



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 δυσμοῖς 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 Phenician 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 Meshech 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 Mesheck, which the Chaldee reads Mosock, is Moschi, while Javan, Tubal and Mesheck 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 Togarma, 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.

4 A 2

Dedan



Dedan is strangely rendered by the septuagint Rhodians. They must, therefore, have read a resh for a daleth; 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 *horns* 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,
Pert 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 Michaelis 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 Tehama, 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 Damascus³¹, and likewise the country about Libanus, and the Orontes. Emeralds, fine linen³², 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 minnith³³, 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

³¹ Aram-Damasek is Damascus, the proper capital of Syria.

³² בצי Butz, Byssus, every where rendered fine linen, is supposed every where to

be cotton.

³³ Minnith occurs in no other passage. Minni is used for Armenia, but can have no application here.

from



from Jericho, where the plant which produces it grew in Maundrel'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, Halebon, 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. 254. Leuncl. See also Ruffel's Aleppo, where it seems the river Kock, chap. i.; and d'Anville's Map of the

Tigris and Euphrates.

²⁵ Bright or wrought iron, in the original.

²⁶ From לך 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 felicitis. 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 (קִדְדָה) khiddah, is cassia, the cassia lignea of the ancients, from (קָד) khâd, to cut or divide lengthways, in contradistinction to kasia fistula⁴¹, the pipe cinnamon, which we now prefer. The (קִנְיָה) 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 קָד. Khadh.

³⁸ Mozel, vulg. Moozil, sept. Turmatim, Chald.

³⁹ דָּן may be Vadan, or and Dan.

⁴⁰ Hazarmaveth, Havilat, 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



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 comely*³³ as the tents of Kedar. These, therefore, are the Arabs of Hedjaz; they have no fixed habitation, but wander throughout the Sahara³⁴; 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.

³³ See the Song of Maifuna, wife of Moab, in Abulfeda, Reiske, p. 116. which presents a true picture of the manners of the Arabs of the Desert.

³⁴ Whence afterwards they were called Saraceni.



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 Sabêa, 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, brodered 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 Ragma in the Sept.; both advancing a step towards the Rhegma of Ptolemy, occasioned

⁴⁶ Raamah is Rema in the Vulgate, and by the y gnain in רַחַמַּי Rhayema.



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



with Elam⁴⁷, Elymais, or Persia, and Aram, Aramêa, 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 Cossæi in later times, and the Persians are sometimes called Kussî or Kissî 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 Eden², to be in Mesopotamia, in that country must both Canneh 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.

² 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 sit 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 sardius⁴⁹, topaz⁵⁰, 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.

⁴⁹ See Lamy, *Introduction 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; *jasphe* has the sound of jasper, and *sapphir* is self evident. I wish *חל*, *iabalom*, which Parkhurst derives from *halam*, to strike, could be ascertained for the diamond; and might we not search the root *חל* *hal*, to move briskly, to irradiate, shine, or glisten. Halil, he adds,

denotes the Morning Star, from its vivid splendour.

⁵⁰ 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.



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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.

4 c

But



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 Compass¹; 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

¹ Ting-nan-chin, or the South-deciding Needle.

adoption



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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 $11\frac{1}{4}$ 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.

APPEN-



APPENDIX.

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 concentrate 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



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 Vectigal,

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, Σιλαφίον εἶδος. Λιευκόν εἶδος. 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 Spicey 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. Ἀβόλλα. *Abolla*. 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



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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 cloke², 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).

2. "Ἀβόλοι νόθοι χρωμάτινοι.

Single cloths dyed and imitating some of a superior or different quality. But see Salmaf. ad Vopiscum.

"Ἀβόλοι, 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 ilk, *shot*, when the warp is of one colour and the woof of another; and the word "Ἀβόλοι 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

¹ The word Abolla is not in Du Cange, but it is in Meursius, who says, that the following article "Ἀβόλοι ought to be read Ἀβόλλαι. The gender of the adjectives used with "Ἀβόλοι is adverse to this supposition.

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 Selène the daughter of Cleopátra, was killed by Caligula, who was a great grandson of Antony, non aliâ de causâ quam quod edente se munus, 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, "Ἀβόλοι χρωμάτων" may be rendered *plain cloths of one colour*, and νόθοι would express that they were of an inferior quality. But see the term διπλόεματος, Diog. Laertius in Diogene, p. 350. Horace. *Duplici' panno patientia velat*. And the address of Plato to Aristippus in Diog. Laert. Aristip. p. 67. Σοὶ μόνῳ 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*. 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. *Alabanda*.

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, Epil. iii. where διπλὴ is opposed to τριπλῇ.

façon.



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fauxon, Nov. Col. Patrum, p. 337. 'Η ΤαπρόΞανη' εἶτα λοιπὸν εἰς τὴν Σερεῶν ἐμπόριον, ἣ Μαραλλῶ βάλλουσα κοχλίες, ἔστι ΚαΞέρ βάλλουσα τὸ ΑλαΞανδηνόν. 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. 'Αλόη. 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*.

4 D 2

7. 'Ανδριάντες.

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. Ἀργυράματα, Ἀργυρᾶ σκεύη, Ἀργυράματα τετρατευμένα. *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*. *Salmasius*† describes it as a pellucid exudation from

* Chambers in voce.

† *Plin. Exercit.* p. 1150.

the



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the tree so called, not quite clear, of a waxy substance, and easily melted, called by the Portuguese *anime*; there are three sorts, Arabian, Petræan, and Bactrian. It was imported, according to the Periplûs, from Binnagara, or Minnagara [Bekker], in Scindi, and from Barygaza [Baroach] in Guzerat.

The בְּדֵלָה Bhedolahh 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 Periplûs 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. Burgefs.

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 Periplûs for any article brought from beyond the Straits of Bab-el-mandeb; or, according to Hardouin, ἐν τῶν πέρατων τῆς γῆς. In Pliny it is evidently a gum; the best sort from Bactria, and the inferior species from Arabia, India, Media, and Babylon. It is also a gum apparently in the Periplûs. F.

13. *Beryllus.*

13. *Beryllus*. D. *Beryl*, *l'Aigue Marine*, *Aqua Marina*.

Some have mistaken it for the cornelian, but the true beryll 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 Byssu Antiquorum*.

Γ

15. *Galbane*, *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 Theriacà.” F. F.

16. Γέζιγ. Ζίγειρ. Γίζι. *A species of Cinnamon*. P. See *Kassia*.

Zigeer 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. *Διρόσσια*,



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Δ

17. Δικρόσσια, p. 8. *Dicrossia*. — Cloths either fringed or striped. P.

Κορσαί and κροσάι, according to Salmasius⁶, 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 κρόσοι, 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 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*. Τῷ γὰρ προκρόσσας ἔρυσαν⁷, 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, ἀποκρηπιδώματα, in *stripes*⁸.

We may therefore conclude, that we cannot err much in rendering the Δικρόσσια of the Periplūs, either cloths *fringed*, with Salmasius, or *striped* with Apollonius. So Virgil, virgatis lucent sagulis. 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, and Meursius in voce, says, λεντία ἄκροσσα are plain linens, not striped.

⁶ Plin. Exercit. p. 762.

⁷ See Lennep in voce.

⁸ See Apollon. Lexicon in voce.



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18. Δηνάριον. *Denarius.*—The Roman coin, worth in general denomination nearly 8d. 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. Δάκκα, Κίττα, Δάκκαρ. 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 Salmas. de Homonymiis Hyles Iatrices, c. xcii. c. xciii. a work referred to by Salmasius himself, but I have not seen it.

20. Δέλικα. 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. Ζῶναι σκιωτάι. P.

Girdles or purses wrought or embroidered. A great commerce throughout the east is still carried on in fashes, ornamented with

* The gold Denarius, according to Arbutnot, was the forty-fifth part of a pound of gold in the age of Nero.

every



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every sort of device, and wrought up with great expence. Σκιωτάι does not occur in the lexicons, but probably means *shaded* of different colours.

25. Ζίγγιβερ. *Ginger.* D. P.

Not mentioned in the Periplûs, but by Salmastius¹¹, 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 Zingi, the name of the African blacks on that coast.

H

26. Ἡμίονοι νωτηγοὶ. *Mules for the saddle.* P.

Θ

27. Θυμίαμα μοκρότε. *Gums or Incense.* D. P. Μοκρότε occurs only in the Periplûs, p. 7. and without any thing to render it intelligible.

I

28. Ἰμάτια βαρβαρίνα ἀγναφα τὰ ἐν Αἰγύπτῳ γινόμενα. *Cloths.* P.

For the Barbarine¹² 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.

¹¹ Plin. Exercit. p. 1070.

¹² The west coast of the Gulph of Arabia.

Ἰμάτια βαρβαρικά σύμμικτα γέγναμμένα. *Cloths.* P.

For the Barbarine market, dressed, and dyed of various colours.

Ἰματισμός Αραβικὸς χειριδωτὸς ὅτε ἀπλῆς καὶ ὁ κοινὸς καὶ σκοτελάτος
καὶ διάχρυσος. *Cloths.* 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 Ἀεολοί. P.

3. Σκοτελάτος. 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. Πολυτελῆς. 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. Πολύμιτα



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9. Πολύμιτα πολύμπα. P. Ezekiel, xxvii. 24. בגלמי במכללים
Polymitorum. Vulgate, &c. *Pallis Hyacinthinis, Chlamy-*
dibus coccineis. Chald. Parap.

Of thicker woof, or larger woof than warp. Q.

29. Ινδικον μελαν. 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. Ἴπποι. *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-
masius rather inclines to think it a drug like myrrh. Lack was used
as a purple or blue dye by the Indigo dyers. *Ινδικοβαφοί*. 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, Brazil, and Saint Christopher's.
Pomet's Specimen was from the West Indies.

32. Κάλτις. *Kaltis—A Gold Coin*. P.

According to the Periplūs 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

4 E 2

Bengal,

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 Ayeen Acbari at present. Af. Ref. vol. v. p. 269.

33. Καρδάμωμον. *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 Salmasius, 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. Affyrium amomum, equivalent to Median. Galen says it is considerably warm: θερμῆς δυνάμεως ἰκανῶς. Stephan. in voce. The Καρδάμωμον ἡδίον καὶ ἀρωματικώτερον, τῆς θερμῆς δυνάμεως ἀσθενεστέρας. Stephan. in



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 Elettari." F. F. What is added must compel me to retract my supposition, that amomum expresses warmth and pungency. "No-târunt viri docti ἄμωμον λιβανῶτον, thus esse et sincerum et inculpatum, veteresque ἄμωμον vocâsse omne aroma quod purum et non vitiatum esset. Bodæus a Stapel. Theophrast. p. 981. Stephan. in voce, Ἀμωμον." E. F. But in Stevens I find Λίβανος ἀμωμίτης, and not ἄμωμον 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 Periplûs, 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. *Karpasus—Fine Mullins.* D. P.

Opposed to ordinary cottons. It is remarkable that the native Shanskreect term is *Karpasi*, 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 λίνου 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.

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 Salmasius of Σινδόνης μαργαρίτιδες, for Σινδόνης Εβαργεΐτιδες. *Peripl.* p. 34. So Lucan also, *Pharf.* iii. 239.

Fluxa coloratis astringunt carbasa gemmis. F. *Karpefium* is a medicinal juice. *Dioscor.* A poisonous juice. *Galen.* It is a substitute for cinnamon, or a species of that spice. Ἀντὶ Κινναμώμης Καρπήσιον. And ἀντὶ Κινναμώμης Κασίας τὸ διπλὺν ἢ Καρπήσιον. The different species are unknown. *Salmaf.* p. 1306.—Has Καρπήσιον any reference to the Κάριφν 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 *Periplus* 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 *Periplus*, 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 ejus 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. . . . *Caryophyllum* 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 *Periplus*, 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 *Periplus*, 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 Salmasius.

37. *Κασσία. 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 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.

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 interrafilii) 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 farmento), 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 (brevis tunicarum

¹² Pliny.

fistulâ



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fistulâ 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, "*fottile di rami*," a very fine spray, with frequent knots, and smooth between the joints. Salmasius cites Galen, who compares the Karpasium τοῖς Κινναμώμει 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 Linnæus, Combes, Philos. Transact. 1780, p. 873.; Doffie's Memoirs of Agriculture, p. 202.; Solander; Thunberg, Vet. Acad. Hanbl. 1780, p. 56.; and Murray, Apparatus Med. vol. iv. pp. 441, 442. edit. Gotting. 1787) writes thus: "I myself

4 F

" compared

“ compared two bundles, one of casia and another of cinnamon,
 “ and in presence of all the physicians and surgeons of the Ge-
 “ neral 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 cinna-
 mon of Ceylon, and the casia (say) of Sumatra. He then adds :
 “ Perhaps it may be true that the small branches were called cinna-
 “ mon [by the ancients], but the difference between that and casia
 “ was small. Galenus palam prodit (inquit Matthiolus in Diosco-
 “ ridem) cassiam sæpenumero in cinnamomum transmutari, fate-
 “ turque se vidisse cassiæ *ramulos* omni ex parte cinnamomum refe-
 “ rentes, contra pariter inspexisse cinnamomi furculos cassiæ prorsus
 “ persimiles. Matthiol. Dioscor. p. 34. he says, the sticks of cin-
 “ namon are not in length above half a Roman foot; and Diosco-
 “ rides, in Matthioli’s translation, uses the words *tenuibus ramu-
 “ lis.*” 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 Phœnicians¹, 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 Phœnician², because the merchants of that country
 first brought it into Greece. The Greeks themselves had no direct

¹ Herodotus, lib. iii. p. 252. ed. Wess.

by Larcher, of turning the Phœnicians into a
 phoenix. Tom. iii. p. 349.

² See a curious mistake of Pliny’s noticed

commu-



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 khench is the Latin canna; and fyrinx, 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 קדה 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 fyrinx, 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 quæ 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 arte hoc trecentos et amplius annos, casiam fistulam Latinis dictam, eam quæ 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 khench-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. Casia-fyrinx, Xylo-casia. Salm. 1055. id. in Canticis Salomonis, Nardus, Crocus, Fistula cinnamomum. It is called *Examporis*, Hard Casia, in the Periplus.

" קנה 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, khanam, to smell strong, but he allows there is no such verb in Hebrew.

I cannot help thinking that קנה, kheneh besem, and קנה, khinnemon besem, have the same root. The sweet kheneh, the sweet khinnemon. Notwithstanding kheneh besem 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 Barbarians of Adel or Mesyllon. It is the mart in Scindia; but whether Patala or Minnagara, is difficult to determine.



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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, straight, 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 marts 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. 348. He is equally indebted to Salmasius as myself.

²⁵ See Larcher's whole Dissertation, tom. iii. ²⁶ Hoffman in voce.

mon



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 *de-*
vehitur. 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 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, aromatic 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 Sabêa 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. West. and p. 250. where he mentions a similar fable of serpents which guard the frankincense.

³¹ Κάσσιος, from Κάσσω, 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, As. Res. iv. 110. 113.

³³ Ἡ χώρα τῶν Ἀβασσηνῶν φέρει καὶ ὄσπον [quod ὄσπ] καὶ θυμιάματα καὶ ΚΕΡΠΑΘΟΝ. Bochart, vol. i. p. 106. Κέρπαθον is probably the Κάσσιος of Herodotus, unless it is a false reading for Κάσπαθον or Κάσπασσον, one of the terms for cotton.

still



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.

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



The ten forts in the *Periplus* are,

I. Μοσυλλιτικὴ. *Mosyllitick*. P.

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, woody³⁴, 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 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 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 Epiphanes³⁵ 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

³⁴ 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 σκληροτέρα.

³⁵ 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 Cochin³⁶, 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, Γίξι. *Gizeir, Zigeir, Gizi.* P.

This sort is noticed and described by Dioscorides, as already mentioned; and to his description I can only add, that zigeir, in Persian and Arabic, 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. *Asuphè.* P. *Asyphemo* 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.

³⁶ 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.

³⁷ I doubt this relation at the same time I notice it; but an inquiry might still be made, whether the Greek term *asfa* be not a corruption of *gizi*.

4. Ἀρώμα.



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4. Ἀρώμα. *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. *Móglā*. P.

A species unknown.

6. Μοτώ. *Motó*. P.

A species unknown.

7. Σκληροτερά. *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. Δάκα, Κίττα, Δάκαρ. *Dooka*, *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*.

4 G 2

Turiana



Turiana and Thymiama are expressions for the same thing in Latin and Greek—Incense. Kasia was mixed perhaps with incense in the temples, as well as other aromatic gums and odours. See Hoffman in Thymiama. But Dr. Falconer supposes these not to be different species of casia, or mixtures with it, but simply thus and thymiama; which, however, xylo casia seems to contradict. He thinks also, "that turiana may be the laurus casia which grows in Spain, on the river Turia or Guadalaviar."

"Floribus et roseis formosus Turia ripis."

Claudian de Laudibus Sereñæ, 72.

These are the ten sorts enumerated in the *Periplus*³⁸. 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



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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. *Καπν-*



39. Καττυβυρίνη, Πατροπαπίγη, Καβαλίτη. *Kattyburinè, Patropapigè, Kabalitè*. Peripl. p. 28.

Different species of nard. See Νάρδος. P.

40. Καυνάκαι απλοὶ ὢ πολλῶ. *Kaunakai*. 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 chrysal.

2. Another red, like a carbuncle.

He thinks the chrysal to be the true *ceraunium*; and that Claudian is mistaken when he writes,

Pyreusilque sub antris
Ignea fulmineæ legere Ceraunia nymphae.

42. Κολανδιόφοντα. *Kolandiphonta*. 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. Κόστος⁴¹. *Costus, Costum*. D. P.

Is considered as a spice and aromatic by Pliny, lib. xii. c. 12.

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.



APPENDIX.

35

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 folium⁴² 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 forts, black and white, the black is the inferior fort, and the white best. Its value is sixteen denarii⁴³, 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 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 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. Asiaticæ* 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 *Nagdos*.

⁴³ The numbers in Pliny are dubious.

momum.



momum. (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 (*ἀμωμὸς*, 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 quo-*
" *niam thure supplicamus et costo.* Plin. xxii. 24. *Costum molle*
" *date et blandi mihi thuris odores. Ure puer costum Assyrium*
" *redolentibus aris.* Propert. lib. iv. *Πλεῖσθην ἔχων καὶ ἡδαιὼν ὀσμήν*
" *Diosc.—II. Pungency; both costus and costamomum are said to*
" *be of a warm, pungent quality: Πλεῖσθης δὲ τῆς δριμύτητος καὶ θερμῆς*
" *μετέχει ποιοτήτος καὶ δυνάμεως.* Galen. *Gustu fervens,* Pliny.—It is
" mentioned in the Geoponica, as one of the ingredients for making
" the spiced wine, called *πανακεία*. 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 Apuliæ monte.*—Of the
costus brought from the East Indies there are two sorts, but seldom