Arabian is white, sweet, light of weight, and fragrant; the Syrian is heavier, pale, and strong scented. Gothofred, from Isid. xvii. 9. Dioscorid. lib. i. c. 14. Plin. i. 2. and xii. 24. Dioscorides says it grows in Armenia, Media, and Pontus, c. 14.; but the whole account is very dubious; all speak of its warmth and pungency; but let us apply this to the costus, which, in regard to its unadulterated state, and its qualities, is still much questioned: its properties are—"I. Fragrance: *Odorum causa unguentorumque et deliciarum, si placet etiam superstitionis gratia emuntur quoniam thure supplicamus et costo.* Plin. xxii. 24. *Costum molle date et blandi mihi thuris odores. Ure puer costum Assyrium redolentibus aris.* Propert. lib. iv. *Πλειστην εχων και ηδειαν σμηνην* Dios.—II. Pungency; both costus and costamomum are said to be of a warm, pungent quality: *Πλειστης δε της θριμειας και θερμης μετεχει ποιητατος και δυναμειως.* Galen. *Gustu fervens*, Pliny.—It is mentioned in the Geoponica, as one of the ingredients for making the spiced wine, called *πανακεια*. Lib. vii. c. 13. But the best writers on the costus of the ancients think it is not ascertained." F. F. Pseudocostus nascitur in Gargano Apulix monte.—Of the costus brought from the East Indies there are two sorts, but seldom

more than one is found in the shops, *costus dulcis officinarum*: this root is the size of a finger, consists of a yellowish woody part inclosed within a whitish bark the cortical part is brittle, warm, bitterish, and aromatic, of an agreeable smell, resembling violets or Florentine orris. New Dispensatory.—It always contracts a bitterness, and grows black by keeping, which probably accounts for the white being more valuable (as Pliny says), because it is fresh. M. Geoffroi, a French academician, mentioned under this article in Chambers's Dictionary, considers it as the European *elacampane* root, which, he asserts, when well fed and prepared, has the properties of the Indian aromatic.

Costus corticosus, bark *costus*, has a scent of cinnamon.

45. *Κυπερος*. P. *Cyperus*.

An aromatic rush. (Plin. xxi. 18. Matthioli in Dioscor. p. 26.) It is of use in medicine. The best from the Oasis of Ammon, the second from Rhodes, the third from Thrace, and the fourth from Egypt. It is a different plant from the *Cypirus*, which comes from India. See Hoffman. Chambers.

Λ

46. *Λάδαρον*** . D. P.

A gum or resin, from a plant called *leda*, *lada*, or *ledum*, a species of *cistus*. It is of a black colour, from Arabia; the East India sort is very heavy, and like a grit-stone in appearance. Dr. Burgefs

** Herod. lib. iii. p. 253. where he says, grant, odorific gum. See Larcher, Herod. it is collected from goats' beards, a most fra- tom. iii. p. 350.

informs me that it is adulterated with pitch from Pegu. It is collected in Crete from the beards of goats. Plin. xxvi. 8. And Tournefort saw it obtained from the thongs of whips lashed over the plants in the same island. It is likewise obtained by a bow-string bound with wool, to which the lanugo adheres. F.

47. Λάκος χρομένεος. *Lacus*. *Coloured Lack*. D. P.

Is a gum adhering to the small branches of trees, supposed to be deposited by an insect. When taken off and melted it is reddish, formed into granulated seed, in which form it is used as lack for japanning; or into shell-lack for sealing wax. Pomet. b. viii. p. 200.

A dye of the red purple (according to Ramusio, pref. to the *Periplus*, *lacco de tingere*); but Salmasius, Plin. Exercit. p. 1160, says it is a cloth of this colour.

48. *Lasfer*. *Benzoin*. D.

“ This appears to be the silphium found in Syria, Armenia, and Africa Dioscor. iii. 79. *Lasfer est liquor seu lacryma*, Græcis *λασφεος*, Latinis *lasfer* nominatur. Matthioli, Dioscor. in voce. That is the inspissated juice. The stalk was called silphium; the root, *magudaris*; the leaves, *maspeton*. Theophrast. vi. 3. The *Σιφίον καυλος ἢ σπος* are mentioned by Hippocrates even as articles of food, and said to be taken largely by some, but with caution, because it was apt to remain long in the body of those unaccustomed to it. Theophrastus mentions the stalk as food; Apicius states it among the condiments of the table: *Porcus lasaratus*, *hædus lasaratus*. Perfumes were formerly used in England with meat; the nobility were made sick with the perfumed viands of Cardinal Wolfey.” F. F.—The country most famous for producing

it was Cyrenè in Africa, where it was so much a staple commodity, that the Cyrenian coins were marked with the sulphur. It is now brought from Siam and Sumatra; is used in medicine and cosmetics. See Chambers in voce, and Gothofred, who cites Columella, vi. 17. Ibid. xvii. 9. It is vulgarly called Gum Benjamin. Pliny mentions it inter eximia naturæ dona, xxii. 23.

49. Λέντια. *Linen, from the Latin linica. See Ιμανισμός. P.*

50. Λίβανος. *Frankincense. D. P.*

51. Λίβανος ὁ περσικὸς. *From beyond the Straits of Bab-el-Mandeb. P.*

A gum or resin sufficiently common in Europe still; originally introduced from Arabia only, and used by the nations on the Mediterranean under the denomination of thus and libanus which are synonymous. Its name is derived from לבן, laban, white, Heb. and لوبان, loban, Arabic, because the purest sort is white⁴⁶ without mixture. See Bochart, tom. i. p. 106. Hence libanus and the corrupt olibanum. M. Polo calls it *encens blanc*. Bergeron's Col. p. 153. It was chiefly brought from Hadramaut or Sagar, a tract of Arabia on the ocean. The best sort is likewise in small round grains called χόνδρος, from the Arabic كندر, chonder. Bochart, ibid. But Niebuhr says, that the libanus of Arabia at present is greatly inferior to that brought from India, as being foul, mixed with sand and stones; he adds also, that the plant which produces it, though cultivated at Keschin and Schahr (Sagar) is not native, but originally from Abyssinia. See Niebuhr. Arabia, tom. i. p. 202. ii.

⁴⁶ Olibanus, oleum Libani.

⁴⁶ It grows yellow by keeping. Dr. Bur-

gefs has many specimens of Arabian libanus.

p. 131, in which opinion he is supported by Bruce. The Arabians paid a thousand talents of frankincense by way of tribute to Persia. Plin. xii. 17. Herodot. When Niebuhr was in Arabia, the English traders called the Arabian sort incense of frankincense, and the Indian or better sort, benzoin, and the worst benzoin was esteemed more than the best incense. The Arabs themselves preferred the Indian to their own, and called it bachor Java, either because it grew in that island, or was imported from Batavia. See also d'Anville, Georg. Anc. tom. ii. p. 223.

52. Λιθίας Ἰαλῆς πλείονα γίνη ἐξ ἄλλης Μυρρῖνης τῆς γενομένης ἐν Διοσπόλει. *Glass and Porcelane made at Diospolis.* P.

1st. Lithia Hyala. Several sorts of glass, paste, or chrystal.
See article Λιθία διαφανής.

2d. Λιθία Μυρρῖνη. P.

Which Salmasius says, ought always to be written murrina, not myrrhina, myrrina, murrhina, or murrina. And he maintains that it is certainly the Oriental porcelane. It is here evidently joined as the adjective to Λιθία, as it is afterwards (p. 28. Peripl.) mentioned with Λιθία ὀνυχίνη, and connected in a similar manner, Λιθία ὀνυχίνη ἐξ Μυρρῖνης, where it is specified as brought down from the capital of Guzerat, Ozēnē, (Ougein,) to the port of Barygáza or Baroach. All this seems to confirm the opinion that it was porcelane procurable in India at that time, as it now is; and that it was brought into Egypt by the ships that went to India. But what is more extraordinary is, that it was imitated in the manufactories of Diospolis in Egypt, just as our European porcelane is now formed upon the pattern of the Chinese.

But

But in opposition to this opinion, Mr. Dutens, under the article *Sardonyx*, supposes that stone employed and cut, to form the *Murrhina*, on account of its beauty, and the great number of strata in a small compass, that the *Sardonyx* was formed into small vases, as well as various sorts of agates, there can be little doubt; but why after cutting, it should lose the name of *sardonyx*, and take that of *murrhina*, is still to be explained; and how they should be baked in Parthian furnaces, or imitated at Diospolis, must likewise be inquired. The best argument in favour of Mr. Dutens' opinion, is, the connecting it with *δουρίνη* in the invoice of the *Periplus*, *λίθια δουρίνη καὶ Μυρρίνη*, and *Lampridius* likewise says of *Heliogabalus*, as cited by *Gesner*, *myrrhinis et onychinis mixxit*. These instances are so strong, that if the other qualities attributed to this precious commodity could be accounted for, and rendered consistent, the suffrage of a writer so intelligent and well informed, ought to prevail. *Gesner* produces a variety of authorities from *Jo. Frid. Christius*, which confirm this opinion of Mr. Dutens, or at least prove it a fossil. The principal one is from *Pliny*, xxxvii. 2, and xxxiii. *proem*. *ChrySTALLINA et myrrhina ex eadem terra fodimus*, so that it is positively asserted to be a fossil from *Karmania*; while the colours assigned to it, of purple, blue and white, with the variegated reflexion from the mixture, suit much better with porcelain. *Martial* styles it *myrrhina picta*, xiii. p. 110, and notices it as capable of containing hot liquors, a property in which it seems opposed to glass or crystal.

Si calidum potes ardenti murra Falerno
Convenit, et melior fit sapor inde mero.

The *sapor* here, and the *odor* mentioned by others, suit the *sardonyx* no better than porcelain; but the testimony of *Propertius* is

as direct to prove it factitious, as that of Pliny to prove it a fossil.

Murreaque in Parthis pecula coëta facis, iv. 5. 26.

And to resist this evidence, Christius contends, that the Murrea are not the same as Myrrhina; but an imitation like the Diospolite manufactory. I am by no means qualified to decide in this dispute, where the difficulties on either side seem unformountable; but as my own opinion inclines rather in favour of porcelain, I will state my reason plainly, and leave the determination to those who are better informed.

Porcelane, though it is factitious, and not a fossil, is composed of two materials which are fossil, the petuntze and the clay. The former, the Chinese call the bones, and the latter the flesh. The place of petuntze is supplied, in our European imitations, by flints reduced to an impalpable powder; and the vitrification of the petuntze or the flints in the furnace, gives to porcelain that degree of translucency it possesses. The petuntze is supposed to be found of late in England. Now it is a well known fact, that the ancient composition of porcelain in China, was said to be prepared for the son by the father, and to lie buried for several years before it was prepared for the furnace, and the inferiority of the modern porcelain, is thought, by the Chinese connoisseurs, to arise from the neglect of this practice. May not this have given rise to the opinion that the murrhina were a fossil production?

Another consideration arises from the words employed by Pliny to express the murrhine vessels, which are *capis* and *abacus*, signifying, if Hardouin be correct, literally, the cup and saucer, and the *capis* which was a vessel used in sacrifices, was regularly a vas fictile.

But

But the last circumstance I shall mention is, the size of that murrhine vessel mentioned by Pliny, which contained three pints (sex-tarios). Can it be supposed that a sardonix was ever seen of this size? he adds indeed afterwards, *amplitudine nusquam parvos excedunt abacos*, which, to make it consistent, must be qualified with the exception of the former vessel that contained three pints. He has other particulars which lead us again to porcelane, *craftitudine raro quanta dictum est vasi potorio*, and in another passage, *humorem putant sub terra calore densari*, which he certainly applies to the concoction of a fossil, but which bears no little resemblance to the maturing of the materials before mentioned.

After all, if it was a gem, it is astonishing that the sardonix should be mentioned by no ancient author, as appropriated to this purpose. If it was factitious, it is equally strange, that nothing stronger should appear on that side of the question, than the *capis* of Pliny. The distinction could not have been mistaken. The country he assigns to the production, is Karmania, in the kingdom of Parthia, and that it came from Parthia⁴⁷ into Egypt, to the countries on the Mediterranean, and to Rome, seems evident from a variety of authorities; and that it might well do, if we consider that Parthia communicated with India by means of the Persian Gulph, and possibly on the north with China⁴⁸ itself, by means of the caravans. The mention of Karmania by Pliny, as the country where the murrhina were obtained, favours the supposition of procuring these vessels from India;

⁴⁷ The kingdom, not the province, as we may see from a former citation noticing Karmania.

⁴⁸ That there was an intercourse with the Seres on the north of the Hiomglo mountains, and that exchange of commodities took

place at some frontier, like that between the Russians and Chinese at Kiatcha, is evident from Ptolemy, Pliny, and the Periplus. Whether the Seres were Chinese, or an intermediate tribe between India and China, is not material in the present instance.

for the communication of Karmania with Scindi and Guzerat is almost immediate, and certainly prior to the navigation from Egypt to that coast. But in Guzerat they were obtained, when the author of the *Periplus* was employed in that trade; and their arrival at the market of Baroach, from the interior of India, may induce us to suppose, that they came into India from the north.

The immense value of these vessels at Rome might well arise from their scarcity. They were first seen there in the triumphal procession of Pompey; and it must be observed that Pompey returned from the shores of the Caspian Sea. They were afterwards introduced into use at the tables of the great, but of a small size and capacity, as cups for drinking. Afterwards one which held three sextarii or pints, was sold for seventy talents⁹⁹; and at length Nero gave three¹⁰⁰ hundred for a single vessel. The extravagance of the purchaser might, in this instance, enhance the price, but the value of the article may be better estimated by the opinion of Augustus, who, upon the conquest of Egypt, selected out of all the spoils of Alexandria a single murrhine cup for his own use. Now, therefore, if the murrhine was porcelain, it may be a piece of information acceptable to our fair countrywomen, to know that Cleopatra did not indeed sip her tea, but drink her Mareotick wine out of china.

I have not been able to consult the work of Christius, but take the account of his argument from Gesner, and I refer the reader for further information to Gesner in voce, to Chambers's Dictionary, to Salmastius, Plin. Exercit. and to an express dissertation in the Volumes of the Academy of Belles Lettres, which I have formerly seen, but have not now an opportunity of consulting. I recollect that

⁹⁹ L. 13, 562.

¹⁰⁰ L. 56, 125.

¹⁰¹ The sums seem as immoderate for a cup of sardonix as for porcelain.

it is in favour of the opinion, that murrina and porcelane are the same.

53. Λιθία διαφανής. P.

A transparent substance of stone or pebble, but it is probably here the glass made of stone as clear and bright as crystal, and the same as *Υαλή*, Hyalè mentioned before. Salmastius (p. 1096.) has a very curious quotation from the Scholiast on Aristophanes ad Nubes, Act ii. scene 1. "We call Hyalos (he says) a material made of a certain plant burnt, and wasted by fire so as to enter into the composition of certain [glass] vessels. But the ancients appropriated the term hyalos to a transparent stone called kruon, or crystal."—This perfectly accords with the manufacture of glass, composed of sand, or flints, and the ashes of a plant called kali or vitraria in Narbonne. Salm. *ibid.* and Chambers in voce. But glass has its name from *glastum* or woad, *the blue dye*, because common glass was of that colour, but the transparent stony glass [flint glass] here mentioned seems to take its name [*διαφανής*] transparent, and [*Υαλή*] chryselline, from its superior purity and imitation of the crystal. The whole passage in the Scholiast is interesting, and worth consulting. Nub. act ii. scene 1. l. 766. Τὴν Ὑαλον λέγουσι.

"The hyalos or crystal is formed circular and thick for this purpose [the purpose of a burning glass], which being rubbed with oil and warmed, they bring near the wick of a lamp and light it:" [it was rubbed with oil probably to clean it, but why warmed

" See Vossius ad Melém, Varior. ed. 1722, who cites Pliny, lib. xxii. c. 1. Simile plantaginis glastum in Gallia, quo Britannorum conjuges natusque toto corpore oblitæ. Vof-

fius addit, apud Cambro-Britannos isatidis proventus glas appellatur, et cæruleum colorem. Herba isatis is woad.

does not appear.] “ Homer knew nothing of the chryſtal, but
 “ mentions amber:” [true, for with Homer *κρύσταλλος* is always ice.]

Hence it appears that chryſtal was known to Ariſtophanes, and
 the application of it to the purpoſes of a burning glaſs; that glaſs
 was known in the time of the Scholiaſt, and that Homer knew
 nothing of either. The uſe of a pebble or chryſtal, however, to
 kindle fire, is known at leaſt as early as the writings of Orpheus
περὶ λίθων. And if the writings attributed to Orpheus be really the
 work of Pythagoras, or a Pythagorean, as Cicero ſuppoſes, *De Nat.*
Deorum, the knowledge of this property is ſtill very old. But
 Tyrwhitt has overſet all the antiquity of this Orpheus, and brings
 the poem *Περὶ λίθων* down to the lower empire—to Conſtantius, or
 even lower. See *Præf.* p. 10. et ſeq.

Why glaſs was ſo late before it was introduced to the knowledge
 of the Greeks and Romans, or other nations on the Mediterranean,
 ſeems extraordinary; but De Neri (*Art. de la Verrerie*, Paris, 1752)
 informs us, that glaſs is not mentioned in the Old Teſtament, and
 appears in the New only, in the epiſtles of St. Paul, St. James, and
 the Revelations; that of the Greeks, Ariſtotle is the firſt who makes
 expreſs mention of it, and aſſigns the reaſon why it is tranſparent,
 and why it will not bend, but in a dubious paſſage; in Rome it was
 but little known before the year 536, U. C. and was not applied to the
 uſe of windows till near the reign of Nero. Seneca, *Ep.* xc. This
 ſeems the more extraordinary as the art of making glaſs was known
 in Egypt in the earlieſt times. The mummies of the Catacombs
 near Memphis are ornamented with glaſs beads; and it has lately
 been diſcovered that the mummies of the Thebaid are decorated with
 the ſame material; which carries the invention much higher, poſſibly
 to

to 1600 years before our era (Ripauid's-Memoir). If this be a fact, we arrive at the Diospolis of Upper Egypt, the Thebes of Homer for the origin of the invention, but the Diospolis of the Periplus is in the Lower Egypt on the Lake Mensaleh, though the name and site is much disputed, as we learn from d'Anville, (Égypte, p. 92,) but at Tennis on that Lake, the French found remains of brick, porcelane, pottery, and glass of all colours, (Memoirs, p. 223,) and at the Lower Diospolis, we find the same substances noticed by the Periplus with the addition of wine, dipse, and an imitation of the murrhine vessels. Strabo informs us, that he conversed with the manufacturers of glass at Alexandria, who told him that there was a hyalite earth; which of necessity entered into their compositions of a superior sort, and particularly in the coloured glass, but that still greater improvements had been made at Rome, both in regard to colours and facility of operation (lib. xvi. p. 758.). The same manufacture was continued afterwards at Tyre and Berytus; and at Tyre it was found by Benjamin of Tudela, as late as the year 1173. (Bergeron, p. 17.) At Rome it was certainly known before the second Punick war, because Seneca mentions *ruficitatis damnant Scipionem quod non in Caldarium suum specularibus diem admiserit*, but this was in the Bath or Sudatory; in houses it was introduced later, *vitro absconditur Camera*, Ep. 86, *et quædam demum nostra memoria prodisse scimus ut speculariorum usum perluciente testa clarum transmittentium lumen*; but *testa* does not quite express *glass*. Martial mentions glass applied to the hot-house or green-house, lib. 8; and drinking glasses he calls *chrystalla* (lib. x. 59, Ed. Fitzger.). Pliny also writes, *maximus tamen honos est in candido translucentibus, quam proximâ chrystalli similitudine, usus vero ad potandum argenti metalla et auri pepulit*. Lib. xxxvi. 26.

From which we learn, that the Romans used drinking glasses as we do, in preference to gold or silver, and that the material was not *vitrum*, but the white flint glass like crystal, as ours is. Gibbon has observed, that Augustus knew not the comfort of clean linen or glass windows, but glass windows were within a century after his time adopted in Rome. In England we are indebted to Theodorus, archbishop of Canterbury, who introduced glass windows, music, geometry, and classical learning into England about the year 670. Bede, Ec. Hist. lib. iv. c. 2.

That clear or flint glass assumed its name from *ἄλας*, crystal, is still more apparent from a passage of Diodor. Sic. lib. ii. p. 128. ed. Wessel. where mention is made of both sorts, the factitious and native *ἄλιον*, as he writes it. The glass coffin of Alexander is called *ἄλιον*, by Strabo, lib. xvii. p. 794. See Herod. iii. p. 206. et Wessel. not. et Diod. ii. p. 15.

54. *Λίθος καλλιανός. καλλιανός. P. Callain Stone.*

The Lapis Callais or Callainus of Pliny is a gem of a pale green colour found in Caucasus, Tartary, and the best sort in Karmania; it is called an emerald by Ramusio, and it was possibly one of those substances which Dutens, says the ancients, mistook for the emerald, and which he calls Peridot, Spath, Fluor, and prime d'Emeraude, the distinctions of which are attended to by few, except jewellers or collectors; others think Callais and Callainus two distinct stones; the Peridot is a pale green, inclining to yellow. Id.

Salmasius writes it Callinus, and says it may be a pebble or agate, inclosed in another^s, and that it is loose and rattles; this Pliny calls

^s But he mentions it as a topaz, and says, blue, why not a turquoise? which is still a there are topazes of two different colours; if favourite stone in the East.

Cytis, xxxvii. 56. Hard. Cytis circa Copton nascitur candida, et videtur intus habere petram quæ sentiatur etiam strepitu.

55. Ἄλιθος ὀψιδιανός. P. *Opfian Stone.*

Probably serpentine or hæmatite, in the opinion of Dr. Bûrges. Salmasius objects to Pliny for calling it opfidian, or saying it was discovered by Opfidius. In Greek it is always opfian, and is a green stone very dark, approaching to black. It was found in the islands of Ethiopia; and from taking a high polish was used by the emperor Domitian to face a portico, so that from the reflection he might discover if any one was approaching from behind.

The opfidian stone, mentioned by Pliny, is very dark but translucent, and a factitious sort of it which he likewise notices, seems very much to resemble the material of which our brown or red tea-pots are composed. Totum rubens, atque non translucens, hæmatinon appellatum. See discourse in the Memoirs of the Academy of Sciences. The specimens of this stone, which I have seen, are so dark that the green cast can only be discovered by holding them in a particular position. The closeness of their texture seems to admit of any degree of polish that the artist may be disposed to give them.

The specimen which I saw was brought from Egypt by a Gentleman who had visited the country: it was esteemed such in Egypt, and acknowledged for opfian by several of the most curious observers at Rome; and it exactly answers the description of Isidorus, adduced by Hardouin on this passage: est autem niger, interdum et *virens*, aliquando et translucidus, crassiore visu. And again: obsidius lapis niger est, translucidus et vitri habens similitudinem. Isidor. lib. 16. Orig. cap. 15. and cap. 4. That opfian and obsidian have been con-

founded,

founded, or applied to different substances, may be allowed; but the opsidian of Pliny came from *Æthiopia*, and so did the opsidian of the Periplus; and whatever be the name, the same fossil seems to be intended. How it may be applied by others, concerns not the present question; and if the etymology be Greek (from *ὀπταμαι* or *ὀψις*), it might be applied to any polished stone which reflects images. It is used by Orpheus under *opallius*, *lin. 4.* in what sense I pretend not to determine; but his classing it under the opal, which is clouded, and specifying its pitchy colour (*ἡ πίτυος δάκρυσι λιθόμενον ὀψιανόν*) and stone-like appearance, petrified, as he supposed, from the exudation of the pine, makes me suppose it the same as Pliny describes, when he mentions the imitations of it and the stone itself: *In genere vitri et obsidiana numerantur, ad similitudinem lapidis quem in Æthiopia Obsidius invenit, nigerrimi coloris, aliquando et translucidi crassiore visu, atque in speculis parietum pro imagine umbras reddente.* M. Dutens (p. 66.) says, it is a volcanic glass, such as is found about Mount Etna and Mount Vesuvius; but instead of solving the difficulty, about which, he says, so many learned men have disputed in vain, this only adds to it; for if it was found in Italy and Sicily, why should it be sought for in Ethiopia, almost at the mouth of the Red Sea, and imported from Egypt at a prodigious expence?

56. *Λύγδος.* *Lygdus.* P.

A beautiful white marble, or rather alabaſter, used to hold odours; Ramusio. Salmasius says, an imitation of this alabaſter²² was formed of Parian marble, but that the best and original lygdus was

²² Unguenta optime ſervantur in alabaſtris. Plin. lib. xiii. p. 3.

brought

brought from Arabia, that is, as noticed in the Periplús, from Moofa. Salm. p. 559.

57. Λύκιον. *Lycium*. P.

A thorny plant, so called from being found in Lycia principally. A juice from which was used for dying yellow, mentioned by Pliny and Dioscorides. The women also, who affected golden locks, used it to tinge their hair. Salm. p. 1164. Why this should be sought in Scindi, if it was found in Lycia, does not appear. It is found now in the shops by the name of the yellow-berry, box thorn, grana d'Avignon. Dr. Burgefs. *Lycium*, in Pliny, is a medicine derived from the *Garyophyllon*, lib. xii. c. 15. Hardouin, who adds *Lycium porro quid sit ignorari etiam a peritis herbariis pronunciat anguillara*, lib. de *Simplic. pars iii. p. 62: Nos Clusio credimus esse Hacchie Goanorum.*

58. Λωδίκες. *Lodices*. P.

Quilts or coverlids.

ἢ πολλὰ ἀπλοῖ καὶ ἐντόπισι.

Coverlids plain and of the country manufacture at Moofa.

M.

59. Μαργαρίται, p. 84. D. P.

Pearls, fished for near Cape Comorin, where the fishery still continues, or at the Lackdive Islands, formed a great article of commerce on the coast of Malabar.

60. Μαλάκαθρον.

60. *Μαλάβαρον. Malábatrum. D. P. Betel.*

In order to avoid the confusion of ancient authors, we must consider this article under two heads :

First, as an Unguent, Odour, or Perfume ;

Secondly, as the Betel.

First, as an unguent or perfume, it is certainly assumed by Horace :

Coronatus nitentes

Malobathro Syrio capillos. Hor. lib. ii. ode vii. 8, 9.

and by Pliny⁵⁴ when he makes it, with all the fragrant odours of the East, enter into the royal unguent of the kings of Persia. (Lib. xiii. c. 2.) And again (lib. xii. c. 12, or 26 Hardouin,) where he mentions the nard of Gaul, Crete, and Syria; the last agreeing with the Syrian odour of Horace, and almost ascertaining the error of confounding spikenard with the betel. So likewise (lib. xii. c. 59.) Hard. *Dat et malobathron Syria ex qua exprimitur oleum ad unguenta*; but in the same chapter he says, *sapor ejus nardo similis esse debet sub linguâ*; and (lib. xxiii. c. 48. Hard.) *oris et halitus suavitatem commendat linguæ subditum folium*: in which sense, as Dioscorides also testifies, it is a masticatory, and not an unguent. Added to this, he applies the titular distinction of *hadrosphærum*, *mesosphærum*, and *microsphærum*, to the spikenard (lib. xii. 26. Hard.), which Salmasius, Matthioli, and almost all the

⁵⁴ It appears by Pliny, lib. xiii. c. 2. that almost all the fragrant odours of the East entered into the composition of their unguents. In the royal Persian unguent no less than twenty six odours are enumerated, and among them the malobathron, which is not so properly an odour as a stimulant, if it be the betel. But it is frequently confounded with the

spikenard, the first of odours, which is pre-eminently called *folium*, or *the leaf*, in opposition to *costus*, or *the root*. But the betel-nut being wrapt in the *arceka leaf* has probably given rise to the mistake. See Pliny, lib. xii. c. 12. where the *hadrosphærum*, *mesosphærum*, *microsphærum*—all distinctions of the betel, are falsely applied to the spikenard.

commentators, agree in assigning specifically to the betel; and to the betel, betre, or petros, they are applied in the Periplūs. (p. penult.) The error of Pliny, and his fluctuation in making it both an unguent and a masticatory, arises from his considering the spikenard to be *the leaf*, κατ' ἔξοχὴν (which it is not, but a root), and not considering, or not knowing, that the betel is, above all others, *the leaf*, used with the areka-nut, and the constant masticatory of the Orientals from Malabar to Japan.

Secondly, that it is a masticatory is confirmed by Dioscorides; for he says (ὑποτίθεται δὲ τῇ γλώσσῃ πρὸς ἰνδιάν σόματος), it is placed under the tongue to sweeten the breath, and it has (δύναμιν τινὰ ἐνσωμαχωτέραν) the virtue of strengthening the stomach. If any native of the East were at this day asked the properties of betel, no doubt he would specify these two particulars above all others. But it should seem that Dioscorides was aware of the confusion caused by mistaking the nard for the betel; for he commences his account by saying, that some believe the malabathrum to be *the leaf* of the nard, deceived by the similarity of the odour; but the fact is far otherwise. (See Matthioli, p. 40.)

The author of the Periplūs knew that Petros was the leaf, and that when the whole composition was made up together, it was called Malabathrum; for he mentions the method of obtaining it by the Sères from the Sêfatæ, and their exportation of it again. (p. ult.) We know likewise that the procuring it at the extremity of the East, is consonant to modern observation; for though it is used in India, it is indispensable in all ceremonies in Ava, Pegu, China, and the islands of Java, Sumatra, &c. It is now well known to consist of the areka-nut, the betel-leaf, and a mixture of lime from sea-shells,

and sometimes with the addition of odoriferous drugs. The arcanut has the appearance of an oblate nutmeg, hard as horn, and when cut, resembling the nutmeg in its mottled appearance. Dr. Burgefs informs me, that the unripe nutmeg is sometimes pressed, and an aromatic liquid procured, fragrant in the highest degree, which perhaps may have some relation to the perfumed unguent of the ancients. The betel is a species of the pepper-plant, and the lime is called chinam, the use of which turns the teeth black; and black teeth consequently, from the universality of the practice, are the standard of elegance in all those countries where the usage prevails. For the natural history of the ingredients, and the ceremonies attending the custom, I refer to Sir G. Staunton's Chinese Embassy, vol. i. 272.; Mr. Marsden's Sumatra, p. 242.; and Mr. Turner's Embassy to Thibet, pp. 285. 343.

The name of this masticatory varies in different countries, but its Arabick name is *Tembul*, *Tembal*, or *Tambal*; and from *tamala*, added to *betrè* or *bathra*, *tamala-bathra* is derived, and the *malá-bathra* of the ancients, according to the opinion of *Salmasius*.—
 “But *Stephens* (in voce) gives a different etymology: *Ferunt apud Indos nasci in ea regione quæ Malabar dicitur, vernaculâ ipsorum linguâ Bathrum, sive, Bethrum appellari, inde Græcos composita voce nominatim Μαλάβαθρον.*” F. F. What adds to the probability of this is, that the coast was called *Malè*, till the Arabs added the final syllable. And let it not be thought fantastical, if we carry our conjectures farther east—to the country of the Malays, in the Golden Chersonese; for in that part of the world the custom is far more prevalent, and there the best ingredients are still procured. The Malays were not unknown, by report at least, to the Greeks; for
 Ptolemy

Ptolemy has a Malai-oo-Colon (*Μαλαίης κώλον ἄκρος*, p. 176; not far from the Straits of Malacca, the country of the Malays.

From the practice of the natives, another circumstance occurs worthy of remark; for it is said, "Sinæ in mutuis visitationibus folia betel manu tenent, ac cum Areka et calce in patinis ligneis in benevolentisæ signum offerunt hospiti; dum utuntur, primo parum Arekæ mandunt, mox folium betel calci illitum, *exemplis prius nervis* ungue pollicis, quem propterea longum atque acutum habent." Nieuhoff, pars ult. Legat. Batav. p. 99. F. F.—I owe this curious passage to the suggestion of Dr. Falconer, and I cannot help thinking that it corresponds with the expression in the Periplús, *ἐξινιάσαντες καλάμους τῆς λεγομένης Πέτρης*; ex arundinibus illis quas petros appellant *nervis fibrisque extractis*; though applied to the making up of the composition, rather than the use of it.

The account of the ingredients must be left for the natural historians to develop; but the classical history of them, such as I have been able with the assistance of my friends to collect, has been drawn from Dioscorides, Pliny, Matthioli, Salmasius, and the other authorities cited, with much labour and attention; and if it contributes to remove the obscurity in which the question was involved, let it not be received as a tedious discussion, but as the effort of an author, who was engaged in the inquiry, before he was aware that an acquaintance with natural history would become so material a part of his duty.

62. *Μάκκιρ. Macer.* P.

An aromatic from India; the bark red, the root large. The bark used as a medicine in dysenteries. Plin. xii. 8. Salm. 1302.

63. *Margaritæ*. D. P. *Pearls*.

The Pearl Fishery is mentioned in the Periplus, both at Bahrein in the Gulph of Persia, and at the Island of Ceylon; but I am obliged to Mr. Falconer for pointing out "the authority of Pliny, lib. ix. 35. or 54 Hard. and lib. vi. 22. or 24 Hard. ; the former " of which is of importance, as marking out not only the fishery " at Ceylon, but at Perimoola, and the Sinus Perimcolus." F. For the Perimoëla of Ptolemy is not far from the Straits of Malacca, and approaches (though not nearly) to the Sooloo Fishery of Mr. Dalrymple. Whether pearls are still taken in the Gulph of Siam or Cambodia, I am not informed, but they might well be brought thither from Borneo; and the information is highly interesting. In the same passage it is noticed by Pliny: Principium ergo, culmenque omnium rerum pretii, Margaritæ tenent. But it is not true that the pearl sold higher at Rome than the diamond; for, lib. xxxvii. c. 4. the diamond has the highest value; the pearl, the second; and the emerald, the third.

64. *Marucorum Lana*. D. *Wool of Marucori*.

The text is corrupt. Ramusio joins it with the following article, Fucus, which he reads Marucorum Succus; but what it means is not easily discoverable. Dr. Falconer, with great appearance of probability, supposes it to be the wool of the Thibet sheep, of which shawls are made.

65. *Μάχαιραι*. P.

Knives or canjars worn at the girdle.

66. Μελιέφθα χαλκᾶ. P.

Brafs⁴⁵ or copper, prepared, as Ramusio fays, for veffels of cookery. But rather for ornaments of women, as bracelets, anklets, and collars. No uſage of Μελιέφθα occurs elfewhere; but metals were prepared with feveral materials to give them colour, or make them tractable or malleable. Thus χολιέβαφα in Heſychius was brafs prepared with ox's gall to give it the colour of gold, and uſed like our tinfel ornaments or foil for ſtage dreſſes and decorations. Thus common brafs was neither ductile nor malleable, but the Cyprian brafs was both. And thus, perhaps, brafs, μελιέφθα, was formed with ſome preparation of honey. Pliny uſes coronarium poſſibly in reference to the ſame application of it as Heſychius mentions, and ſeems to uſe Cyprium in the ſenſe of copper. Cyprium regulare is the beſt copper, and every metal is called regulare when purified; omne, purgatis diligentius igni vititi, excoctifque, regulare eſt. And again Cyprium tenuiſſimum quod coronarium vocant, xxxiii. 9.

67. Μέλι καλάμνον τὸ λεγόμενον σάκχαρι. D. P.

Honey from canes. *Sugar.*

In Arabic, ſhuker, which the Greeks ſeem firſt to have met with on the coaſt of Arabia, and thence to have adopted the Arabic name. It is here mentioned on the coaſt of Africa, where the Arabians likewiſe traded, and either imported it themſelves from India, or found it imported; it was evidently not found in that age growing in Africa. The Sanskreet name of ſugar is ich-ſhu-caſa, and from the two middle ſyllables the Arabic ſhuka, or ſhuker. Af. Reſearch. iv. 231. See Du Cange, article Cannamele, Cannæ Mellis, mentioned

⁴⁵ This article is very dubious.

by Abbertus Aquenfis, William of Tyre, and others, as introduced from the East into Cyprus, Sicily, &c. in their age.

68. *Μελίλωτον. Honey Lotus. P.*

The lotus or nymphæa of Egypt. The stalk contains a sweet and eatable substance, considered as a luxury by the Egyptians, and used as bread; it was sometimes carried to Rome, and the Periplûs makes it an article of importation at Barygâza. It appears also to have been used as provision for mariners; and if this was the favourite bread of Egypt, in preference to grain, Homer might well speak of it as a luxury and delicacy; but his lotus is generally supposed to be the fruit of a tree, by our African travellers. Authors differ, some asserting that it is still common in the Nile, others saying that the lotus now found there has neither pulp nor substance.

69. *Μέταξα. See Νῆμα Σηρικόν. D. P.*

70. *Μικρότε θυμίαμα. D. P.*

An incense called microtus or microton.

71. *Μολόχιναι. P.*

Coarse cottons of the colour of the mallow. Others read *Μοναχίαι*, either single threaded or of one colour.

Coarse cotton dyed of a whitish purple, and therefore called *molo-china* from *Μολόχην, mallowos*. Wilford, *Asiat. Dissertation. vol. ii. p. 233.*

Paolino interprets *Molochina*, tele finissime dipiuti e richiamente, p. 95. i. e. chintz. Muslins are said to derive their name from *Mosul*, because they were brought from thence by caravans into Europe.

(Marco

(Marco Polo, lib. i. c. 6.) But there is a distant resemblance between Molochina and mullins, and the Greeks had no soft sound of ch. If there is any name in the native language similar to either, we ought rather to seek for an Oriental derivation than a Greek one. At the same time it may be considered, that *purple* cottons might have as general a sale formerly, as *blue* Surats have now.

72. Μόλυβδος. Lead. P.

73. Μορώ. P.

A species of cinnamon. See *Κασσία*.

74. Μύρον. D. P.

Myrrh or oil of myrrh¹⁶.

A gum or resin issuing from a thorn in Arabia, Abyssinia, &c. Bruce has given an account of the plant; he says it is originally from Africa, and that the Arabian myrrh is still an inferior sort. See Bruce, Chambers, and Salmasius.

75. Μυρρίνη. See *Λιβία Μυρρίνη*.

Porcelane. See Gesper and Chambers in voce.

N

76. Νάρδος. D. P. *Nardi Stachys*, *Nardi Spica*, in the Digest.
Spikenard.

This article appears under another form, and as if it were a dif-

¹⁶ The African is best; the Abyssinian, Arabian, and Indian, worst. Dr. Burge's.

ferent

ferent article in the Digest, No. 3; the Nardi Stachys is No. 5, but under No. 3 we read

Folium

1. Pentasphærum.
2. Barbaricum.
3. Caryophyllum.

The two first of which may be interpreted in conformity to the authorities which follow: 1. Folium Pentasphærum, Betel. 2. Folium Barbaricum, Spikenard; but the third is the *Clove*, and is not related to the other two folia or leaves, unless it were introduced into the rescript of the Digest, from the custom-house at Alexandria, because it was a compound of *φυλλον*, a leaf. *Caryo-phullon*, the *nut leaf*, is a name applied to the pink flower, because the sheath which encloses the flower is scolloped and jagged like the sheath of the nut. Whether this was transferred to the clove itself, on account of the angular points at the head of the *clove*, or nail; or, whether to the plant, I am not able to determine. (See article Caryophyllum); but *Νάρδος* is the spikenard called Folium Barbaricum, because it was obtained at Barbarikè, the port of Scindi; and Folium Gangiticum, because it was likewise procured at the Ganges, that is in Bengal; *Νάρδος γαγγητικὴ* also, as it appears in the Periplus (p. 32.), by the general consent of the commentators, is read, *Νάρδος Γαγγητικὴ*, and confirmed by the Periplus itself, p. 36.

No Oriental aromatic has caused greater disputes among the critics, or writers on Natural History, and it is only within these few years that we have arrived at the true knowledge of this curious odour, by means of the inquiries of Sir William Jones and Dr. Roxburgh.

Their account is contained in the fourth volume of the Asiatic Researches, and Dr. Roxburgh was so fortunate at last as to find the plant in a state of perfection, of which he has given a drawing that puts an end to all controversy on the subject.

The nard has the addition of spike from the Latin *spica*, an ear of wheat, which, according to Dr. Roxburgh's drawing, it perfectly resembles. And this adjunct is found also in its Arabic name, *sumbul*; and in its Shanfcreeet appellation, *Jatámánsí*; as also its Persian title *khúftah*, all signifying *spica*.

Sir William Jones, *Asiat. Ref. iv. 117*, says, it is a native of Budtan, Népal, and Morang; and that it is a species of Valerian. It is remarkable that he had himself seen a resemblance of it in Syria, as the Romans or Greeks mention Syria as one of the countries where it is found; but Ptolemy gives it its true origin in these tracts of India. A specimen was brought down to Calcutta from Boudtan at the request of Sir William Jones, and the agents of the Deva Raja called it *pampi*; but it was not in flower. Some dried specimens of it looked like the tails of ermines, but the living ones, as Dr. Roxburgh afterwards found, rise from the ground like ears of wheat. It answers the description of Dioscorides. It is weaker in scent than the Sumbul spikenard of Lower Asia when dry, and even lost much of its odour between Budtan and Calcutta. The odour is like the scent of violets; but the living plant is forbidden to be brought out of Boudtan. It was, however, procured by the intervention of Mr. Purling, the English resident; and was at last received in its perfect form by Dr. Roxburgh, who has described it botanically. *As. Ref. iv. 733*.

In the age of the *Periplus* it was brought from Scindi, and from the Ganges; which, according to Sir William Jones, we ought to

conclude would be the natural port for it, as coming from Boudan. This authorizes the change of reading from γαπανικῆ, [gapanika,] to γαγγιτικῆ, [gangitika,] more especially as it is mentioned at the Ganges. Some fanciful inquirers might think they had found the mention of Japan in this passage.

We ought not to omit some particulars from Pliny which are remarkable. He describes the nard with its spica, mentioning also that both the leaves and the spica are of high value, and that the odour is the prime in all unguents. The price an hundred denarii for a pound. And he afterwards visibly confounds it with the malobathrum or betel, as will appear from his usage of hadrosphærum, mesosphærum, microsphærum, terms peculiar to the betel.

Hoffman in voce Foliatum, writes, Foliū catasphærum est Foliū Malabathri quod inde σφαίραι, i. e. pilulæ conficerentur. Foliū vero Barbaricum, id quod Indicum, Græci recentiores nominarunt quod ex India deferretur per Barbaricum Sinum. F. F.— But it is not the Barbaricus Sinus on the coast of Africa that is meant, but the port Barbarikè in the Delta of the Indus. There the Periplus finds the spikenard, which is the folium Indicum. Foliū catasphærum, hadrosphærum, &c. is the betel-leaf. Hoffman adopts Salmasius's opinion in regard to the mistake of Pliny: he seems to think that the malobathrum, as well as the folium, was confounded with the spikenard. If so, the malobathrum Syrium of Horace is the unguent of spikenard, which, according to Sir W. Jones, is found in Syria as well as in India.

The characteristic name of the nard is folium³⁷, the leaf, pre-

³⁷ Salmasius, p. 1265, is clearly of opinion, folium to nard. He says it is always peculiar that Pliny is regularly mistaken in applying to malobathrum betel.

eminently in contradistinction to costus, *the* root, both as the prime odours of their two sorts, the root and the leaf.

Dr. Falconer has justly cautioned me to be sure that the nard of Pliny is *the leaf*. I know no more of natural history than I have obtained from the authorities here cited; but that Pliny mentions both the spica and the folium of the nard, is certain; and by his expressions I understand, that what we now know to be the *root*, he supposed to be the *growth*. *Cacumina* in aristas se spargunt, assuredly expresses something above ground; ideo gemina dote nardi spicas ac folia celebrant, by which we must understand that *cacumina* and *spicæ* are identified. But that Pliny was mistaken, and that the *spica* was really the root, cannot be doubted, after the account that Dr. Roxburgh has given. It is clear also from the authorities adduced by Dr. F. that the ancients were well informed of this. “ In
 “ one of the receipts for the Theriaca Andromachi, *Ναρδοιο τε ριζαν*
 “ *Ινδης. Ναρδα σαχυς, η ριζα ταυτης θερμαινει μεν κατα πρωτην αποστασιν.*
 “ *Æginet. lib. vii.* Galen speaks of it as a root: *εκ τοικτων δε η ριζα*
 “ *συγγινομενη δυναμειων.* And Arrian: *εχειν δε την ερημον ταυτην τε*
 “ *Ναρδα ριζαν, πολλην τε κ̄ ευσμουν, κ̄ ταυτην συλλεγειν της Φοινικας.*
 “ And Galen, lib. xii. de Antidotis, c. 14. *εφεξ̄η δε της προγεγραμ-*
 “ *μενης ο Ανδρομαχος Ινδικην Ναρδου κελεινι βαλειν, ηπερ κ̄ σαχυν ονο-*
 “ *μαζομεν Ναρδον, κ̄ τει ριζαν ουσαν, απο της προς της ασαχυας ομοιο-*
 “ *τητος, κατα την μορφην.* To these may be added the testimony of
 “ the moderns; Murray, Appar. Medic. vol. 5. pp. 445, 446.
 “ Lewis, Mat. Med. and the following note from Bodæus, which
 “ perhaps best solves the question: In Indica Nardo, salvo meliore
 “ judicio, spica dicitur cauliculus, multis capillaceis foliolis obtitus,
 “ ad instar aristarum; nec de nihilo aut immerito Græci antiquif-
 “ simi, Romani et Arabes Nardo illi Spicæ appellationem imposu-
 “ erunt.

“erunt. Radix quidem est, sed quæ cauliculum e terra emittat, aliquando plures ex una radice capillaceis densis aristatisque foliis vestitos. Not. in Theophrast. p. 1018.” F. F. Add to this the testimony of Dr. Roxburgh, and it will appear evidently that Pliny was mistaken. Another medical friend informs me, “that the matted fibres, which are the part chosen for medicinal purposes, are supposed by some to be the *head*, or spike of the plant, by others, the *root*—they seem rather to be the remains of the withered stalks, or ribs of the leaves; sometimes entire leaves and pieces of stalks are found among them.” Is not this the origin of Pliny’s mistake, which Dr. Roxburgh sets at rest? and may not these leaves and stalks be purposely left to increase the weight and price; or even to deceive, as the natives are so jealous of their plant? All this accords with the quotation of Dr. F. from Bodæus.

But there is still a more remarkable particular in Pliny, which is, that he evidently copies the Periplus in the three places which he allots for the markets of the spikenard; for he mentions Patala at the head of the Delta¹⁸ of the Indus, correspondent to the Barbarika of the Periplus; and another port which he calls Ozænitides, evidently agreeing with the mart of Ozéne (p. 27. Peripl.); and a third port named Gangitic, from the Ganges, answering to gapanic, for which all the commentators agree in reading Gangitic. Very strong proofs these, that Pliny had seen this journal and copied from it; as he mentions nothing of Ozéne in his account of the voyage, and only catches Ozænitides here incidentally. See Salmastius, p. 1059. et seq. who is very copious on the subject, and has exhausted all that the ancients knew of this aromatic¹⁹.

¹⁸ Whether this in Pliny does not apply to coltus?

¹⁹ It resembles the tail of a small animal, in Dr. Burgers’s Collection.

70. Ναύπλιος, p. 27. *Nauplius*. P.

It seems to be an inferior tortoise-shell from the context, which runs thus, ἡ χελώνη διάφορος κατὰ τὴν Ἰνδικὴν ἢ ναύπλιος ὀλίγος, i. e. tortoise-shell of superior kind, but not equal to the Indian; and a small quantity of that species called nauplius. It may, however, be a different commodity; but I cannot trace it in Pliny, unless it be the shell of that fish he calls nauplius, lib. ix. c. 30. or 49 Hard. which seems a species of the nautilus; but which Hardouin says, does not fail in its own shell, but a borrowed one.

71. Νῆμα Σηρικόν. D. P.

Sewing silk, or silk thread, from China. If this passage be correct, it proves that silk was brought into India from China, as early as the age of the Periplus. Νῆμα can hardly be applied to a web, it seems always to be thread.

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; for he says, the women who wrought it had the double trouble of untwisting the silk thread, and then weaving it up into a manufacture. Unde geminus nostris foeminis labor redordendi fila rursumque texendi. See Procop. Anecd. p. 3. Zonaras ad Concil. p. 231. And for the history of the silk trade at Tyre, see Procop. Hist. Arc. p. 73. Justinian ruined the trade at Tyre, and yet sent the Monks to bring the worm from the East. Procop. de Bello Goth. iv. 17. p. 613. Byz. Hist. See Gibbon.

Αυτὴ δὲ ἐστὶν ἡ μέταξα ἐξ ἧς ἐπιβάσι τὴν ἐπιθήτα ἐργαζέσθαι, ἢ παλαιὰ Ἕλληνας Μηδικὴν ἐκαλεῖν, ταύτην δὲ Σηρικὴν οὐνομαζέσθαι. Procop. Persic. & Vandal. lib. iv. Μέταξα fera cruda. Du Cange. F. Untwrought silk is called Ἐριον in the Periplus.

Ἰματῖα τὰ εἰς ΜΕΤΑΣΗΘΕ ἐν Βηρυτῶ μὲν καὶ Τύρῳ πόλεσιν τῆς Φοινίκης ἐργαζέσθαι ἐκ παλαιῶ ἐπέθει· οἱ δὲ ταιῶν ἐμπορῶ καὶ δημιουργοὶ καὶ τεχνῖται ἐνταῦθα τὸ ἀνέκαθεν ἔκων. Procop. Anec. p. iii. Hist. Arc. p. 8.

The manufactures had been long established at Berytus and Tyre. The web was formed from the metaxa; may we not call it organized silk? The price of the metaxa was raised by the taxes imposed in Persia; and, upon the manufacturers raising the price, Justinian fixed a maximum and ruined the trade.

O

72. Ὀθόνιον. *Muslin*. P.

1st fort. Ἰνδικὸν τὸ πλατύτερον ἢ λεγομένη Μοναχὴ.

Wide India muslins called Monakhè, that is, of the very best and finest sort; *particularly fine*.

2d fort. Σαγματογένη.

Which is evidently the cotton too ordinary to spin, and made use of only for stuffing of cushions, beds, &c. The Greek term is derived from Σάσσω, to stuff, Σάγματα, stuffing, or things stuffed. The article in the Periplus would be better read Σαγματογένη, the *sort* of cotton used for stuffing. Marco Polo, lib. iii. c. 29. says, Il Bambio che si cava di quello, così vecchi non e buon de filare, ma solamente per coltre. And Strabo; ἐκ τέτυ δὲ [the cotton plant] Νέμρχος φησὶ, τὰς ἐνητρίας σινδόνας ὑφαίνεσθαι, τὰς δὲ Μακεδόνας ἀντὶ κναφάλων αὐτοῖς χρῆσθαι, καὶ τῆς Σαγματοσάγης. Fine muslins are made of cotton; but the Macedonians used cotton for flocks, and stuffing of couches. Mr. Markden, p. 126. notices the cotton used only for this purpose in Sumatra as the Bombax Ceiba; and Percival mentions the same

in Ceylon, p. 328. See also Dampier, New Holland, p. 65, and Voyage, p. 165. 'Οθόνιον is from ὀθόνη, the thin inner garment of women, in contra-distinction to the χιτῶν of men. Hom. II. Σ. 595. Meursius proposes Σαγματορουση, vestis pellicia. F.

Monakhè, single.

3d fort. Χυδαῖον. P.

Coarse muslins, or rather coarse cottons, called at present dungarees; Wilford, Af. Differt. vol. ii. p. 233, to which monakhè is opposed as a finer fort.

73. Οἶνος. Wine. P.

1. Λαοδικηνός. Wine of Laodicea, in Syria. Syria is still famous for its wine. Volney, tom. li. p. 69. Strabo. d'Anville Geog. An. ii. 134.

2. Γαλικός. Italian Wine. P.

3. Αραβικός. Arabian Wine. P. It is dubious whether it may not be palm or toddy wine, it seems to have been a great article of commerce.

74. Ὀμφαξ Διοσπολιτικῆ. Dipse, Rob of Grapes from Diospolis. P.

For the explanation of this article I am wholly indebted to Dr. Falconer, and return my thanks to him more particularly, as it was the commencement of his correspondence. He observed to me, that it was the dipse of the Orientals, and still used as a relish all over

over the East. Dipse is the rob of grapes in their unripe state, and a pleasant acid. I have found many authorities to confirm his suggestion. Pliny, v. 6. xii. 19. xii. 27. xiv. 9. xxiii. called by Columella, Sapa vini. See also Shaw. Dr. Russel's Aleppo, p. 58, and Pocock, i. p. 58. made at Faiume, and called Beemas, or Pacmas. Iter Hierosol. ex uvarum acinis Mauris Zibib vel Zibiben dictum, p. 357, ex acinis succum exprimunt, coquantque, donec ad spissitudinem, instar mellis ebullierit, Pacmas id Arabicè vocant, nos defrutum, Itali mosto cotto, mustum coctum, eosque in cibus pro intinctu utuntur, nonnulli aquâ multâ dilutum bibunt, id. p. 387. Ebn Haukal likewise describes it, and calls it Douthab, made at Arghan in Sufiana.

75. *Onyx Arabicus.* D. *Arabian Onyx.*

This article stands in the Digest so unconnected with all that precedes and follows it, that Ramusio, in order to make it a drug, reads it Gum Arabic; and I can hardly think otherwise than that it is a corruption, and that some aromatic produce of Arabia is meant; but what, it is impossible to determine. Mr. Falconer is persuaded "that it is the Onyx used as a box to contain odours or perfumes, the same as the Alabastrer of Scripture, Luke, vii. 37. and Pliny, lib. xxxvi. c. 8. or 12 Hardouin, strongly confirms this opinion, for there the Onyx is said to be found in Arabia, and to be the same as Alabastrites, and to be excavated for the purpose of containing unguents or perfumes; and so Horace Nardi parvus onyx eliciet cadum." F. I have nothing to object to this but the context.

76. Ὀπήτια, p. 27. *Awls or bodkins.* P.

An article in trade on the coast of Africa, as needles are at this day.

77. Ὀρέχαλλος. *Mountain Brass.*

Used for Ornaments. Ramusio calls it white copper, copper from which the gold and silver has not been well separated in extracting it from the ore.

II

78. $\left. \begin{array}{l} \textit{Pardi} \\ \textit{Leopardi} \\ \textit{Panthera} \end{array} \right\}$ D. *Tygers, Leopards, Panthers.*

$\left. \begin{array}{l} \textit{Leones} \\ \textit{Leona} \end{array} \right\}$ D. *Lions and Lionesses.*

79. Παρθένοι εὐαιδεῖς. P.

Handsome women slaves for the haram are mentioned as intended for presents to be sent up to the king of Guzerat, whose capital was Ozénè or Ougein.

80. *Pelles Babylonicæ.* D.

Parthicæ.

Hides from Babylonia or Parthia, possibly dyed like Turkey or Morocco leather; but Q.?

81. Πελοῦκα. P.

Small hatchets or axes for the African trade.

82. *Pentaf-*

82. *Pentaspærium. Folium Pentaspærium.* D. Nard.

See article Nard. Mr. Falconer thinks that Pliny has not confounded the Folium, or leaf of the Nard with the Betel as Salmastius asserts; but that he takes the leaves from three different parts of the plant, the large making the least valuable odour, and the least leaves the best; hence, the distinction of Hadrosphærum, mesosphærum, microsphærum, and that the pentaspærum of the Digest is still an inferior sort. Of this I am no competent judge, but I think it strange that the distinctions of Hadrosphærum, &c. should be applied by the ancients both to the Betel, as they are by the Periplus, and to the Spikenard as they are by Pliny, if this opinion be founded. Pliny, lib. xxiii. 4. has certainly copied the same authorities as Dioscorides, for he makes malobathrum a masticatory to sweeten the breath, and an odour to put among cloaths, as we sometimes put lavender; both which particulars are in Dioscorides, but lib. xii. 59. Hard. it is a *tree* found in Syria and Egypt as well as India. It is much more probable that Mr. Falconer should be right, than one who is little acquainted with Natural History, but my doubts concerning Pliny's confusion are not removed.

83. Πάρεσι. *Pepper.* D. P.

Imported from the coast of Malabar, as it still is; the native term on the coast is pimpilium; Salm. p. 1070. or the Sanskreet, pipali. Af. Ref. vol. iv. p. 234. The pepper coast is called in Arabic beled-el-fulul. D'Anville, Ind. p. 118.

It was found by the Greeks from Egypt, first in Ethiopia, as an article of commerce brought thither by the Arabs, but was known in Greece much earlier.

Two sorts are distinguished in the Periplus, "and recognized by Theophrastus, lib. ix. c. xxii. *στρογγυλον* round, and *απομακρες* long. And by Dioscorides, the Betel is likewise a species of the pepper. Porro Betle foliis Piperis adeo similia sunt, ut alterum ab altero vix discerni queat, nisi quod Piperis folia paulo duriora sunt, et nervi excurrentes paulo majores. Bodæus a Stapel in Theophrastum." F. F.

1. *Κοττοναριμόν.* P.

From Cottonara, the kingdom of Canara, according to Rennell, which is still the principal mart for pepper, or at least was so before the English settled in Sumatra. This is the black pepper. See Marsden's Sumatra, p. 117. White pepper is the black stripped of its outward coat.

2. *Μακρόν.* P.

Long pepper⁶⁵, so called from its form being cylindrical, an inch and an half long. It consists of an assemblage of grains or seeds joined close together. It resembles the black pepper, but is more pungent, and it is a species of the East India pepper, totally distinct from the Cayenne, and used for the purpose of adulteration. This is the reason that we buy pepper ground cheaper than whole.

84. *Περιζώματα.* P.

Girdles or sashes, and perhaps distinguished from the following article,

(85. *Πηχυσίαι αἱ ζῶναι.* P.

Sashes of an ell long,) only in the difference of make or ornament.

⁶⁵ Tabaxir is the common long pepper.

86. Πονικόν. D. P.

Pearls, or the pearl oyster. See the fishery at Cape Comorin.

87. Πορφύρα διαφόρα κ' χυδαία, p. 35. P.

Purple cloth of two sorts, fine and ordinary. An article of trade at Moosa in Arabia.

88. Ποτήρια, *Drinking Vessels*. P.

Χαλκὰ, *Brass*. P.

Στρογγύλα, *Round*. P.

Μεγάλα, *Large*. P.

Probably all three epithets apply to the same vessel. An article of import on the coast of Africa.

89. Πυρὸς ὀλίγος. P.

Wheat in small quantities, imported into Omana, or Oman in Arabia.

P

90. Ῥινόκερως. *Rhinoceros*. P.

The horn or the teeth, and possibly the skin, imported from the coast of Abyssinia, where Bruce found the hunting of this animal still a trade, which he has described in all of its branches, vol. iv.

Σ

91. Σάγγαβα. P.

Boats or small vessels used on the coast of Cochin for conveying the native commodities from the interior to the ports, and sometimes along the coast from Malabar to Coromandel and the contrary.

92. Σάγαι Αρσινωητικῶν γεγραμμένοι καὶ βεβαμμένοι, p. 14. P.

Rugs or cloaks made at Arfinoe (Suez), dyed, and with a full knap.

93. Σανδαράκη. P.

Red pigment, Salm. p. 1155. found in gold and silver mines. Pliny. Ore of Cinnabar. Dr. Burgefs. Sandaracham et Ochram Juba tradit in insula rubri maris Topazo nasci, inde nunc pervehuntur ad nos. Plin. xxxv. 22. Hard.

94. Σαπχαρι. D. P. Sugar.

Made at Tyre in the 12th century. Benjamin of Tudela. Bergeron, p. 17. But when first planted in Europe, dubious. See article 60.

95. Σάπφειρος. Sapphire Stone. D. P.

The ancients distinguished two sorts of dark blue or purple, one of which was spotted⁶⁴ with gold. Pliny says, it is never pellucid, which seems to make it a different stone from what is now called

⁶⁴ Dr. Burgefs has specimens of both sorts, the one with gold spots like lapis lazuli, and not transparent.

sapphire.

sapphire. Dutens says, the true azure sapphire was consecrated to Jupiter by the ancients.

96. *Sarcogalla*, or *Sarco-colla*. D.

A styptic, from Σάγ^α and κολλάειν, to unite the flesh, that is, to draw the lips of the wound together, and heal it. Supposed to be gum Arabic by some; but others say, from a tree in Persia. Rammio reads the text without any notice of al chelucia or sarcogalla, and concludes all three under the following article, which is read onyx Arabicus, but which he reads gum Arabic, meaning, perhaps, to render the three consistent; and a drug seems more requisite than the onyx-stone; but see Onyx Arab. Dr. Falconer says, the sarcocolla is not gum Arabic; but adds, that it is well known in the shops, though the tree, or country which produces it, is not known. See Chambers in voce. “Fit et ex sarcocolla, ita arbor vocatur, gummi utilissimum pictoribus et medicis. Plin. lib. xiii. 11.” F.

97. *Sardonyx*. D.

“The sardonyx is next in rank to the emerald: Intelligebantur colore in Sarda, hoc est velut carnibus ungue hominis imposito, et utroque translucido, taleque esse Indicas tradunt. Arabicæ ex-cellunt candore circuli præluendo atque non gracili, neque in recessu gemmæ: aut in dejectu renitente, sed in ipsis unguibus; nitente præterea substrato nigerrimi coloris. Plin. xxxvii. 7.” F. See Chambers in voce, where, it is said, the sardonyx of Pliny is not what now bears the name but a camea. I have not found this passage as cited in Pliny, but conclude I have the numerals wrong: the sardonyx is mentioned in the chapter adduced.

98 Σχημα δερματα. *Clingse Hides or Furs.* P.

What is meant by δερματα nowhere appears, unless it can be applied to the τάρπωνα, whence the malobathrum was procured. But this is very dubious. See Μαλόβαθρον. Pliny mentions the Sères sending their iron wrapt up in or mixed vestibus pellibusque. F. See article following.

99. Σιδηρός. *Iron.* P.

An import into Abyssinia for the manufacture of spear heads, to hunt the elephant, rhinoceros, &c.⁶³

Ἰνδικός. D, P. *Ferrum Indicum.* D.

Iron tempered in India.

“ Ex omnibus generibus palma Serico ferro est. Seres hoc cum vestibus suis pellibusque mittunt. Secunda Parthico, neque alia genera ferri ex mera acie temperantur, cæteris enim admiscetur. Plin. lib. xxxix. c. 14. Plutarch (in Craffo). And Arrian de Rebus Parth. or the work ascribed to him, mentions that the Parthians covered their armour with leather, but at the moment of attack they threw off the covering, and appeared glittering in their burnished steel. Milton also, Par. Regained, lib. iii.” F. In montibus Kabel (Cabul) inveniuntur ferri fodinæ celeberrimæ, et humanis usibus aptissimæ, producunt enim ferrum acutum et venustum. Al Edrissi.

100. Σιδόνες. D. P.

Fine linen of any sort, but that imported into Abyssinia might be Egyptian, and possibly of cotton; but

⁶³ To cut like an Indian sword, is a common Arabic proverb in Arabia. And in Egypt, Shaw (p. 364.) says, the hardest tools (as drills for working the granite obelisks) were made of Indian iron. Shaw quotes the Periplus, but not perhaps justly.

Σιθόνης αἱ διαφωράταται Γαγγητικαί, P.

Can be nothing else but the finest Bengal muslins.

101. Σῖτος. *Wheat Corn.* P.

102. Σκέπαγμα. *Adzes.* P.

In contradistinction to *πελόκια*, hatchets.

103. Σκεπή αργυρεῖα. *Silver Plate.* P.

104. Ὑαλά. P.

Vessels of chrystal, or glass in imitation of chrystal.

105. *Smaragdus.* D. The Emerald.

There are twelve sorts, according to Pliny and Isidorus. (Gothofred.) Nero used an emerald as an eye-glass; and Gothofred, or Isidorus, supposes that the emerald has a magnifying power. Mr. Falconer imagines it to magnify only from the density of the medium. Mr. Dutens denies that the ancients had any knowledge of the emerald, and in this he is supported by Tavernier, the Abbé Raynal, Harris, and Bruce. The green gems which the ancients called emeralds, were all of inferior quality to those brought from Brasil and Peru; and from the size mentioned of some of them, they are justly supposed to be Fluors: but we read of an emerald island in the Red Sea, and much notice is taken of them, both by naturalists and poets. The greatest difficulty to be surmounted by Mr. Dutens seems to be the archbishop of York's emerald, engraved with a Medusa's head of Grecian sculpture, and brought from Benares; but this, he calls a green ruby, p. 14. See Bruce, i. 206. who says, Theophrastus mentions an emerald of four cubits, and a pyramid
sixty

sixty feet high, composed of four emeralds. And Roderick of Toledo talks of an emerald table in Spain 347 feet long! But Bruce says, likewise, the true emerald is as hard as the ruby. How then are we to distinguish between an emerald and a green ruby? Bruce visited the Emerald Island in the Red Sea, and found nothing more like emeralds than a green chryselline substance, little harder than glass; and this, he adds, is found equally on the continent and the island. Emeralds have been found in Peru, in the barrows of the dead, of a cylindrical form; so that the Peruvians, anciently, must not only have known the gem, but valued it; and must also have possessed the art of cutting it. Ulloa. Mr. Falconer has suggested to me a singular passage in Pliny, which may be applied to Nero's emerald, and which had escaped my notice: *Idem plerumque et concavi ut visum colligant.* Plin. lib. xxxvii. c. 5. or 16 Hard.; so that the emerald mentioned in this instance might truly be considered as an eye-glass for a short sight. F. The whole chapter is so very express, that it is hard to conceive what is an emerald, if Pliny's is not: *Scythicorum Ægyptiorumque tanta est duritia ut vulnerari nequeant.* This seems to express that hardness which the jewellers try by the file.

106. *Σμύρα. Myrrh. D. P.*

“ The myrrh of the moderns is the same as that described by the
 “ ancients, but the tree from which it is obtained is still doubtful.
 “ It is likewise still brought from the same countries, that is, Arabia,
 “ and the western coast of the Red Sea. But the Troglodytic, or
 “ Abyssinian, is preferred to that of Arabia. Murray, *Apparat.*
 “ *Med.* vol. vi. p. 213. See Bruce, vol. v. p. 27. *Omnium prima est*
 “ *quæ Troglodytica appellatur, accepto cognomine a loco in qua*
 “ *provenit*

“provenit, splendens, subviridis ac mordens. Dioscorid. Matthioli,
 “lib. i. c. 67. Plin. lib. xii. c. 15. It was procurable in Arabia,
 “imported from the opposite coast of the Red Sea.” F. F.

Διαφίρσοα τῆς ἄλλης. P.

Of a superior sort.

Ἐκλεκτῆ. P.

Of the best sort.

107. *Spadones*. D. *Eunuchs*.

108. Στακτῆ. *Gum*. D. P.

Ἀχειρμινάια, read *Σμυρνάια*, by Bochart, Geog. Sac. ii. 22. Salm.
 520. Extract or distillation from myrrh, of the finest sort. The
 reading is proved by Salmasius from a similar error in an inedited
 epigram. Minæan; *Σμύρνης Αμμινείας*, Dioscor. lib. i. c. 78. Plinius
 habet *Minæa*, lib. xii. c. 16. and Hesych. Ἀμινάϊον οἶνον. Stephan.
 in voce. F.

109. Στῆμι. Στίμι. P.

Stibium for tinging the eyelids black.

110. Στολαὶ Ἀρσινόητικαί. P.

Women's robes manufactured at Arsinoë or Suez.

111. Στύραξ. *Storax*. P.

One of the most agreeable of the odoriferous resins. There are
 two sorts, storax in the tear, supposed to answer to the ancient styrax

calamita, from its being brought in a hollow reed, or its distillation from it; and common storax, answering to the *stacte styrax*⁶¹ of the ancients. It now grows in the neighbourhood of Rome; but the drug was anciently brought thither from the islands in the Archipelago. See Salm. p. 1026. Chambers in voce. Most of these gums, resins, and balsams have in modern practice yielded to the American, as this seems to have given way to the balsam of Tolu.

112. Σώματα, p. 15. P.

Slaves from Africa, an ancient trade! but the number was not great.

Υ

113. Υάκινθος. D. P.

The hyacinth or jacinth, a gem which Salmasius says is the ruby, p. 1107. See Solinus, c. xxx. p. 57. where it seems to be the amethyst. And Mr. Falconer concludes, that it is an amethyst, from the expression of Pliny, emicans in amethysto fulgor, violaceus dilutus est in Hyacintho; but Hardouin reads, emicans in amethysto fulgor violaceus, dilutus est, &c., and violaceus fulgor is surely the peculiar property of the amethyst. Salmasius adds, that the Oriental name of the Ruby is Yacut from Hyacinthus; but Dutens says the hyacinth is orange Aurora, inclining to poppy, p. 35. and makes the Jacinth a distinct gem from the Ruby; but the Ruby, he observes,

⁶¹ Strabo mentions styrax in Pisidia; a distillation from a tree, caused by a worm breeding in it. Lib. xii. p. 570.

likewise, is of a poppy colour, and is called Hyacinth when it has the least tincture of yellow. Whether this distinction applies to the ancients, I am not a judge to determine; but if the hyacinth is a distinct species, I can find no classical name for the ruby. See Pliny, xxxvii. 9. or 41. Hard. and fulgor violaceus seems appropriate to the amethyst.

Φ

114. *Fucus*. D. *Red Paint*.

X

115. *Χαλκός*. *Brass or Copper*. P.

116. *Χαλκουργήματα*. P.

Vessels of brass, or any sort of brazier's work.

117. *Al-chelucia*, which Ramusio reads *Agallochum*, *Alocs*. D.

Matthioli coincides with Ramusio in the correction. Dioscor. p. 40. "Agallochum is the aloes wood, xylo aloes, lignum aloes, the lign aloes of scripture. Numb. xxiv. 6. and not aloes the drug. The best is heavy, compact, glossy, of a chestnut colour, intermixed with a blackish and sometimes purple shade. It is resinous and balsamic. Neuman's Chemistry, by Lewis." F. F. I was myself disposed to think Chelucia, *χελυκία*, a corruption of *Χελύς*, Chelys, the tortoise, *i. e.* tortoise-shell.

118. *Χελάρη*.

118. Χελώνη. D. P.

Tortoise-shell seems to have formed a great article of commerce, for ornaments of furniture, as beds, tables, doors, &c. both in Italy, Greece, and Egypt. It was brought from the coasts of Africa near Moondus, from Socotra, Gadorfia, Malabar, and the Lackdive, and Maldive Islands, and from Malacca. The latter seems to be deniged by the χρυσιονήσοι of the Periplûs.

119. Χιτώνες. P.

Under garments, imported from Egypt into Africa.

120. Χρῆμα. Specie. P.

The Periplûs is very accurate in noting the ports where it was necessary to trade with specie; and in more instances than one, notes the advantage of exchange.

121. Χρυσόλιθος. Chrysolite. P.

Sometimes the same as chrysites, the touchstone for gold, Salm. p. 1103; but described as a stone as it were sprinkled with spots of gold, Salmasius, p. 407. who points out what it is not, but cannot determine what it is. It may well be the topaz⁶⁰, as Dutens makes it, p. 18.

122. Χρυσόν. P.

Used with δηράριον, as is αργυρέν also, expressing gold and silver denarii.

123. Χρυσάμικτα. Gold Plate. P.

⁶⁰ The Bohemian is yellow, with a greenish tinge; the Oriental is very pale yellow. D. Burge's Oriental topaz, deep yellow.

There is a corrupt passage in the Digest, which appears thus: *Chelynic hopia Indica adserta*.

Gothofred joins it to the preceding article *Beryllus*; and Ramulio reads it *Beryllus Cylindrus*. Salmasius supposes it to be a separate article, and reads it *Chelone Æthiopa*, as one species of the *Chelonia* of Pliny, (xxxvii. 56. Hard.) that is, the genus called the *Æthiopian Tortoise*, and *Chelone Indica*, another species; and it may be added, that this is conformable to the order of the Digest, when it mentions two species of the same article. The passage, however, is much doubted, and is sometimes joined with *adserta*, and sometimes separated. *Hopia Indica adserta*, *opera Indica adserta*, *omnia Indica adserta*, and again *opera Indica, tincta, adtincta, &c. &c.*; but if we accede to Salmasius in regard to the two species of *Chelone*, and place the period at *Indica*; *adserta* may be another general title like *several* in the Digest, and easily converted into *Serica*, it would then stand thus:

<i>Serica</i> ,	-	-	general title,	filk.
<i>Metaxa</i>	-	-	1st species,	- filk thread.
<i>Vestis Serica</i>	-	-	2d species,	- filk web.
<i>Nema Sericum</i> ,	-	-	3d species,	- sewing filk.

The only objection to this is, that *Metaxa* and *Nema Sericum* are usually applied to the same thing. Mr. Falconer supposes that *tincta*, if the reading can be supported, may mean dyed or coloured filks. F.

Camphor. *Kafur, al Kafur,* of the Orientals. I had expected to find this article in the Digest, but as it comes particularly from Java, Sumatra, and Borneo, this may account for its being unnoticed. The history of it occurs in Schikard's *Tarik*, p. 185. who commends Marco Polo for his veracity, (was he not the first who brought the knowledge of it to Europe?) and he adds, that Al Edrissi speaks of Lanchialos, and then Kalan, where Camphor is obtained, and Kalan he supposes to be Borneo. This is a proof that the drug was known to the Arabians in the twelfth century; but the Lanchialos of Al Edrissi is very dubious; he certainly makes it a different island from Ceylon, and yet Lanca llam is one of the Hindoo names of Ceylon. See Al Edrissi. p. 35.

Capilli Indici. D.

THE END.



E R R A T A.

- Page 257. note 75. line 5. for Appendix, No. I. read Appendix, No. III.
 371. line 3. for "Ἰάδος ἀγῆδ", read "Ἰάδος ἀγῆδ".
 372. — 10. insert a full stop after place, and a comma after Pliny.
 380. note 114. line 8. for seivere, read seriv. *sc.*
 480. the running title of *Sequel to the Periplus of the Erythræan Sea*, should have concluded with p. 481.
 494. line 7. *dele* the comma at Mavs, and *place* it at Ptolemy.
 534. line 13. for ⲙⲓⲣⲓⲛⲏⲛⲏ, read ⲙⲓⲣⲓⲛⲏⲛⲏ
 552. — penult. *dele* by any one.
 Appendix, p. 45. note 51. line 3. for Plantagin, read Plantagini.

CORRECTIONS.

- Page 16. Part I. note 20. Why does Wesseling tell me to believe this? This ought not to have been imputed to Wesseling, but to Stevens in Wesseling's edition of Ctesias.
 18. Part I. line 8. The position of Palibothra, fixed by Sir W. Jones, is again rendered dubious by Lieut. Wilford. Asiatic Researches, vol. v. p. 272. Lond. ed.
 27. Part I. note 48. Plutarch does not say what is imputed to him, but the contrary: it never has happened, and never will, *except in that country*. This error is acknowledged with some degree of mortification.
 74. Part I. note 14. Beled signifies a country, not a *castle*.

ADDITIONS.

- Page 275. Part II. The Negra of Cedrenus is Najeran.
 323. Part II. Sanuto's Map is noticed by d'Anville, *Antiq. de l'Inde*, Supplement, p. 187. but not its claim to *antiquity*.



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