

# NOTES

AND

## ILLUSTRATIONS.

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### NOTE I. SECT. I. p. 7.

CREDULITY and scepticism are two opposite extremes into which men are apt to run, in examining the events which are said to have happened in the early ages of antiquity. Without incurring any suspicion of a propensity to the latter of these, I may be allowed to entertain doubts concerning the expedition of Sesostris into India, and his conquest of that country.—1. Few facts in ancient history seem to be better established, than that of the early aversion of the Egyptians to a seafaring life. Even the power of despotism cannot at once change the ideas and manners of a nation, especially when they have been confirmed by long habit, and rendered sacred by the sanction of religion. That Sesostris, in the course of a few years, should have so entirely overcome the prejudices of a superstitious people, as to be able to fit out four hundred ships of force in the Arabian Gulf, besides another fleet which he had in the Mediterranean, appears to be extremely improbable. Armaments of such magnitude would require the utmost efforts of a great and long established maritime power.—2. It is remarkable.

that Herodotus, who inquired with the most persevering diligence into the ancient history of Egypt, and who received all the information concerning it which the priests of Memphis, Heliopolis, and Thebes could communicate, Herodot. Edit. Wesselingij, lib. ii. c. 3. although he relates the history of Sesostris at some length, does not mention his conquest of India, lib. ii. c. 102, &c. That tale, it is probable, was invented in the period between the age of Herodotus and that of Diodorus Siculus, from whom we receive a particular detail of the Indian expedition of Sesostris. His account rests entirely upon the authority of the Egyptian priests; and Diodorus himself not only gives it as his general opinion, "that many things which they related, flowed rather from a desire to promote the honour of their country, than from attention to truth," lib. i. p. 34. Edit. Wesselingij, Amst. 1746; but takes particular notice that the Egyptian priests, as well as the Greek writers, differ widely from one another in the accounts which they give of the actions of Sesostris, lib. i. p. 62.—3. Though Diodorus asserts, that in relating the history of Sesostris he had studied to select what appeared to him most probable, and most agreeable to the monuments of that monarch still remaining in Egypt, he has admitted into his narrative many marvellous circumstances, which render the whole extremely suspicious. The father of Sesostris, as he relates, collected all the male children who were born in Egypt on the same day with his son, in order that they might be educated together with him, conformable to a mode which he prescribed, with a view of preparing them as proper instruments to carry into execution the great undertakings for which he destined Sesostris. Accordingly, when Sesostris set out upon his Indian expedition, which, from circumstances mentioned by Diodorus, must have been about the fortieth year of his age, one thousand seven hundred of his youthful associates are said to have

been still alive, and were intrusted with high command in his army. But if we apply to the examination of this story the certain principles of political arithmetic, it is evident, that if one thousand seven hundred of the male children born on the same day with Sesostris were alive when his great expedition commenced, the number of children born in Egypt on each day of the year must have been at least ten thousand, and the population of the kingdom must have exceeded sixty millions; Goguet *l'Origine des Loix, des Arts, &c.* tom. ii. p. 12, &c. a number far beyond the bounds of credibility, in a kingdom which, from the accurate calculations of M. D'Anville, *Memoire sur l'Egypte Anc. et Moderne*, p. 23, &c. does not contain more than two thousand one hundred square leagues of habitable country. *Decline and Fall of the Rom. Emp.* vol. v. p. 348. Another marvellous particular is the description of a ship of cedar, four hundred and ninety feet in length, covered on the outside with gold, and on the inside with silver, which Sesostris consecrated to the Deity who was the chief object of worship at Thebes. *Lib. i. p. 67.* Such too is the account he gives of the Egyptian army, in which, beside six hundred thousand infantry, and twenty-four thousand cavalry, there were twenty-seven thousand armed chariots. *Ibid. p. 64.*—4. These and other particulars appeared so far to exceed the bounds of probability, that the sound understanding of Strabo the geographer rejected, without hesitation, the accounts of the Indian expedition of Sesostris; and he not only asserts, in the most explicit terms, that this monarch never entered India, *lib. xv. p. 1007. C. Edit. Casaub. Amst. 1707;* but he ranks what has been related concerning his operations in that country with the fabulous exploits of Bacchus and Hercules, *p. 1007. D. 1009. B.* The philosophical historian of Alexander the Great seems to have entertained the same sentiments with respect to the exploits of Sesostris in

India, Hist. Ind. c. 5. Arrian Exped. Alex. Edit. Gronov. L. Bat. 1704. What slender information concerning India, or its inhabitants, Herodotus had received, seems to have been derived, not from the Egyptians, but from the Persians, lib. iii. c. 105.; which renders it probable, that in his time there was little intercourse between Egypt and India. If Reland be well founded in his opinion, that many of the words mentioned by ancient authors as Indian are really Persian, we may conclude that there was an early intercourse between Persia and India, of which hardly any trace remains in history. Reland, Dissert. de Veteri Lingua Indic. ap. Dissert. Miscel. vol. i. p. 209.

NOTE II. SECT. I. p. 8.

WHEN we consider the extent and effects of the Phœnician commerce, the scanty information concerning it which we receive from ancient writers must, on a first view, appear surprising. But when we recollect that all the Greek historians, (Herodotus excepted), who give any account of the Phœnicians, published their works long after the destruction of Tyre by Alexander the Great, we will cease to wonder at their not having entered into minute details with respect to a trade which was then removed to new seats, and carried on in other channels. But the power and opulence of Tyre, in the prosperous age of its commerce, must have attracted general attention. In the prophecies of Ezekiel, who flourished two hundred and sixty years before the fall of Tyre, there is the most particular account of the nature and variety of its commercial transactions that is to be found in any ancient writer, and which conveys at the same time a magnificent idea of the extensive power of that state. Ch. xxvi. xxvii. xxviii.

## NOTE III. SECT. I. p. 12.

THE account given of the revenue of the Persian monarchy by Herodotus is curious, and seems to have been copied from some public record which had been communicated to him. According to it, the Persian empire was divided into twenty satrapys, or governments. The tribute levied from each is specified, amounting in all to 14,560 Eubœan talents, which Dr Arbuthnot reckons to be equal to L.2,807,437 sterling money; a sum extremely small for the revenue of the Great King, and which ill accords with many facts, concerning the riches, magnificence, and luxury of the East, that occur in ancient authors.

## NOTE IV. SECT. I. p. 15.

MAJOR RENNELL, in the second edition of his Memoir, has traced, from very imperfect materials, the routes by which Alexander, Tamerlane, and Nadir Shah penetrated into India, with a degree of accuracy which does honour to his discernment, and displays the superiority of his knowledge in the ancient and modern geography of that country. His researches he has illustrated by an additional map. To these I must refer my readers. Nor are they to consider his laborious investigation merely as an object of curiosity; the geography of that fertile and extensive region of India, distinguished by the name of *Panjab*, with which we are at present little acquainted, may soon become very interesting. If, on the one hand, that firm foundation on which the British empire in India seems to be established, by the successful termination of the late war, remains unshaken;—if, on the

other hand, the Seiks, a confederacy of several independent states, shall continue to extend their dominions with the same rapidity that they have advanced since the beginning of the current century; it is highly probable that the enterprising commercial spirit of the one people, and the martial ardour of the other, who still retain the activity and ardour natural to men in the earliest ages of social union, may give rise to events of the greatest moment. The frontiers of the two states are approaching gradually nearer and nearer to each other, the territories of the Seiks having reached to the western bank of the river Jumnah, while those of the Nabob of Oude stretch along its eastern bank. This Nabob, the ally or tributary of the East India Company, is supported by a brigade of the Bengal army, constantly stationed on his western frontier. Ren. Mem. Introd. p. cxvi. In a position so contiguous, rivalry for power, interference of interest, and innumerable other causes of jealousy and discord, can hardly fail of terminating, sooner or later, in open hostility. The Seiks possess the whole Soubah of Lahore, the principal part of Moultan, and the western part of Delhi. The dimensions of this tract are about 400 British miles from N. W. to S. E. varying in breadth from 320 to 150 miles. Their capital city is Lahore. Little is known concerning their government and political maxims; but they are represented as mild. In their mode of making war, they are unquestionably savage and cruel. Their army consists almost entirely of horse; of which they can bring at least 100,000 into the field. Maj. Ren. Mem. 2d edit. Introd. p. cxxi. cxxii. and p. 365. See also Mr Craufurd's Sketches, 2d edit. vol. ii. p. 263, &c.

## NOTE V. SECT. I. p. 17.

IT is surprising that Alexander did not receive, in the provinces contiguous to India, such an account of the periodical rains in that country, as to shew him the impropriety of carrying on military operations there while these continued. His expedition into India commenced towards the end of spring, Arrian, lib. iv. c. 22. when the rains were already begun in the mountains from which all the rivers in the Panjab flow, and of course they must have been considerably swelled before he arrived on their banks, Rennell, p. 268.—He passed the Hydaspes at midsummer, about the height of the rainy season. In a country through which so many large rivers run, an army on service at this time of the year must have suffered greatly. An accurate description of the nature of the rains and inundations in this part of India, is given by Arrian, lib. v. c. 9.; and one still fuller may be found in Strabo, lib. xv. 1013.—It was of what they suffered by these that Alexander's soldiers complained, Strabo, lib. xv. 1021. D.; and not without reason, as it had rained incessantly during seventy days, Diod. Sicul. xvii. c. 94.—A circumstance which marks the accuracy with which Alexander's officers had attended to every thing in that part of India, deserves notice. Aristobulus, in his Journal, which I have mentioned, observes, that though heavy rains fell in the mountains, and in the country near to them, in the plains below not so much as a shower fell. Strabo, lib. xv. 1013. B. 1015. B. Major Rennell was informed by a person of character, who had resided in this district of India, which is now seldom visited by Europeans, that during great part of the S. W. monsoon, or at least in the months of July, August, and part of September, which is the rainy season in most other parts of India,

the atmosphere in the Delta of the Indus is generally clouded, but no rain falls except very near the sea. Indeed, very few showers fall during the whole season. Captain Hamilton relates, that when he visited Tatta, no rain had fallen for three years before. *Memoirs*, p. 288.—Tamerlane, who, by the vicinity of the seat of his government to India, had the means of being well informed concerning the nature of the country, avoided the error of Alexander, and made his Indian campaign during the dry season. As Nadir Shah, both when he invaded India, A. D. 1738, and in his return next year, marched through the same countries with Alexander, and nearly in the same line of direction, nothing can give a more striking idea of the persevering ardour of the Macedonian conqueror, than the description of the difficulties which Nadir Shah had to surmount, and the hardships which his army endured. Though possessed of absolute power and immense wealth, and distinguished no less by great talents than long experience in the conduct of war, he had the mortification to lose a great part of his troops in crossing the rivers of the Panjab, in penetrating through the mountains to the north of India, and in conflicts with the fierce natives inhabiting the countries which stretch from the banks of the Oxus to the frontiers of Persia. An interesting account of his retreat and sufferings is given in the *Memoirs of Khojeh Abdulkurren*, a Cashmerian of distinction, who served in his army.

NOTE VI. SECT. I. p. 19.

THAT a fleet so numerous should have been collected in such a short time, is apt to appear, at first sight, incredible. Arrian, however, assures us, that in specifying this number he followed Ptolémy, the son of Lagus, whose authority he considered to be of the greatest



weight, lib. vi. c. 3. But as the Panjab country is full of navigable rivers, on which all the intercourse among the natives was carried on, it abounded with vessels ready constructed to the conqueror's hands, so that he might easily collect that number. If we could give credit to the account of the invasion of India by Semiramis, no fewer than four thousand vessels were assembled in the Indus to oppose her fleet. Diod. Sicul. lib. ii. c. 74.—It is remarkable, that when Mahmoud of Gazna invaded India, a fleet was collected on the Indus to oppose him, consisting of the same number of vessels. We learn from the Ayeen Akbery, that the inhabitants of this part of India still continue to carry on all their communication with each other by water: the inhabitants of the Circar of Tatta alone have not less than forty thousand vessels of various constructions. Vol. ii. p. 143.

NOTE VII. SECT. I. p. 21.

ALL these particulars are taken from the Indian History of Arrian, a work different from that already mentioned, and one of the most curious treatises transmitted to us from antiquity. The first part of it consists of extracts from the account given by Nearchus of the climate and soil of India, and the manners of the natives. The second contains that officer's journal of his voyage from the mouth of the Indus to the bottom of the Persian Gulf. The perusal of it gives rise to several observations.—1. It is remarkable that neither Nearchus, nor Ptolemy, nor Aristobulus, nor even Arrian, once mention the voyage of Scylax. This could not proceed from their being unacquainted with it, for Herodotus was a favourite author in the hands of every Greek who had any pretensions to literature. It was probably occasioned by the reasons which they had to distrust the veracity of Scylax, of

which I have already taken notice. Accordingly, in a speech which Arrian puts into the mouth of Alexander, he asserts that, except Bacchus, he was the first who had passed the Indus; which implies that he disbelieved what is related concerning Scylax, and was not acquainted with what Darius Hystaspes is said to have done, in order to subject that part of India to the Persian crown. Arrian, vii. c. 10. This opinion is confirmed by Megasthenes, who resided a considerable time in India. He asserts that, except Bacchus and Hercules, (to whose fabulous expeditions Strabo is astonished that he should have given any credit, lib. xv. p. 1007. D.), Alexander was the first who had invaded India; Arrian, Hist. Indic. c. 5. We are informed by Arrian, that the Assacani, and other people who possessed that country which is now called the kingdom of Candabar, paid tribute, first to the Assyrians, and afterwards to the Medes and Persians; Hist. Indic. c. 1. As all the fertile provinces on the north-west of the Indus were anciently reckoned to be part of India, it is probable that what was levied from them is the sum mentioned in the tribute-roll, from which Herodotus drew his account of the annual revenue of the Persian empire, and that none of the provinces to the south of the Indus were ever subject to the Kings of Persia.—2. This voyage of Nearchus affords some striking instances of the imperfect knowledge which the ancients had of any navigation different from that to which they were accustomed in the Mediterranean. Though the enterprising genius and enlarged views of Alexander prompted him to attempt opening an intercourse, by sea, between India and his Persian dominions, yet both he and Nearchus knew so little of the ocean which they wished to explore, as to be apprehensive that it might be found impossible to navigate it, on account of impervious straits, or other obstacles. Hist. Indic. c. 20. Q. Curt. lib. ix. c. 9. When the fleet arrived near the mouth of the Indus, the astonishment

excited by the extraordinary flow and ebb of tide in the Indian Ocean, a phenomenon (according to Arrian) with which Alexander and his soldiers were unacquainted, lib. vi. c. 19. is another proof of their ignorance in maritime science. Nor is there any reason to be surprised at their astonishment, as the tides are hardly perceptible in the Mediterranean, beyond which the knowledge of the Greeks and Macedonians did not extend. For the same reason, when the Romans carried their victorious arms into the countries situated on the Atlantic Ocean, or on the seas that communicate with it, this new phenomenon of the tides was an object of wonder and terror to them. Cæsar describes the amazement of his soldiers at a spring-tide, which greatly damaged the fleet with which he invaded Britain, and acknowledges that it was an appearance with which they were unacquainted; Bell. Gallic. lib. iv. c. 29. The tides on the coast near the mouth of the Indus are remarkably high, and the effects of them very great, especially that sudden and abrupt influx of the tide into the mouths of rivers, or narrow straits, which is known in India by the name of *The Bore*, and is accurately described by Major Rennell, Introd. xxiv. Mem. 278. In the *Periplus Maris Erythræi*, p. 26. these high tides are mentioned, and the description of them nearly resembles that of the Bore. A very exaggerated account of the tides in the Indian Ocean is given by Pliny, Nat. Hist. lib. xiii. c. 25. Major Rennell seems to think, that Alexander and his followers could not be so entirely unacquainted with the phenomenon of the tides, as Herodotus had informed the Greeks, "that in the Red Sea there was a regular ebb and flow of the tide every day;" lib. ii. c. 11. This is all the explanation of that phenomenon given by Herodotus. But among the ancients there occur instances of inattention to facts, related by respectable authors, which appear surprising in modern times. Though Herodotus, as I have just now observed, gave

an account of the voyage performed by Scylax at considerable length, neither Alexander nor his historians take any notice of that event. I shall afterwards have occasion to mention a more remarkable instance of the inattention of later writers to an accurate description which Herodotus had given of the Caspian Sea. From these, and other similar instances which might have been produced, we may conclude, that the slight mention of the regular flow and ebb of tide in the Red Sea, is not a sufficient reason for rejecting, as incredible, Arrian's account of the surprise of Alexander's soldiers when they first beheld the extraordinary effects of the tide at the mouth of the Indus.—3. The course of Nearchus's voyage, the promontories, the creeks, the rivers, the cities, the mountains, which came successively in his view, are so clearly described, and the distances of such as were most worthy of notice are so distinctly marked, that M. D'Anville, by comparing these with the actual position of the country, according to the best accounts of it, ancient as well as modern, has been able to point out most of the places which Nearchus mentions, with a degree of certainty which does as much honour to the veracity of the Grecian navigator, as to the industry, learning, and penetration of the French geographer. *Mem. de Literat.* tom. xxx. p. 132, &c.

IN modern times, the Red Sea is a name appropriated to the Arabian Gulf, but the ancients denominated the ocean which stretches from that Gulf to India, the Erythraean Sea, from King Erythras, of whom nothing more is known than the name, which in the Greek language signifies red. From this casual meaning of the word, it came to be believed that it was of a different colour from other seas, and consequently of more dangerous navigation.

## NOTE VIII. SECT. I. p. 27.

ALEXANDER was so intent on rendering this union of his subjects complete, that after his death there was found in his tablets or commentaries, (among other magnificent schemes which he meditated), a resolution to build several new cities, some in Asia, and some in Europe, and to people those in Asia with Europeans, and those in Europe with Asiatics, "that, (says the historian), by intermarriages, and exchange of good offices, the inhabitants of these two great continents might be gradually moulded into a similarity of sentiments, and become attached to each other with mutual affection." Diod. Sicul. lib. xviii. c. 4.

THE Oriental historians have mingled the little that they know concerning the transactions of European nations, particularly concerning the reign of Alexander the Great, and his conquest of Persia, with so many fabulous and incredible circumstances, that hardly any attention is due to them. Though they misrepresented every event in his life, they entertained an high idea of his great power, distinguishing him by the appellation of *Escander Dhûlcarnein*, i. e. the *Two-horned*, in allusion to the extent of his dominions, which, according to them, reached from the western to the eastern extremity of the earth. Herbelot, Bib. Orient. Article *Escander*. Anc. Univ. Hist. vol. v. 8vo. edit. p. 433. Richardson's Dissert. prefixed to his Dictionary of the Persian and Arabic, p. xii. Whether the historians of Indostan have given an account of Alexander's invasion of India with greater accuracy, cannot be known, until some of their works, written in the Sanskreet, are translated. That some traditional knowledge of Alexander's invasion of India is still preserved in the northern provinces of the Peninsula,

is manifest from several circumstances. The Rajahs of Chitore, who are esteemed the most ancient establishment of Hindoo Princes, and the noblest of the Rajahpout tribes, boast of their descent from Porus, famous as well in the east as in the west for his gallant opposition to the Macedonian conqueror. Orme's Frag. p. 5. Major Rennell has informed me, by accounts lately received from India, and confirmed by a variety of testimonies, that in the country of Kuttore, the eastern extreme of the ancient Bactria, a people who claimed to be the descendants of Alexander's followers were existing when Tamerlane invaded that province. In Bijore, a country more to the west in the same district, the Bazira of Alexander, there is a tribe at this day which traces its origin to certain persons left there by the conqueror when he passed through that province. Both Abul Fazel, and Soojah Rae, an eastern historian of good reputation, report this tradition without any material variation. The latter indeed adds, that these Europeans, if we may call them so, continued to preserve that ascendancy over their neighbours, which their ancestors may be supposed to have possessed when they first settled here. Although we should reject this pedigree as false, yet the bare claim argues the belief of the natives, for which there must have been some foundation, that Alexander not only conquered Bijore, but also transferred that conquest to some of his own countrymen. Rennell, Mem. 2d edit. p. 162. The people of Bijore had likewise an high idea of Alexander's extensive authority; and they, too, denominated him the *Two-horned*, agreeably to the striking emblem of power in all the eastern languages. Ayeen Akbery, xi. 194. Many instances of this emblem being used, will occur to every person accustomed to read the sacred Scriptures.

## NOTE IX. SECT. I. p. 28.

IT seems to be an opinion generally received, that Alexander built only two cities in India, Nicæa, and Bucephalia, situated on the Hydaspes, the modern Chelum, and that Craterus superintended the building of both. But it is evident from Arrian, lib. v. c. ult. that he built a third city on the Acesines, now the Jenaub, under the direction of Hephæstion; and if it was his object to retain the command of the country, a place of strength on some of the rivers to the south of the Hydaspes seems to have been necessary for that purpose. This part of India has been so little visited in modern times, that it is impossible to point out with precision the situation of these cities. If P. Tiessenthaler were well founded in his conjecture, that the river now called Rauvee is the Acesines of Arrian, Bernouilli, vol. i. p. 39. it is probable that this city was built somewhere near Lahore, one of the most important stations in that part of India, and reckoned in the Ayeen Akbery to be a city of very high antiquity. But Major Rennell, in my opinion, gives good reasons for supposing the Jenaub to be the Acesines of the ancients.

## NOTE X. SECT. I. p. 29.

THE religious scruples which prevented the Persians from making any voyage by sea, were known to the ancients. Pliny relates of one of the Magi, who was sent on an embassy from Tiridates to the emperor Nero, "Navigare noluerat, quoniam exspuere in maria, aliisque "mortalium necessitatibus violare naturam eam, fas non "putant;" Nat. Hist. lib. xxx. c. 2. This aversion to the sea they carried so far, that, according to the obser-

vation of a well-informed historian, there was not a city of any note in their empire built upon the sea-coast; Ammian. Marcel. lib. xxiii. c. 6. We learn from Dr Hyde, how intimately these ideas were connected with the doctrines of Zoroaster; Rel. Vet. Pers. cap. vi. In all the wars of the Persians with Greece, the fleets of the Great King consisted entirely of ships furnished by the Phœnicians, Syrians, the conquered provinces of the Lesser Asia, and the islands adjacent. Herodotus and Diodorus Siculus mention the quota furnished by each country, in order to compose the fleet of twelve hundred ships with which Xerxes invaded Greece, and among these there is not one belonging to Persia. At the same time it is proper to observe, that, according to Herodotus, whose authority is unexceptionable with regard to this point, Ariabignes, a son of Darius, acted as admiral of the Persian fleet, and had several satraps of high rank under his command, and both Persians and Medes served as soldiers on board it; Herod. lib. vii. c. 96, 97. By what motives, or what authority, they were induced to act in this manner, I cannot explain. From some religious scruples, similar to those of the Persians, many of the natives of Indostan, in our own time, refuse to embark on board a ship, and to serve at sea; and yet, on some occasions, the sepoys in the service of the European powers have got the better of these scruples.

## NOTE XI. SECT. I. p. 30.

M. LE BARON DE SAINTE-CROIX, in his ingenious and learned Critique des Historiens d'Alexandre le Grand, p. 96. seems to entertain some doubt with respect to the number of the cities which Alexander is said to have built. Plutarch de Fort. Alex. affirms, that he founded no fewer than seventy. It appears from many passages



in ancient authors, that the building of cities, or, what may be considered as the same, the establishment of fortified stations, was the mode of maintaining their authority in the conquered nations, adopted not only by Alexander, but by his successors. Seleucus and Antiochus, to whom the greater part of the Persian empire became subject, were no less remarkable for founding new cities than Alexander, and these cities seemed fully to have answered the purposes of the founders, as they effectually prevented (as I shall afterwards have occasion to observe) the revolt of the conquered provinces. Though the Greeks, animated with the love of liberty and of their native country, refused to settle in the Persian empire while under the dominion of its native monarchs, even when allured by the prospect of great advantage, as M. de Sainte-Croix remarks, the case became perfectly different when that empire was subjected to their own dominion, and they settled there, not as subjects, but as masters. Both Alexander and his successors discovered much discernment in choosing the situation of the cities which they built. Seleucia, which Seleucus founded, is a striking instance of this, and became hardly inferior to Alexandria in number of inhabitants, in wealth, and in importance. Mr Gibbon, vol. i. p. 250. M. D'Anville, Mem. de Literat. xxx.

## NOTE XII. SECT. I. p. 33.

IT is from Justin we receive the slender knowledge we have of the progress which Seleucus made in India, lib. xv. c. 4. But we cannot rely on his evidence, unless when it is confirmed by the testimony of other authors. Plutarch seems to assert, that Seleucus had penetrated far into India; but that respectable writer is more eminent for his discernment of characters, and his happy

selection of those circumstances which mark and discriminate them, than for the accuracy of his historical researches. Pliny, whose authority is of greater weight, seems to consider it as certain, that Seleucus had carried his arms into districts of India which Alexander never visited; Plin. Nat. Hist. lib. vi. c. 17. The passage in which this is mentioned is somewhat obscure, but it seems to imply, that Seleucus had marched from the Hyphasis to the Hysudrus, from thence to Palibothra, and from that to the mouth of the Ganges. The distances of the principal stations in this march are marked, the whole amounting to 2244 Roman miles. In this sense M. Bayer understands the words of Pliny; *Histor. Regni Græcorum Bactrini*, p. 37. But to me it appears highly improbable, that the Indian expedition of Seleucus could have continued so long as to allow time for operations of such extent. If Seleucus had advanced as far into India as the mouth of the Ganges, the ancients must have had a more accurate knowledge of that part of the country than they seem ever to have possessed.

NOTE XIII. SECT. I. p. 34.

MAJOR RENNELL gives a magnificent idea of this, by informing us, that "the Ganges, after it has escaped from the mountainous tract in which it had wandered above eight hundred miles," *Mem.* p. 233. "receives in its course through the plains eleven rivers, some of them as large as the Rhine, and none smaller than the Thames, besides as many more of lesser note;" p. 257.

## NOTE XIV. SECT. I. p. 34.

IN fixing the position of Palibothra, I have ventured to differ from Major Rennell, and I venture to do so with diffidence. According to Strabo, Palibothra was situated at the junction of the Ganges and another river; lib. xv. p. 1028. A. Arrian is still more explicit. He places Palibothra at the confluence of the Ganges and Erranaboas, the last of which he describes as less than the Ganges or Indus, but greater than any other known river; Hist. Ind. c. 10. This description of its situation corresponds exactly with that of Allahabad. P. Boudier, to whose observations the geography of India is much indebted, says, that the Jumna, at its junction with the Ganges, appeared to him not inferior in magnitude to that river; D'Anville, *Antiq. de l'Inde*, p. 53. Allahabad is the name which was given to that city by the Emperor Akbar, who erected a strong fortress there; an elegant delineation of which is published by Mr Hodges, N° IV. of his *Select Views in India*. Its ancient name, by which it is still known among the Hindoos, is *Praeg*, or *Piyag*, and the people of the district are called *Praegi*, which bears a near resemblance to Prasij, the ancient appellation of the kingdom of which Palibothra was the capital; P. Tiessenthaler, *Bernouilli*, tom. i. p. 223. D'Anville, p. 56. Allahabad is such a noted seat of Hindoo devotion, that it is denominated *The King of Worshipped Places*; Aycen Akbery, vol. ii. p. 35. "The territory around it, to the extent of forty miles, is deemed holy ground. The Hindoos believe, that when a man dies in this place, whatever he wishes for he will obtain in his next regeneration. Although they teach that suicide in general will be punished with torments hereafter, yet they consider it as meritorious for a man to kill himself at Allahabad;" Aycen Akbery, iii. 256. P.

Tiessenthaler describes the various objects of veneration at Allahabad, which are still visited with great devotion by an immense number of pilgrims; Bernouilli, tom. i. 224. From all these circumstances, we may conclude it to be a place of great antiquity, and in the same situation with the Palibothra of antiquity.

MAJOR RENNELL has been induced to place Palibothra on the same site with Patna, chiefly by two considerations.—1. From having learned that on or near the site of Patna stood anciently a very large city named *Patelpoother* or *Patalipputra*, which nearly resembles the ancient name of Palibothra. Although there is not now a confluence of two rivers at Patna, he was informed that the junction of the Soane with the Ganges, now twenty-two miles above Patna, was formerly under the walls of that city. The rivers of India sometimes change their course in a singular manner, and he produces some remarkable instances of it. But even should it be allowed, that the accounts which the natives give of this variation in the course of the Soane were perfectly accurate, I question whether Arrian's description of the magnitude of Erranaboas be applicable to that river, certainly not so justly as to the Jumna.—2. He seems to have been influenced, in some degree, by Pliny's Itinerary, or Table of Distances from Taxila (the modern Attock) to the mouth of the Ganges; Nat. Hist. lib. vi. c. 17. But the distances in that Itinerary are marked so inaccurately, and in some instances are so palpably erroneous, that one cannot found upon them with much security. According to it, Palibothra is situated four hundred and twenty-five miles below the confluence of the Jumna and Ganges. The actual distance, however, between Allahabad and Patna, is not more than two hundred British miles. A disagreement so considerable cannot be accounted for, without suppos-

ing some extraordinary error in the Itinerary, or that the point of conflux of the Jumna with the Ganges has undergone a change. For the former of these suppositions there is no authority (as far as I know) from any manuscript, or for the latter from any tradition. Major Rennell has produced the reasons which led him to suppose the site of Palibothra to be the same with that of Patna; *Memoirs*, p. 49—54. Some of the objections which might be made to this supposition he has foreseen, and endeavoured to obviate; and after all that I have added to them, I shall not be surprised, if, in a geographical discussion, my readers are disposed to prefer his decision to mine.

NOTE XV. SECT. I. p. 36.

I DO not mention a short inroad into India by Antiochus the Great, about one hundred and ninety-seven years posterior to the invasion of his ancestor Seleucus. We know nothing more of this transaction, than that the Syrian monarch, after finishing the war he carried on against the two revolted provinces of Parthia and Bactria, entered India, and concluding a peace with Sophagasenus, a King of the country, received from him a number of elephants, and a sum of money; *Polyb. lib. x. p. 597, &c. lib. xi. p. 651. edit. Casaub. Justin. lib. xv. c. 4. Bayer's Hist. Regn. Græcor. Bactr. p. 69, &c.*

NOTE XVI. SECT. I. p. 38.

A FACT cursorily related by Strabo, and which has escaped the inquisitive industry of M. de Guignes, coincides remarkably with the narrative of the Chinese writers, and confirms it. The Greeks, he says, were

deprived of Bactria by tribes or hordes of Scythian Nomades, who came from the country beyond the Jaxartes, and are known by the names of Asij, Parsiani, Tachari, and Sacarauli; Strab. lib. xi. p. 779. A. The Nomades of the ancients were nations who, like the Tartars, subsisted entirely, or almost entirely, as shepherds, without agriculture.

NOTE XVII. SECT. I. p. 40.

As the distance of Arsinoe, the modern Suez, from the Nile, is considerably less than that between Berenice and Coptos, it was by this route that all the commodities imported into the Arabian Gulf might have been conveyed with most expedition and least expense into Egypt. But the navigation of the Arabian Gulf, which even in the present improved state of nautical science is slow and difficult, was in ancient times considered by the nations around it to be so extremely perilous, that it led them to give such names to several of its promontories, bays, and harbours, as convey a striking idea of the impression which the dread of this danger had made upon their imagination. The entry into the Gulf they called *Babelmandeb*, the gate or port of affliction. To a harbour not far distant, they gave the name of *Mete*, i. e. Death. A headland adjacent they called *Gardefan*, the Cape of Burial. Other denominations of similar import are mentioned by the author to whom I am indebted for this information. Bruce's Travels, vol. i. p. 442, &c. It is not surprising then, that the staple of Indian trade should have been transferred from the northern extremity of the Arabian Gulf to Berenice, as by this change a dangerous navigation was greatly shortened. This seems to have been the chief reason that induced Ptolemy to establish the port of communication with India at Berenice, as

there were other harbours on the Arabian Gulf which were considerably nearer than it to the Nile. At a later period, after the ruin of Coptos by the Emperor Dioclesian, we are informed by Abulfeda, *Descript. Egypt*, edit. Michaelis, p. 77. that Indian commodities were conveyed from the Red Sea to the Nile, by the shortest route, viz. from Cosseir, probably the Philoteras Portus of Ptolemy, to Cous, the Vicus Apollinis, a journey of four days. The same account of the distance was given by the natives to Dr Pococke. *Travels*, vol. i. p. 87. In consequence of this, Cous, from a small village, became the city in Upper Egypt next in magnitude to Fostat, or Old Cairo. In process of time, from causes which I cannot explain, the trade from the Red Sea by Cosseir removed to Kene, farther down the river than Cous. Abulf. p. 13. 77. D'Anville, *Egypte*, 196—200. In modern times, all the commodities of India, imported into Egypt, are either brought by sea from Gidda to Suez, and thence carried on camels to Cairo, or are conveyed by land-carriage by the caravan returning from the Pilgrimage to Mecca. Niebuhr *Voyage*, tom. i. p. 224. Volney, i. 188, &c. This, as far as I have been able to trace it, is a complete account of all the different routes by which the productions of the East have been conveyed to the Nile, from the first opening of that communication. It is singular that P. Sicard, *Mem. des Missions dans le Levant*, tom. ii. p. 157. and some other respectable writers, should suppose Cosseir to be the Berenice founded by Ptolemy, although Ptolemy has laid down its latitude at  $23^{\circ} 50'$ , and Strabo has described it as nearly under the same parallel with that of Syenéc, lib. ii. p. 195. D. In consequence of this mistake, Pliny's computation of the distance between Berenice and Coptos at two hundred and fifty-eight miles, has been deemed erroneous. Pococke, p. 87. But as Pliny not only mentions the total distance, but names the different stations in the

journey, and specifies the number of miles between each ; and as the Itinerary of Antonius coincides exactly with his account, D'Anville *Egypte*, p. 21. there is no reason to call in question the accuracy of it.

NOTE XVIII. SECT. I. p. 42.

MAJOR RENNELL is of opinion, " that under the Ptolemies, the Egyptians extended their navigation to the extreme point of the Indian continent, and even sailed up the Ganges to Palibothra," on the same site (according to him) with the modern Patna. *Introd.* p. xxxvi. But had it been usual to sail up the Ganges as high as Patna, the interior parts of India must have been better known to the ancients than they ever were, and they would not have continued to derive their information concerning them from Megasthenes alone. Strabo begins his description of India in a very remarkable manner. He requests his readers to peruse with indulgence the account which he gives of it, as it was a country very remote, and few persons had visited it ; and of these, many having seen only a small part of the country, related things either from hearsay, or, at the best, what they had hastily remarked while they passed through it in the course of military service, or on a journey. *Strabo*, lib. xv. p. 1005. B. He takes notice that few of the traders from the Arabian Gulf ever reached the Ganges. *Ibid.* 1006. C. He asserts, that the Ganges enters the sea by one mouth, *ibid.* 1011. C. ; an error into which he could not have fallen if the navigation of that river had been common in his time. He mentions indeed the sailing up the Ganges, *ibid.* 1010, but it is cursorily in a single sentence ; whereas, if such a considerable inland voyage of above four hundred miles, through a populous and rich country, had been



customary, or even if it had ever been performed by the Roman, or Greek, or Egyptian traders, it must have merited a particular description, and must have been mentioned by Pliny and other writers, as there was nothing similar to it in the practice of navigation among the ancients. It is observed by Arrian, (or whoever is the author of the *Periplus Maris Erythræi*), that previous to the discovery of a new route to India, which shall be mentioned afterwards, the commerce with that country was carried on in small vessels which sailed round every bay, p. 32. Ap. Huds. Geogr. Min. Vessels of such light construction, and which followed this mode of sailing, were ill fitted for a voyage so distant as that round Cape Comorin, and up the Bay of Bengal, to Patna. It is not improbable, that the merchants, whom Strabo mentions as having reached the Ganges, may have travelled thither by land, either from the countries towards the mouth of the Indus, or from some part of the Malabar coast, and that the navigation up the Ganges, of which he casually takes notice, was performed by the natives in vessels of the country. This opinion derives some confirmation from his remarks upon the bad structure of the vessels which frequented that part of the Indian Ocean. From his description of them, p. 1012. C. it is evident that they were vessels of the country.

## NOTE XIX. SECT. I. p. 44.

THE erroneous ideas of many intelligent writers of antiquity with respect to the Caspian Sea, though well known to every man of letters, are so remarkable, and afford such a striking example of the imperfection of their geographical knowledge, that a more full account of them may not only be acceptable to some of my

readers, but in endeavouring to trace the various routes by which the commodities of the East were conveyed to the nations of Europe, it becomes necessary to enter into some detail concerning their various sentiments with respect to this matter.—1. According to Strabo, the Caspian is a bay that communicates with the great Northern Ocean, from which it issues at first by a narrow strait, and then expands into a sea extending in breadth five hundred stadia, lib. xi. p. 773. A. With him Pomponius Mela agrees, and describes the strait by which the Caspian is connected with the ocean, as of considerable length, and so narrow that it had the appearance of a river, lib. iii. c. 5. edit. Pliny likewise gives a similar description of it; Nat. Hist. lib. vi. c. 13. In the age of Justinian, this opinion, concerning the communication of the Caspian Sea with the ocean, was still prevalent; Cosm. Indicopl. Topog. Christ. lib. ii. p. 138. C.—2. Some early writers, by a mistake still more singular, have supposed the Caspian Sea to be connected with the Euxine. Quintus Curtius, whose ignorance of geography is notorious, has adopted this error, lib. vii. c. 7. edit.—3. Arrian, though a much more judicious writer, and who, by residing for some time in the Roman province of Cappadocia, of which he was governor, might have obtained more accurate information, declares in one place the origin of the Caspian Sea to be still unknown; and it is doubtful whether it was connected with the Euxine, or with the great Eastern Ocean which surrounds India; lib. vii. c. 16. In another place he asserts, that there was a communication between the Caspian and the Eastern Ocean, lib. v. c. 26. These errors appear more extraordinary, as a just description had been given of the Caspian by Herodotus, near five hundred years before the age of Strabo. “The Caspian (says he) is a sea by itself unconnected with any other. Its length is as much as a vessel with oars can sail in

fifteen days; its greatest breadth as much as it can sail in eight days;" lib. i. c. 203. Aristotle describes it in the same manner, and with his usual precision contends that it ought to be called a great lake, not a sea; Meteorolog. lib. ii. Diodorus Siculus concurs with them in opinion, vol. ii. lib. xviii. p. 261. None of those authors determine whether the greatest length of the Caspian was from north to south, or from east to west. In the ancient maps which illustrate the geography of Ptolemy, it is delineated, as if its greatest length extended from east to west. In modern times the first information concerning the true form of the Caspian which the people of Europe received, was given by Anthony Jenkinson, an English merchant, who with a caravan from Russia travelled along a considerable part of its coast in the year 1558; Hakluyt Collect. vol. i. p. 334. The accuracy of Jenkinson's description was confirmed by an actual survey of that sea made by order of Peter the Great, A. D. 1718; and it is now ascertained, not only that the Caspian is unconnected with any other sea, but that its length from north to south is considerably more than its greatest breadth from east to west. The length of the Caspian from north to south is about six hundred and eighty miles, and in no part more than two hundred and sixty miles in breadth from east to west. Cox's Travels, vol. ii. p. 257. The proportional difference of its length and breadth accords nearly with that mentioned by Herodotus. From this detail, however, we learn how the ill founded ideas concerning it, which were generally adopted, gave rise to various wild schemes of conveying Indian commodities to Europe by means of its supposed communication with the Euxine Sea, or with the Northern Ocean. It is an additional proof of the attention of Alexander the Great to every thing conducive to the improvement of commerce, that a short time before his death he gave direc-

tions to fit out a squadron in the Caspian, in order to survey that sea, and to discover whether it was connected either with the Euxine or Indian Ocean. Arrian, lib. vii. c. 16.

NOTE XX. SECT. II. p. 54.

FROM this curious detail we learn, how imperfect ancient navigation was, even in its most improved state. The voyage from Berenice to Ocelis could not have taken thirty days, if any other course had been held than that of servilely following the windings of the coast. The voyage from Ocelis to Musiris would be (according to Major Rennell) fifteen days' run for an European ship in the modern style of navigation, being about seven-teen hundred and fifty marine miles, on a straight course; Introd. p. xxxvii. It is remarkable, that though the *Periplus Maris Erythræi* was written after the voyage of Hippalus, the chief object of the author of it is to describe the ancient course along the coasts of Arabia and Persia, to the mouth of the Indus, and from thence down the western shore of the continent to Musiris. I can account for this only by supposing, that from the unwillingness of mankind to abandon old habits, the greater part of the traders from Berenice still continued to follow that route to which they were accustomed. To go from Alexandria to Musiris, required (according to Pliny) ninety-four days. In the year 1788, the *Boddam*, a ship belonging to the English East India Company, of a thousand tons burden, took only fourteen days more to complete her voyage from Portsmouth to Madras. Such are the improvements which have been made in navigation.

## NOTE XXI. SECT. II. p. 55.

IT was the opinion of Plato, that in a well regulated commonwealth the citizens should not engage in commerce, nor the state aim at obtaining maritime power. Commerce, he contends, would corrupt the purity of their morals, and by entering into the sea-service, they would be accustomed to find pretexts for justifying conduct so inconsistent with what was manly and becoming, as would gradually relax the strictness of military discipline. It had been better for the Athenians, he asserts, to have continued to send annually the sons of seven of their principal citizens to be devoured by the Minotaur, than to have changed their ancient manners, and to have become a maritime power. In that perfect republic of which he delineates the form, he ordains that the capital should be situated at least ten miles from the sea; *De Legibus*, lib. iv. ab initio. These ideas of Plato were adopted by other philosophers. Aristotle enters into a formal discussion of the question, Whether a state rightly constituted should be commercial or not? and though abundantly disposed to espouse sentiments opposite to those of Plato, he does not venture to decide explicitly with respect to it; *De Repub.* lib. vii. c. 6. In ages when such opinions prevail, little information concerning commerce can be expected.

## NOTE XXII. SECT. II. p. 59.

PLINY, lib. ix. c. 35. *Principium ergo culmenque omnium rerum prætij Margaritæ tenent.* In lib. xxxvii. c. 4. he affirms, *Maximum in rebus humanis prætium, non solum inter gemmas, habet Adamas.* These two passages stand in such direct contradiction to one ano-

ther, that it is impossible to reconcile them, or to determine which is the most conformable to truth. I have adhered to the former, because we have many instances of the exorbitant price of pearls, but none, as far as I know, of diamonds having been purchased at a rate so high. In this opinion I am confirmed by a passage in Pliny, lib. xix. c. 1.: having mentioned the exorbitant price of *Asbestos*, he says, “æquat prætia excellentium Margaritarum;” which implies, that he considered pearls to be of higher price than any other commodity.

NOTE XXIII. SECT. II. p. 59.

PLINY has devoted two entire books of his Natural History, lib. xii. and xiii. to the enumeration and description of the spices, aromatics, ointments, and perfumes, the use of which luxury had introduced among his countrymen. As many of these were the productions of India, or of the countries beyond it, and as the trade with the East was carried on to a great extent in the age of Pliny, we may form some idea of the immense demand for them, from the high price at which they continued to be sold in Rome. To compare the prices of the same commodities in ancient Rome, with those now paid in our own country, is not a gratification of curiosity merely, but affords a standard by which we may estimate the different degree of success with which the Indian trade has been conducted in ancient and modern times. Many remarkable passages in ancient authors, concerning the extravagant price of precious stones and pearls among the Romans, as well as the general use of them by persons of all ranks, are collected by Meursius de Lux. Romanorum, cap. 5.; and by Stanislaus Robierzyckius, in his treatise on the same subject, lib. ii.

c. 1. The English reader will receive sufficient information from Dr Arbuthnot, in his valuable Tables of ancient coins, weights, and measures, p. 172, &c.

NOTE XXIV. SECT. II. p. 61.

M. MAHUDEL, in a memoir read in the Academy of Inscriptions and Belles Lettres in the year 1719, has collected the various opinions of the ancients concerning the nature and origin of silk, which tend all to prove their ignorance with regard to it. Since the publication of M. Mahudel's memoir, P. du Halde has described a species of silk, of which I believe he communicated the first notice to the moderns. "This is produced by small insects nearly resembling snails. They do not form cocoons either round or oval like the silk-worm, but spin very long threads, which fasten themselves to trees and bushes as they are driven by the wind. These are gathered and wrought into silk stuffs, coarser than those produced by domestic silk-worms. The insects which produce this coarse silk are wild." Description de l'Empire de la Chine, tom. ii. fol. p. 207. This nearly resembles Virgil's description,

Velleraque ut foliis depectant tenuia Seres.

GEORG. II. 121.

An attentive reader of Virgil will find, that, besides all the other qualities of a great descriptive poet, he possessed an extensive knowledge of natural history. The nature and productions of the wild silk-worms are illustrated at greater length in the large collection of Memoires concernant l'Histoire, les Sciences, les Arts, &c. des Chinois, tom. ii. p. 575, &c.; and by Pere de Mailla, in his voluminous History of China, tom. xiii.

p. 434. It is a singular circumstance in the history of silk, that on account of its being an excretion of a worm, the Mahomedans consider it as an unclean dress; and it has been decided, with the unanimous assent of all the doctors, that a person wearing a garment made entirely of silk, cannot lawfully offer up the daily prayers enjoined by the Koran. Herbal. Bibl. Orient. artic. *Harir*.

NOTE XXV. SECT. II. p. 62.

IF the use of the cotton manufactures of India had been common among the Romans, the various kinds of them would have been enumerated in the law de Publicanis et Vectigalibus, in the same manner as the different kinds of spices and precious stones. Such a specification would have been equally necessary for the direction both of the merchant and of the tax-gatherer.

NOTE XXVI. SECT. II. p. 62.

THIS part of Arrian's Periplus has been examined with great accuracy and learning by Lieutenant Wilford; and from his investigation it is evident, that the Plithana of Arrian is the modern Pultanah, on the southern banks of the river Godavery, two hundred and seventeen British miles south from Baroach; that the position of Tagara is the same with that of the modern Dowlatabad, and the high grounds across which the goods were conveyed to Baroach, are the Ballagaut mountains. The bearings and distances of these different places, as specified by Arrian, afford an additional proof (were that necessary) of the exact information which he had received concerning this district of India; Asiatic Researches, vol. i, p. 369, &c.



## NOTE XXVII. SECT. II. p. 70.

STRABO acknowledges his neglect of the improvements in geography which Hipparchus had deduced from astronomical observations, and justifies it by one of those logical subtleties which the ancients were apt to introduce into all their writings. "A geographer," says he, (*i. e.* a describer of the earth), "is to pay no attention to what is out of the earth; nor will men, engaged in conducting the affairs of that part of the earth which is inhabited, deem the distinctions and divisions of Hipparchus worthy of notice." Lib. ii. 194. C.

## NOTE XXVIII. SECT. II. p. 70.

WHAT an high opinion the ancients had of Ptolemy we learn from Agathemerus, who flourished not long after him. "Ptolemy," says he, "who reduced geography into a regular system, treats of every thing relating to it, not carelessly, or merely according to ideas of his own, but attending to what had been delivered by more ancient authors, he adopted from them whatever he found consonant to truth." Epitome Geogr. lib. i. c. 6. edit. Hudson. From the same admiration of his work, Agathodæmon, an artist of Alexandria, prepared a series of maps for the illustration of it, in which the position of all the places mentioned by Ptolemy, with their longitude and latitude, is laid down precisely according to his ideas. Fabric. Biblioth. Græc. iii. 412.

## NOTE XXIX. SECT. II. p. 71.

As these public Surveys and Itineraries furnished the ancient geographers with the best information concerning the position and distances of many places, it may be proper to point out the manner in which they were completed by the Romans. The idea of a general survey of the whole empire was first formed by Julius Cæsar, and having been begun by him under authority of a decree of the senate, was finished by Augustus. As Rome was still far inferior to Greece in science, the execution of this great undertaking was committed to three Greeks, men of great abilities, and skilled in every part of philosophy. The survey of the eastern division of the empire was finished by Zenodorus in fourteen years five months and nine days. That of the northern division was finished by Theodorus in twenty years eight months and ten days. The southern division was finished in twenty-five years one month and ten days. *Æthici Cosmographia apud Geographos*, editos à Hen. Stephano, 1577, p. 107. This undertaking was worthy of those illustrious persons who planned it, and suited to the magnificence of a great people. Besides this general survey, every new war produced a new delineation and measurement of the countries which were the seat of it. We may conclude from Vegetius, *Instit. Rei Militaris*, lib. iii. c. 6. that every governor of a Roman province was furnished with a description of it; in which were specified the distance of places in miles, the nature of the roads, the bye-roads, the short cuts, the mountains, the rivers, &c.; all these, says he, were not only described in words, but were delineated in a map, that, in deliberating concerning his military movements, the eyes of a general might aid the decisions of his mind.

## NOTE XXX. SECT. II. p. 72.

THE consequence of this mistake is remarkable. Ptolemy, lib. vii. c. i. computes the latitude of Barygaza, or Baroach, to be  $17^{\circ} 20'$ ; and that of Cory, or Cape Comorin, to be  $13^{\circ} 20'$ , which is the difference of four degrees precisely; whereas the real difference between these two places is nearly fourteen degrees.

## NOTE XXXI. SECT. II. p. 72.

RAMUSIO, the publisher of the most ancient and perhaps the most valuable Collection of Voyages, is the first person, as far as I know, who takes notice of this strange error of Ptolemy; *Viaggi*, vol. i. p. 181. He justly observes, that the author of the circumnavigation of the Erythræan Sea had been more accurate, and had described the peninsula of India as extending from north to south; *Peripl.* p. 24. 29.

## NOTE XXXII. SECT. II. p. 75.

THIS error of Ptolemy justly merits the name of *enormous*, which I have given to it; and it will appear more surprising when we recollect, that he must have been acquainted, not only with what Herodotus relates concerning the circumnavigation of Africa by order of one of the Egyptian Kings, lib. iv. c. 4. but with the opinion of Eratosthenes, who held that the great extent of the Atlantic Ocean was the only thing which prevented a communication between Europe and India by sea; *Strab. Geogr.* lib. i. p. 113. A. This error, however, must not be imputed wholly to Ptolemy. Hipparchus,

whom we may consider as his guide, had taught that the earth is not surrounded by one continuous ocean, but that it is separated by different isthmuses, which divide it into several large basins; Strabo, lib. i. p. 11. B. Ptolemy, having adopted this opinion, was induced to maintain that an unknown country extended from Cattigara to Prassum on the south-east coast of Africa; Geogr. lib. vii. c. 3. and 5. As Ptolemy's system of geography was universally received, this error spread along with it. In conformity to it, the Arabian geographer Edrissi, who wrote in the twelfth century, taught that a continued tract of land stretched eastward from Sofala on the African coast, until it united with some part of the Indian continent; D'Anville, *Antiq.* p. 187. Annexed to the first volume of *Gesta Dei per Francos*, there is an ancient and very rude map of the habitable globe, delineated according to this idea of Ptolemy. M. Gosselin, in his map entitled *Ptolemæi Systema Geographicum*, has exhibited this imaginary tract of land which Ptolemy supposes to have connected Africa with Asia; *Geographie des Grecs analysée*.

NOTE XXXIII. SECT. II. p. 76.

IN this part of the Disquisition, as well as in the map prepared for illustrating it, the geographical ideas of M. D'Anville, to which Major Rennell has given the sanction of his approbation, *Introd.* p. xxxix. have been generally adopted. But M. Gosselin has lately published "The Geography of the Greeks analyzed; or, the Systems of Eratosthenes, Strabo, and Ptolemy, compared with each other, and with the Knowledge which the Moderns have acquired;" a learned and ingenious work, in which he differs from his countryman with respect to many of his determinations. According to M. Gosselin, the Mag-

num Promontorium, which M. D'Anville concludes to be Cape Romania, at the southern extremity of the peninsula of Malacca, is the point of Bragu, at the mouth of the great river Ava; near to which he places Zaba, supposed by M. D'Anville, and by Barros, Decad. ii. liv. vi. c. 1. to be situated on the strait of Sincapura or Malacca. The Magnus Sinus of Ptolemy he holds to be the same with the Gulf of Martaban, not the Gulf of Siam, according to M. D'Anville's decision. The position of Cattigara, as he endeavours to prove, corresponds to that of Mergui, a considerable port on the west coast of the kingdom of Siam; and that Thinæ, or Sinæ Metropolis, which M. D'Anville removes as far as Sin-hoa, in the kingdom of Cochin China, is situated on the same river with Mergui, and now bears the name of Tanaserim. The Ibadij Insula of Ptolemy, which M. D'Anville determines to be Sumatra, he contends is one of that cluster of small isles which lie off this part of the coast of Siam; p. 137—148. According to M. Gosselin's system, the ancients never sailed through the Streights of Malacca, had no knowledge of the island of Sumatra, and were altogether unacquainted with the Eastern Ocean. If to any of my readers these opinions appear to be well founded, the navigation and commerce of the ancients in India must be circumscribed within limits still more confined than those which I have allotted to them. From the Ayeen Akbery, vol. ii. p. 7. we learn that Cheen was an ancient name of the kingdom of Pegu: As that country borders upon Ava, where M. Gosselin places the Great Promontory, this near resemblance of names may appear, perhaps, to confirm his opinion that Sinæ Metropolis was situated on this coast, and not so far east as M. D'Anville has placed it.

As Ptolemy's geography of this eastern division of Asia is more erroneous, obscure, and contradictory, than

any other part of his work, and as all the manuscripts of it, both Greek and Latin, are remarkably incorrect in the two chapters which contain the description of the countries beyond the Ganges, M. D'Anville, in his Memoir concerning the limits of the world known to the ancients beyond the Ganges, has admitted into it a larger portion of conjecture than we find in the other researches of that cautious geographer. He likewise builds more than usual upon the resemblances between the ancient and modern names of places, though at all times he discovers a propensity, perhaps too great, to trace these, and to rest upon them. These resemblances are often, indeed, very striking, and have led him to many happy discoveries. But in perusing his works, it is impossible, I should think, not to perceive that some which he mentions are far-fetched and fanciful. Whenever I follow him, I have adopted only such conclusions as seem to be established with his accustomed accuracy.

NOTE XXXIV. SECT. II. p. 86.

THE Author of the Circumnavigation of the Erythræan Sea has marked the distances of many of the places which he mentions with such accuracy, as renders it a nearer approach than what is to be found in any writer of antiquity, to a complete survey of the coast from Myos-Hormus, on the west side of the Arabian Gulf, along the shores of Ethiopia, Arabia, Persia, and Caramania, to the mouth of the Indus, and thence down the west coast of the Indian Peninsula to Musiris and Barace. This adds to the value of this short treatise, which, in every other respect, possesses great merit. It may be considered as a remarkable proof of the extent and accuracy of this author's intelligence concerning India, that he is the only ancient writer who appears in any degree to have

been acquainted with the great division of that country, which still subsists, viz. Indostan Proper, comprehending the northern provinces of the Peninsula, and the Deccan, comprehending the southern provinces. "From Barygaza (says he) the continent stretches to the south; hence that district is called Dachinabades, for, in the language of the country, the south is called Dachanos;" *Peripl.* p. 29. As the Greeks and Romans, when they adopt any foreign name, always gave it a termination peculiar to their own language, which the grammatical structure of both tongues rendered in some degree necessary, it is evident that Dachanos is the same with Deccan, which word has still the same signification, and is still the name of that division of the Peninsula. The northern limit of the Deccan at present is the river Narbudda, where our Author likewise fixes it. *Peripl.* *ibid.*

NOTE XXXV. SECT. II. p. 89.

THOUGH, in deducing the latitudes of places from observations of the sun or stars, the ancient astronomers neglected several corrections which ought to have been applied, their results were sometimes exact to a few minutes, but at other times they appear to have been erroneous to the extent of two or even three degrees, and may perhaps be reckoned, one with another, to have come within half a degree of the truth. This part of the ancient geography would therefore have been tolerably accurate, if there had been a sufficient number of such determinations. These, however, were far from being numerous, and appear to have been confined to some of the more remarkable places in the countries which surround the Mediterranean Sea.

WHEN, from want of more accurate observations, the latitude was inferred from the length of the longest or shortest day, no great degree of precision was, in any case, to be expected, and least of all in the vicinity of the Equator. An error of a quarter of an hour, which, without some mode of measuring time more accurate than ancient observers could employ, was not easily avoided, might produce, in such situations, an error of four degrees in the determination of the latitude.

WITH respect to places in the torrid zone, there was another resource for determining the latitude. This was by observing the time of the year when the sun was vertical to any place, or when bodies that stood perpendicular to the horizon had no shadow at noon-day; the sun's distance from the Equator at that time, which was known from the principles of astronomy, was equal to the latitude of the place. We have instances of the application of this method in the determination of the parallels of Syene and Meroe. The accuracy which this method would admit of, seems to be limited to about half a degree, and this only on the supposition that the observer was stationary; for if he was travelling from one place to another, and had not an opportunity of correcting the observation of one day by that of the day following, he was likely to deviate much more considerably from the truth.

WITH respect to the longitude of places, as eclipses of the moon are not frequent, and could seldom be of use for determining it, and only when there were astronomers to observe them with accuracy, they may be left out of the account altogether when we are examining the geography of remote countries. The differences of the meridians of places were therefore anciently ascertained entirely by the bearings and distances of one place from



another, and of consequence all the errors of reckonings, surveys, and itineraries, fell chiefly upon the longitude, in the same manner as happens at present in a ship which has no method of determining its longitude, but by comparing the dead-reckoning with the observations of the latitude; though with this difference, that the errors to which the most skilful of the ancient navigators was liable, were far greater than what the most ignorant shipmaster of modern times, provided with a compass, can well commit. The length of the Mediterranean, measured, in degrees of longitude, from the Pillars of Hercules to the Bay of Issus, is less than forty degrees; but in Ptolemy's maps it is more than sixty, and, in general, its longitudes, counting from the meridian of Alexandria, especially toward the East, are erroneous nearly in the same proportion. It appears, indeed, that in remote seas, the coasts were often delineated from an imperfect account of the distances sailed, without the least knowledge of the bearings or direction of the ship's course. Ptolemy, it is true, used to make an allowance of about one-third for the winding of a ship's course. Geogr. lib. i. c. 12.; but it is plain, that the application of this general rule could seldom lead to an accurate conclusion. Of this there is a striking instance in the form which that geographer has given to the Peninsula of India. From the Barygazenum Promontorium to the place marked *Locus unde solvunt in Chrysen navigantes*, that is, from Surat on the Malabar Coast, to about Narsapour on the Coromandel Coast, the distance measured along the sea-shore is nearly the same with what it is in reality; that is, about five hundred and twenty leagues. But the mistake in the direction is astonishing, for the Malabar and Coromandel Coast, instead of stretching to the south, and intersecting one another at Cape Comorin in a very acute angle, are extended by Ptolemy almost in the same straight line from west to east, declining a

little to the south. This coast is, at the same time, marked with several bays and promontories, nearly resembling, in their position, those which actually exist on it. All these circumstances compared together, point out very clearly what were the materials from which the ancient map of India was composed. The ships which had visited the coast of that country, had kept an account of the time which they took to sail from one place to another, and had marked, as they stood along shore, on what hand the land lay, when they shaped their course across a bay or doubled a promontory. This imperfect journal, with an inaccurate account, perhaps, of the latitude of one or two places, was probably all the information concerning the coast of India which Ptolemy was able to procure. That he should have been able to procure no better information from merchants who sailed with no particular view of exploring the coast, will not appear wonderful, if we consider that even the celebrated Periplus of Hanno would not enable a geographer to lay down the coast of Africa with more precision than Ptolemy has delineated that of India.

NOTE XXXVI. SECT. II. p. 98.

THE introduction of the silk-worm into Europe, and the effects which this produced, came under the view of Mr Gibbon, in writing the History of the Emperor Justinian, and though it was an incident of subordinate importance only, amidst the multiplicity of great transactions which must have occupied his attention, he has examined this event with an accuracy, and related it with a precision, which would have done honour to an author who had no higher object of research; vol. iv. p. 71, &c. Nor is it here only that I am called upon to ascribe to him this merit: The subject of my inquiries

has led me several times upon ground which he had gone over, and I have uniformly received information from the industry and discernment with which he has surveyed it.

## NOTE XXXVII. SECT. III. p. 102.

THIS voyage, together with the observations of Abu Zeid al Hasan of Siraf, was published by M. Renaudot, A. D. 1718, under the title of "Anciennes Relations des Indes, et de la Chine, de deux Voyageurs Mahometans, qui y allerent dans le Neuvieme Siecle; traduites de Arabe, avec des remarques sur les principaux endroits de ces Relations." As M. Renaudot, in his remarks, represents the literature and police of the Chinese in colours very different from those of the splendid descriptions which a blind admiration had prompted the Jesuits to publish, two zealous missionaries have called in question the authenticity of these relations, and have asserted that the authors of them had never been in China. P. Premare Lettr. edificantes et curieuses, tom. xix. p. 420. &c. P. Parennin, *ibid.* tom. xxi. p. 158, &c. Some doubts concerning their authenticity were entertained likewise by several learned men in England, on account of M. Renaudot's having given no notice of the manuscript which he translated, but that he found it in the library of M. le Comte de Seignelay. As no person had seen the manuscript since that time, the doubts increased, and M. Renaudot was charged with the crime of imposing upon the public. But the Colbert Manuscripts having been deposited in the King's Library, as (fortunately for literature) most private collections are in France, M. de Guignes, after a long search, discovered the identical manuscript to which M. Renaudot refers. It appears to have been written in the 12th century; *Journal des*

Scavans, Dec. 1764, p. 315, &c. As I had not the French edition of M. Renaudot's book, my references are made to the English translation. The relation of the two Arabian travellers is confirmed in many points by their countryman Massoudi, who published his treatise on universal history, to which he gives the fantastical title of "Meadows of Gold, and Mines of Jewels," a hundred and sixty years after their time. From him, likewise, we receive such an account of India in the tenth century, as renders it evident that the Arabians had then acquired an extensive knowledge of that country. According to his description, the Peninsula of India was divided into four kingdoms. The first was composed of the provinces situated on the Indus, and the rivers which fall into it; the capital of which was Moultan. The capital of the second kingdom was Canoge, which, from the ruins of it still remaining, appears to have been a very large city; Rennell's Memoirs, p. 54. In order to give an idea of its populousness, the Indian historians assert, that it contained thirty thousand shops in which betelnut was sold, and sixty thousand sets of musicians and singers, who paid a tax to government; Ferishta, translated by Dow, vol. i. p. 32. The third kingdom was Cachemire. Massoudi, as far as I know, is the first author who mentions this paradise of India, of which he gives a short but just description. The fourth is the kingdom of Guzerate, which he represents as the greatest and most powerful; and he concurs with the two Arabian travellers, in giving the sovereigns of it the appellation of Belhara. What Massoudi relates concerning India is more worthy of notice, as he himself had visited that country; Notices et Extraits des Manuscrits de la Bibliotheque du Roi, tom. i. p. 9, 10. Massoudi confirms what the two Arabian travellers relate, concerning the extraordinary progress of the Indians in astronomical science. According to his

account, a temple was built during the reign of Brahmin, the first monarch of India, with twelve towers, representing the twelve signs of the zodiac; and in which was delineated a view of all the stars as they appear in the heavens. In the same reign was composed the famous Sind-Hind, which seems to be the standard treatise of Indian astronomy; Notices, &c. tom. i. p. 7. Another Arabian author, who wrote about the middle of the fourteenth century, divides India into three parts. The northern, comprehending all the provinces on the Indus: The middle, extending from Guzerate to the Ganges: The southern, which he denominates Comar, from Cape Comorin; Notices, &c. tom. ii. p. 46.

NOTE XXXVIII. SECT. III. p. 103.

THE naval skill of the Chinese seems not to have been superior to that of the Greeks, the Romans, or Arabians. The course which they held from Canton to Siraf, near the mouth of the Persian Gulf, is described by their own authors. They kept as near as possible to the shore until they reached the island of Ceylon, and then doubling Cape Comorin, they sailed along the west side of the Peninsula, as far as the mouth of the Indus, and thence steered along the coast to the place of their destination; Mem. de Literat. tom. xxxii. p. 367. Some authors have contended, that both the Arabians and Chinese were well acquainted with the mariner's compass, and the use of it in navigation; but it is remarkable that in the Arabic, Turkish, and Persian languages, there is no original name for the compass. They commonly call it *Bosola*, the Italian name, which shews that the knowledge of this useful instrument was communicated to them by the Europeans. There is not one single observation, of ancient date, made by the Arabians

on the variation of the needle, or any instruction deduced from it, for the assistance of navigators. Sir John Chardin, one of the most learned and best informed travellers who has visited the East, having been consulted upon this point, returns for answer, " I boldly assert, that the Asiatics are beholden to us for this wonderful instrument, which they had from Europe a long time before the Portuguese conquests. For, first, their compasses are exactly like ours, and they buy them of Europeans as much as they can, scarce daring to meddle with their needles themselves. Secondly, it is certain that the old navigators only coasted it along, which I impute to their want of this instrument to guide and instruct them in the middle of the ocean. We cannot pretend to say that they were afraid of venturing far from home, for the Arabians, the first navigators in the world in my opinion, at least for the eastern seas, have, time out of mind, sailed from the bottom of the Red Sea, all along the coast of Africa; and the Chinese have always traded with Java and Sumatra, which is a very considerable voyage. So many islands uninhabited and yet productive, so many lands unknown to the people I speak of, are a proof that the old navigators had not the art of sailing on the main sea. I have nothing but argument to offer touching this matter, having never met with any person in Persia or the Indies to inform me when the compass was first known among them, though I made inquiry of the most learned men in both countries. I have sailed from the Indies to Persia in Indian ships, when no European has been on board but myself. The pilots were all Indians, and they used the fore-staff and quadrant for their observations. These instruments they have from us, and made by our artists, and they do not in the least vary from ours, except that the characters are Arabic. The Arabians are the most skilful navigators of all the Asiatics or Africans; but neither

they nor the Indians make use of charts, and they do not much want them: some they have, but they are copied from ours, for they are altogether ignorant of perspective;" Inquiry when the Mahomedans first entered China, p. 141, &c. When M. Niebuhr was at Cairo, he found a magnetic needle in the possession of a Mahomedan, which served to point out the Kaaba, and he gave it the name of *El Magnatis*, a clear proof of its European origin; Voyage en Arabie, tom. ii. p. 169.

NOTE XXXIX. SECT. III. p. 104.

SOME learned men, Cardan, Scaliger, &c. have imagined that the Vasa Murrhina, particularly described by Pliny, Nat. Hist. lib. xxxvii. and occasionally mentioned by several ancient authors both Greek and Roman, were the true porcelain of China. M. l'Abbé Le Bland and M. Larcher have examined this opinion, with full as much industry and erudition as the subject merited, in two Dissertations published in Mem. de Literat. tom. xliii. From them it is evident that the Vasa Murrhina were formed of a transparent stone dug out of the earth in some of the eastern provinces of Asia. These were imitated in vessels of coloured glass. As both were beautiful and rare, they were sold at a very high price to the luxurious citizens of Rome.

NOTE XL. SECT. III. p. 106.

THE progress of Christianity, and of Mahomedanism, both in China and India, is attested by such evidence as leaves no doubt with respect to it. This evidence is collected by Assemanus, Biblioth. Orient. vol. iv. p. 437, &c. 521, &c.; and by M. Renaudot, in two Dissertations

annexed to *Anciennes Relations*; and by M. de la Croze, *Histoire de Christianisme des Indes*. In our own age, however, we know that the number of proselytes to either of these religions is extremely small, especially in India. A Gentoo considers all the distinctions and privileges of his cast, as belonging to him by an exclusive and incommunicable right. To convert, or to be converted, are ideas equally repugnant to the principles most deeply rooted in his mind; nor can either the Catholic or Protestant missionaries in India boast of having overcome these prejudices, except among a few in the lowest casts, or of such as have lost their cast altogether. This last circumstance is a great obstacle to the progress of Christianity in India. As Europeans eat the flesh of that animal which the Hindoos deem sacred, and drink intoxicating liquors, in which practices they are imitated by the converts to Christianity, this sinks them to a level with the Pariars, the most contemptible and odious race of men. Some Catholic missionaries were so sensible of this, that they affected to imitate the dress and manner of living of Brahmins, and refused to associate with the Pariars, or to admit them to the participation of the sacraments. But this was condemned by the apostolic legate Tournon, as inconsistent with the spirit and precepts of the Christian religion; *Voyage aux Indes Orientales*, par M. Sonnerat, tom. i. p. 58. note. Notwithstanding the labours of missionaries for upwards of two hundred years, (says a late ingenious writer), and the establishments of different Christian nations, who support and protect them, out of perhaps one hundred millions of Hindoos, there are not twelve thousand Christians, and those almost entirely *Chancalas*, or outcasts. Sketches relating to the History, Religion, Learning, and Manners of the Hindoos, p. 48. The number of Mahomedans, or Moors, now in Indostan is supposed to be near ten millions; but they are not the



original inhabitants of the country, but the descendants of adventurers who have been pouring in from Tartary, Persia, and Arabia, ever since the invasion of Mahmoud of Gazna, A. D. 1002, the first Mahomedan conqueror of India. Orme, *Hist. of Military Transact. in Indostan*, vol. i. p. 24. Herbelot, *Biblioth. Orient. artic. Gaznaviah*. As the manners of the Indians in ancient times seem to have been, in every respect, the same with those of the present age, it is probable that the Christians and Mahomedans, said to be so numerous in India and China, were chiefly foreigners, allured thither by a lucrative commerce, or their descendants. The number of Mahomedans in China has been considerably increased by a practice, common among them, of buying children in years of famine, whom they educate in the Mahomedan religion. *Hist. Gener. des Voyages*, tom. vi. p. 357.

## NOTE XLI. SECT. III. p. 110.

FROM the Chronicle of Andrew Dandolo, Doge of Venice, who was elevated to that high station at a time when his countrymen had established a regular trade with Alexandria, and imported from it all the productions of the East, it was natural to expect some information concerning their early trade with that country; but, except an idle tale concerning some Venetian ships which had sailed to Alexandria about the year 828, contrary to a decree of the state, and which stole thence the body of St Mark, (*Murat. Script. Rer. Ital. vol. xii. lib. 8. c. 2. p. 170.*), I find no other hint concerning the communication between the two countries. On the contrary, circumstances occur which shew that the resort of Europeans to Egypt had ceased, almost entirely, for some time. Prior to the seventh and eighth centuries,

the greater part of the public deeds in Italy and in other countries of Europe, were written upon paper fabricated of the Egyptian papyrus; but after that period, as Europeans seldom ventured to trade in Alexandria, almost all charters and other deeds are written upon parchment. Murat. Antiq. Ital. Medii Ævi, vol. iii. p. 832. I have been induced, both in the text and in this note, to state these particulars concerning the interruption of trade between the Christians and Mahomedans so fully, in order to correct an error into which several modern authors have fallen, by supposing, that soon after the first conquests of the Caliphs, the trade with India returned into its ancient channels, and the merchants of Europe resorted with the same freedom as formerly to the ports of Egypt and Syria.

NOTE XLII. SECT. III. p. 115.

It is proper to remark (says Mr Stewart) that the Indians have an admirable method of rendering their religion lucrative, it being usual for the Faquirs to carry with them, in their pilgrimages from the sea-coasts to the interior parts, pearls, corals, spices, and other precious articles of small bulk, which they exchange, on their return, for gold dust, musk, and other things of a similar nature, concealing them easily in their hair, and in the cloths round their middle, carrying on, in proportion to their numbers, no inconsiderable traffic by these means. Account of the kingdom of Thibet, Philos. Transact. vol. lxxvii. part ii. p. 483.

## NOTE XLIII. SECT. III. p. 123.

CAFFA is the most commodious station for trade in the Black Sea. While in the hands of the Genoese, who kept possession of it above two centuries, they rendered it the seat of an extensive and flourishing commerce. Even under all the disadvantages of its subjection, at present, to the Turkish government, it continues to be a place of considerable trade. Sir John Chardin, who visited it A. D. 1672, relates, that during his residence of forty days there, above four hundred ships arrived at Caffa, or sailed from it; Voyages, i. 48. He observed there several remains of Genoese magnificence. The number of its inhabitants, according to M. Peysonel, amounts still to eighty thousand. Commerce de la Mer Noire, tom. i. p. 15. He describes its trade as very great.

## NOTE XLIV. SECT. III. p. 124.

THE rapacity and insolence of the Genoese settled in Constantinople, are painted by Nicephorus Gregoras, an eye-witness of their conduct, in very striking colours. "They," says he, "now, *i. e.* about the year 1340, dreamed that they had acquired the dominion of the sea, and claimed an exclusive right to the trade of the Euxine, prohibiting the Greeks to sail to the Mæotis, the Chersonesus, or any part of the coast beyond the mouth of the Danube, without a license from them. This exclusion they extended likewise to the Venetians, and their arrogance proceeded so far as to form a scheme of imposing a toll upon every vessel passing through the Bosphorus;" Lib. xviii. c. 2. § 1.

## NOTE XLV. SECT. III. p. 125.

A PERMISSION from the Pope was deemed so necessary to authorize a commercial intercourse with infidels, that long after this period, in the year 1454, Nicholas V. in his famous bull in favour of Prince Henry of Portugal, among other privileges, grants him a license to trade with Mahomedans, and refers to similar concessions from Pope Martin V. and Eugenius, to the kings of Portugal. Leibnitz, *Codex Jur. Gent. Diplom. Pars I.* p. 489.

## NOTE XLVI. SECT. III. p. 127.

NEITHER Jovius, the professed panegyrist of the Medici, nor Jo. M. Brutus, their detractor, though both mention the exorbitant wealth of the family, explain the nature of the trade by which it was acquired. Even Machiavel, whose genius delighted in the investigation of every circumstance which contributed to aggrandize or depress nations, seems not to have viewed the commerce of his country as a subject that merited any elucidation. Denina, who has entitled the first chapter of his eighteenth book, "The Origin of the Medici, and the Commencement of their Power and Grandeur," furnishes little information with regard to the trade carried on by them. This silence of so many authors is a proof that historians had not yet begun to view commerce as an object of such importance in the political state of nations, as to enter into any detail concerning its nature and effects. From the references of different writers to Scipio Ammirato, *Istorie Fiorentine*; to Pagnini, *Della Decima ed altri gravezze della Mercatura di Fiorentini*, and to Balducci, *Practica della Mercatura*, I should imagine that something more satisfactory might be learned

concerning the trade both of the republic and the family of Medici; but I could not find any of these books either in Edinburgh or in London.

NOTE XLVII. SECT. III. p. 128.

LEIBNITZ has preserved a curious paper, containing the instructions of the republic of Florence to the two ambassadors sent to the Soldan of Egypt, in order to negotiate this treaty with him, together with the report of these ambassadors on their return. The great object of the republic was to obtain liberty of trading in all parts of the Soldan's dominions, upon the same terms with the Venetians. The chief privileges which they solicited were, 1. A perfect freedom of admission into every port belonging to the Soldan, protection while they continued in it, and liberty of departure at what time they chose. 2. Permission to have a consul, with the same rights and jurisdiction as those of the Venetians; and liberty to build a church, a warehouse, and a bath, in every place where they settled. 3. That they should not pay for goods imported or exported higher duties than were paid by the Venetians. 4. That the effects of any Florentine who died in the dominions of the Soldan should be consigned to the consul. 5. That the gold and silver coin of Florence should be received in payments. All these privileges (which shew on what equal and liberal terms Christians and Mahomedans now carried on trade) the Florentines obtained; but from the causes mentioned in the text, they seem never to have acquired any considerable share in the commerce with India. Leibnitz, *Mantissa Cod. Jur. Gent. Diplom. Pars altera*, p. 163.

## NOTE XLVIII. SECT. III. p. 133.

THE eastern parts of Asia are now so completely explored, that the first imperfect accounts of them, by Marco Polo, attract little of that attention which was originally excited by the publication of his travels; and some circumstances in his narrative have induced different authors to justify this neglect, by calling in question the truth of what he relates, and even to assert that he had never visited those countries which he pretends to describe. He does not, say they, ascertain the position of any one place, by specifying its longitude or latitude. He gives names to provinces and cities, particularly in his description of Cathay, which have no resemblance to those which they now bear. We may observe, however, that as Marco Polo seems to have been, in no degree, a man of science, it was not to be expected that he should fix the position of places with geographical accuracy. As he travelled through China, either in the suite of the great Khan, or in execution of his orders, it is probable that the names which he gives to different provinces and cities, are those by which they were known to the Tartars in whose service he was, not their original Chinese names. Some inaccuracies which have been observed in the relation of his travels may be accounted for by attending to one circumstance, that it was not published from a regular journal, which, perhaps, the vicissitudes in his situation, during such a long series of adventures, did not permit him to keep, or to preserve. It was composed after his return to his native country, and chiefly from recollection. But notwithstanding this disadvantage, his account of those regions of the East towards which my inquiries have been directed, contains information with respect to several particulars altogether unknown in Europe at that

time, the accuracy of which is now fully confirmed. Mr Marsden, whose accuracy and discernment are well known, traces his description of the island which he calls Java Minor, evidently Sumatra; from which it is apparent, that as Marco Polo had resided a considerable time in that island, he had examined some parts with care, and had inquired with diligence concerning others. Hist. of Sumat. p. 281. I shall mention some other particulars with respect to India, which, though they relate to matters of no great consequence, afford the best proof of his having visited these countries, and of his having observed the manners and customs of the people with attention. He gives a distinct account of the nature and preparation of Sago, the principal article of subsistence among all the nations of Malayan race, and he brought the first specimen of this singular production to Venice. Ramus. lib. iii. c. 16. He takes notice, likewise, of the general custom of chewing Betel, and his description of the mode of preparing it is the same with that still in use. Ramus. Viaggi, i. p. 55. D. p. 56. B. He even descends into such detail as to mention the peculiar manner of feeding horses in India, which still continues. Ramus. p. 53. F. What is of greater importance, we learn from him that the trade with Alexandria continued, when he travelled through India, to be carried on in the same manner as I conjectured it to have been in ancient times. The commodities of the East were still brought to the Malabar Coast by vessels of the country, and conveyed thence, together with pepper and other productions peculiar to that part of India, by ships which arrived from the Red Sea. Lib. iii. c. 27. This, perhaps, may account for the superior quality which Sanudo ascribes to the goods brought to the coast of Syria from the Persian Gulf, above those imported into Egypt by the Red Sea. The former were chosen and purchased in the places where they

grew, or where they were manufactured, by the merchants of Persia, who still continued their voyages to every part of the East; while the Egyptian merchants, in making up their cargoes, depended upon the assortment of goods brought to the Malabar Coast by the natives. To some persons in his own age, what Marco Polo related concerning the numerous armies and immense revenues of the Eastern Princes appeared so extravagant, (though perfectly consonant to what we now know concerning the population of China, and the wealth of Indostan), that they gave him the name of *Messer Marco Milioni*. Prefat. de Ramus. p. 4. But among persons better informed, the reception he met with was very different. Columbus, as well as the men of science with whom he corresponded, placed such confidence in the veracity of his relations, that upon them the speculations and theories which led to the discovery of the New World, were in a great measure founded. Life of Columbus by his Son, c. 7. and 8.

NOTE XLIX. SECT. III. p. 140.

IN the year 1301, Joanna of Navarre, the wife of Philip le Bel, King of France, having been some days in Bruges, was so much struck with the grandeur and wealth of that city, and particularly with the splendid appearance of the citizens' wives, that she was moved (says Guicciardini) by female envy to exclaim with indignation, "I thought that I had been the only Queen here, but I find there are many hundreds more." Descriit. de Paesi Bassi, p. 408.



## NOTE L. SECT. III. p. 141.

IN the history of the reign of Charles V. vol. i. p. 163. I observe, that, during the war excited by the famous League of Cambray, while Charles VIII. of France could not procure money at a less premium than forty-two per cent, the Venetians raised what sums they pleased at five per cent. But this, I imagine, is not to be considered as the usual commercial rate of interest at that period, but as a voluntary and public-spirited effort of the citizens, in order to support their country at a dangerous crisis. Of such laudable exertions there are several striking instances in the history of the republic. In the year 1379, when the Genoese, after obtaining a great naval victory over the Venetians, were ready to attack their capital, the citizens, by a voluntary contribution, enabled the senate to fit out such a powerful armament as saved their country. Sabellicus, *Hist. Rer. Venet.* Dec. ii. lib. vi. p. 385. 390. In the war with Ferrara, which began in the year 1472, the senate, relying upon the attachment of the citizens to their country, required them to bring all their gold and silver plate, and jewels, into the public treasury, upon promise of paying the value of them at the conclusion of the war, with five per cent of interest; and this requisition was complied with cheerfully. Petr. Cynæus de Bello Ferrar. ap. Murat. *Script. Rer. Ital.* vol. xxi. p. 1016.

## NOTE LI. SECT. III. p. 142.

Two facts may be mentioned as proofs of an extraordinary extension of the Venetian trade at this period:—  
1. There is in Rymer's Great Collection, a series of

grants from the Kings of England, of various privileges and immunities to Venetian merchants trading in England, as well as several commercial treaties with the republic, which plainly indicate a considerable increase of their transactions in that country. These are mentioned in their order by Mr Anderson, to whose patient industry and sound understanding every person engaged in any commercial research must have felt himself greatly indebted on many occasions.—2. The establishment of a Bank by public authority, the credit of which was founded on that of the state. In an age and nation so well acquainted with the advantages which commerce derives from the institution of banks, it is unnecessary to enumerate them. Mercantile transactions must have been numerous and extensive before the utility of such an institution could be fully perceived, or the principles of trade could be so fully understood as to form the regulations proper for conducting it with success. Venice may boast of having given the first example to Europe, of an establishment altogether unknown to the ancients, and which is the pride of the modern commercial system. The constitution of the Bank of Venice was originally founded on such just principles, that it has served as a model in the establishment of banks in other countries, and the administration of its affairs has been conducted with so much integrity, that its credit has never been shaken. I cannot specify the precise year in which the Bank of Venice was established by a law of the State. Anderson supposes it to have been A. D. 1157. Chron. Deduct. vol. i. p. 84. Sandi Stor. Civil. Venes. Part II. vol. ii. p. 768. Part III. vol. ii. p. 892.

## NOTE LII. SECT. III. p. 143.

AN Italian author of good credit, and a diligent inquirer into the ancient history of its different governments, affirms, that if the several States which traded in the Mediterranean had united together, Venice alone would have been superior to them all, in naval power and in extent of commerce. Denina, *Revolutions d'Italie traduits par l'Abbe Jardin*, lib. xviii. c. 6. tom. vi. p. 339. About the year 1420, the Doge Mocenigo gives a view of the naval force of the republic, which confirms this decision of Denina. At that time it consisted of three thousand trading vessels, of various dimensions, on board which were employed seventeen thousand sailors; of three hundred ships of greater force, manned by eight thousand sailors; and of forty-five large galleasses, or carracks, navigated by eleven thousand sailors. In public and private arsenals sixteen thousand carpenters were employed. Mar. Sanuto *Vite de Duchii di Venezia*, ap. Mur. *Script. Rer. Ital.* vol. xxii. p. 959.

## NOTE LIII. SECT. III. p. 160.

WHEN we take a view of the form and position of the habitable parts of Asia and Africa, we will see good reasons for considering the camel as the most useful of all the animals over which the inhabitants of these great continents have acquired dominion. In both, some of the most fertile districts are separated from each other by such extensive tracts of barren sands, the seats of desolation and drought, as seem to exclude the possibility of communication between them. But as the ocean, which appears, at first view, to be placed as an insuperable barrier between different regions of the earth, has

been rendered, by navigation, subservient to their mutual intercourse, so by means of the camel, which the Arabians emphatically call *The ship of the Desert*, the most dreary wastes are traversed, and the nations which they disjoin are enabled to trade with one another. Those painful journeys, impracticable by any other animal, the camel performs with astonishing dispatch. Under heavy burdens of six, seven, and eight hundred weight, they can continue their march during a long period of time, with little food or rest, and sometimes without tasting water for eight or nine days. By the wise economy of Providence, the camel seems formed of purpose to be the beast of burden in those regions where he is placed, and where his service is most wanted. In all the districts of Asia and Africa, where deserts are most frequent and extensive, the camel abounds. This is his proper station, and beyond this the sphere of his activity does not extend far. He dreads alike the accesses of heat and of cold, and does not agree even with the mild climate of our temperate zone. As the first trade in Indian commodities, of which we have any authentic account, was carried on by means of camels, Genesis xxxvii. 25. and as it is by employing them that the conveyance of these commodities has been so widely extended over Asia and Africa, the particulars which I have mentioned concerning this singular animal appeared to be necessary towards illustrating this part of my subject. If any of my readers desire more full information, and wish to know how the ingenuity and art of man have seconded the intentions of Nature, in training the camel from his birth for that life of exertion and hardship to which he is destined, he may consult *Histoire Naturelle*, by M. le Comte de Buffon, artic. *Chameau et Dromedaire*, one of the most eloquent, and, as far as I can judge from examining the authorities which he has quoted, one of the most accurate descriptions given by that celebrated

writer. M. Volney, whose accuracy is well known, gives a description of the manner in which the camel performs its journey, which may be agreeable to some of my readers. "In travelling through the desert, camels are chiefly employed because they consume little, and carry a great load. His ordinary burden is about seven hundred and fifty pounds; his food, whatever is given him, straw, thistles, the stones of dates, beans, barley, &c. With a pound of food a-day, and as much water, he will travel for weeks. In the journey from Cairo to Suez, which is forty or forty-six hours, they neither eat nor drink; but these long fasts, if often repeated, wear them out. Their usual rate of travelling is very slow, hardly above two miles an hour; it is vain to push them, they will not quicken their pace; but, if allowed some short rest, they will travel fifteen or eighteen hours a-day." Voyage, tom. ii. p. 383.

NOTE LIV. SECT. III. p. 162.

IN order to give an adequate idea of the extensive circulation of Indian commodities by land-carriage, it would be necessary to trace the route, and to estimate the number of the various caravans by which they are conveyed. Could this be executed with accuracy, it would be a curious subject of geographical research, as well as a valuable addition to commercial history. Though it is inconsistent with the brevity which I have uniformly studied in conducting this Disquisition, to enter into a detail of so great length, it may be proper here, for illustrating this part of my subject, to take such a view of two caravans which visit Mecca, as may enable my readers to estimate more justly the magnitude of their commercial transactions. The first is the caravan which takes its departure from Cairo in Egypt, and the other

from Damascus in Syria; and I select these, both because they are the most considerable, and because they are described by authors of undoubted credit, who had the best opportunities of receiving full information concerning them. The former is composed not only of pilgrims from every part of Egypt, but of those which arrive from all the small Mahomedan states on the African coast of the Mediterranean, from the empire of Morocco, and even from the Negro kingdoms on the Atlantic. When assembled, the caravan consists at least of fifty thousand persons, and the number of camels employed in carrying water, provisions, and merchandise, is still greater. The journey, which, in going from Cairo, and returning thither, is not completed in less than a hundred days, is performed wholly by land; and as the route lies mostly through sandy deserts, or barren uninhabited wilds, which seldom afford any subsistence, and where often no sources of water can be found, the pilgrims always undergo much fatigue, and sometimes must endure incredible hardships. An early and good description of this caravan is published by Hakluyt, vol. ii. p. 202, &c. Maillet has entered into a minute and curious detail with regard to it; *Descript. de l'Egypte*, part ii. p. 212, &c. Pococke has given a route, together with the length of each day's march, which he received from a person who had been fourteen times at Mecca, vol. i. p. 188. 261, &c.—The caravan from Damascus, composed of pilgrims from almost every province of the Turkish empire, is little inferior to the former in number, and the commerce which it carries on is hardly less valuable. *Voyage de Volney*, tom. ii. p. 251, &c. Ohsson, *Tabl. Gener. de l'Empire Othom.* III. p. 275, &c. This pilgrimage was performed in the year 1741, by Khojeh Abdulkurreem, whom I formerly mentioned, Note V. p. 296. He gives the usual route from Damascus to Mecca, computed by hours, the common mode of reckon-

ing a journey in the East, through countries little frequented. According to the most moderate estimate, the distance between the two cities, by his account, must be above a thousand miles: a great part of the journey is through a desert, and the pilgrims not only endure much fatigue, but are often exposed to great danger from the wild Arabs. *Memoirs*, p. 114, &c. It is a singular proof of the predatory spirit of the Arabs, that although all their independent tribes are zealous Mahomedans, yet they make no scruple of plundering the caravans of pilgrims while engaged in performing one of the most indispensable duties of their religion. A remarkable instance of this occurred in the year 1757. *Travels through Cyprus, Syria, &c. by Abbé Mariti*, vol. ii. p. 117, &c. *Engl. Translation*. Great as these caravans are, we must not suppose that all the pilgrims who visit Mecca belong to them; such considerable additions are received from the extensive dominions of Persia, from every province of Indostan, and the countries to the east of it, from Abyssinia, from various states on the southern coast of Africa, and from all parts of Arabia, that when the whole are assembled they have been computed to amount to two hundred thousand. In some years the number is farther increased by small bands of pilgrims from several interior provinces of Africa, the names and situations of which are just beginning to be known in Europe. For this last fact we are indebted to the Association for promoting the Discovery of the Interior Parts of Africa, formed by some British Gentlemen, upon principles so liberal, and with views so public-spirited, as do honour to themselves and to their country. *Proceedings, &c.* p. 174.

IN the Report of the Committee of the Privy-Council on the Slave Trade, other particulars are contained; and it appears that the commerce carried on by caravans in

the interior parts of Africa is not only widely extended, but of considerable value. Besides the great caravan which proceeds to Cairo, and is joined by Mahomedan pilgrims from every part of Africa, there are caravans which have no object but commerce, which set out from Fez, Algiers, Tunis, Tripoli, and other states on the sea-coast, and penetrate far into the interior country. Some of them take no less than fifty days to reach the place of their destination; and, as the medium of their rate of travelling may be estimated at about eighteen miles a-day, the extent of their journey may be easily computed. As both the time of their outset and their route are known, they are met by the people of all the countries through which they travel, who trade with them. Indian goods of every kind form a considerable article in this traffic, in exchange for which the chief commodity they can give is slaves. Part vi.

As the journeys of the caravans which are purely commercial do not commence at stated seasons, and their routes vary according to the convenience or fancy of the merchants of whom they are composed, a description cannot be given of them with the same degree of accuracy as of the great caravans which visit Mecca. But by attending to the accounts of some authors, and the occasional hints of others, sufficient information may be gathered to satisfy us, that the circulation of eastern goods by these caravans is very extensive. The same intercourse which was anciently kept up by the provinces in the north-east of Asia with Indostan and China, and which I formerly described, still subsists. Among all the numerous tribes of Tartars, even of those which retain their pastoral manners in greatest purity, the demand for the productions of these two countries is very considerable. Voyages de Pallas, tom. i. p. 357. &c. tom. ii. p. 422. In order to supply them with these,



caravans set out annually from Boghar, (Hackluyt, vol. i. p. 332.) Samarcand, Thibet, and several other places, and return with large cargoes of Indian and Chinese goods. But the trade carried on between Russia and China in this part of Asia is by far the most extensive and best known. Some connexion of this kind, it is probable, was kept up between them from the earliest period, but it increased greatly after the interior parts of Russia were rendered more accessible by the conquests of Zingis Khan and Tamerlane. The commercial nations of Europe were so well acquainted with the mode of carrying on this trade, that soon after the Portuguese had opened the communication with the East by the Cape of Good Hope, an attempt was made, in order to diminish the advantages which they derived from this discovery, to prevail on the Russians to convey Indian and Chinese commodities through the whole extent of their empire, partly by land-carriage and partly by means of navigable rivers, to some port on the Baltic, from which they might be distributed through every part of Europe. Ramusio Raccolto da Viaggi, vol. i. p. 374. B. Hist. du Commerce de la Russie, par M. Schreder, tom. i. p. 13, 14. This scheme, too great for the monarch then on the throne of Russia to carry into execution, was rendered practicable by the conquests of Ivan Basilowitz, and the genius of Peter the Great. Though the capitals of the two empires were situated at the immense distance of six thousand three hundred and seventy-eight miles from each other, and the route lay for above four hundred miles through an uninhabited desert, (Bell's Travels, vol. ii. p. 167.) caravans travelled from the one to the other. But though it had been stipulated, when this intercourse was established, that the number of persons in each caravan should not exceed two hundred, and though they were shut up within the walls of a Caravanserai during the short time they were

suffered to remain in Peking, and were allowed to deal only with a few merchants, to whom a monopoly of the trade with them had been granted; yet, notwithstanding all these restraints and precautions, the jealous vigilance with which the Chinese government excludes foreigners from a free intercourse with its subjects, was alarmed, and the admission of the Russian caravans into the empire was soon prohibited. After various negotiations an expedient was at length devised, by which the advantages of mutual commerce were secured, without infringing the cautious arrangements of Chinese policy. On the boundary of the two empires, two small towns were built almost contiguous, Kiachta inhabited by Russians, and Maimatschin by Chinese. To these all the marketable productions of their respective countries are brought by the subjects of each empire; and the furs, the linen and woollen cloth, the leather, the glass, &c. of Russia, are exchanged for the silk, the cotton, the tea, the rice, the toys, &c. of China. By some well-judged concessions of the sovereign now seated on the throne of Russia, whose enlarged mind is superior to the illiberal maxims of many of her predecessors, this trade is rendered so flourishing, that its amount annually is not less than eight hundred thousand pounds sterling, and it is the only trade which China carries on almost entirely by barter, Mr Coxe, in his account of the Russian discoveries, has collected, with his usual attention and discernment, every thing relative to this branch of trade, the nature and extent of which were little known in Europe. Part ii. chap. ii. iii. iv. Nor is Kiachta the only place where Russia receives Chinese and Indian commodities. A considerable supply of both is brought by caravans of independent Tartars to Orenburg, on the river Jaik; Voyage de Pallas, tom. i. p. 355, &c.; to Troitzkaia, on the river Oui, and to other places which I might mention. I have entered

into this long detail concerning the mode in which the productions in India and China are circulated through Russia, as it affords the most striking instance I know, of the great extent to which valuable commodities may be conveyed by land-carriage.

NOTE LV. SECT. IV. p. 166.

THE only voyage of discovery in the Atlantic Ocean towards the south, by any of the ancient commercial states in the Mediterranean, is that of Hanno, undertaken by order of the republic of Carthage. As the situation of that city, so much nearer the Straits than Tyre, Alexandria, and the other seats of ancient trade which have been mentioned, gave it more immediate access to the ocean; that circumstance, together with the various settlements which the Carthaginians had made in different provinces of Spain, naturally suggested to them this enterprise, and afforded them the prospect of considerable advantages from its success. The voyage of Hanno, instead of invalidating, seems to confirm the justness of the reasons which have been given, why no similar attempt was made by the other commercial states in the Mediterranean.

NOTE LVI. SECT. IV. p. 167.

THOUGH the intelligent authors whom I have quoted considered this voyage of the Phœnicians as fabulous, Herodotus mentions a circumstance concerning it which seems to prove that it had really been performed. "The Phœnicians," says he, "affirmed that, in sailing round Africa, they had the sun on their right hand, which to me appears not to be credible, though it may

be deemed so by others." Lib. iv. c. 42. This, it is certain, must have happened, if they really accomplished such a voyage. The science of astronomy, however, was in that early period so imperfect, that it was by experience only that the Phœnicians could come at the knowledge of this fact; they durst not, without this, have ventured to assert what would have appeared to be an improbable fiction. Even after what they related, Herodotus disbelieved it.

NOTE LVII. SECT. IV. p. 176.

NOTWITHSTANDING this increased demand for the productions of India, it is remarkable that during the sixteenth century some commodities which are now the chief articles of importation from the East, were either altogether unknown, or of little account. Tea, the importation of which, at present, far exceeds that of any other production of the East, has not been in general use in any country of Europe a full century; and yet, during that short period, from some singular caprice of taste, or power of fashion, the infusion of a leaf brought from the farthest extremity of the earth, of which it is perhaps the highest praise to say that it is innocuous, has become almost a necessary of life in several parts of Europe, and the passion for it descends from the most elevated to the lowest orders in society. In 1785 it was computed that the whole quantity of tea imported into Europe from China was about nineteen millions of pounds, of which it is conjectured that twelve millions were consumed in Great Britain and the dominions depending upon it. Dodsley's Annual Register for 1784 and 1785, p. 156. In 1789 twenty-one millions of pounds were imported. The porcelain of China, now as common in many parts of Europe as if it were of

domestic manufacture, was not known to the ancients. Marco Polo is the first among the moderns who mentions it. The Portuguese began to import it not long after their first voyage to China, A. D. 1517; but it was a considerable time before the use of it became extensive.

## NOTE LVIII. p. 200.

ACCORDING to all the writers of antiquity, the Indians are said to be divided into seven tribes or casts. Strabo, lib. xv. p. 1029. C. &c. Diod. Sicul. lib. ii. p. 153, &c. Arrian, Indic. c. 10. They were led into this error, it is probable, by considering some of the subdivisions of the casts, as if they had been a distinct independent order. But that there were no more than four original casts, we learn from the concurring testimony of the best informed modern travellers. A most distinct account of these we have in "La Porte Ouverte, ou la vraye Representation de la Vie, des Mœurs, de la Religion, et du Service des Brahmines, qui demeurent sur les Costes de Choromandel," &c. This was compiled before the middle of last century, by Abraham Roger, chaplain of the Dutch factory at Pullicate. By gaining the confidence of an intelligent Brahmin, he acquired information concerning the manners and religion of the Indians, more authentic and extensive than was known to Europeans prior to the late translations from the Sanskreet language. I mention this book, because it seems to be less known than it deserves to be. There remains now no doubt with respect either to the number or the functions of the casts, as both are ascertained from the most ancient and sacred books of the Hindoos, and confirmed by the accounts of their own institutions, given by Brahmins eminent for their learning. Accord-

ing to them, the different casts proceeded from Brahma, the immediate agent of the creation under the Supreme Power, in the following manner, which establishes both the rank which they were to hold, and the office which they were required to perform.

The *Brahmin*, from the mouth (wisdom): To pray, to read, to instruct.

The *Chehetree*, from the arms (strength): To draw the bow, to fight, to govern.

The *Bice*, from the belly or thighs (nourishment): To provide the necessaries of life by agriculture and traffic.

The *Sooder*, from the feet (subjection): To labour, to serve.

THE prescribed occupations of all these classes are essential in a well regulated state. Subordinate to them is a fifth or adventitious class, denominated *Burrin Sunkur*, supposed to be the offspring of an unlawful union between persons of different casts. These are mostly dealers in petty articles of retail trade. Preface to the Code of Gentoo Laws, p. xlvi. and xcix. This adventitious class is not mentioned, as far as I know, by any European author. The distinction was too nice to be observed by them, and they seem to consider the members of this cast as belonging to the Sooder. Besides these acknowledged casts, there is a race of unhappy men, denominated on the Coromandel Coast *Pariars*, and in other parts of India *Chandalas*. These are outcasts from their original order, who by their misconduct have forfeited all the privileges of it. Their condition is, undoubtedly, the lowest degradation of human nature.

No person of any cast will have the least communication with them. Sonnerat, tom. i. p. 55, 56. If a Pariar approach a *Nayr*, i. e. a warrior of high cast, on the Malabar Coast, he may put him to death with impunity. Water or milk are considered as defiled even by their shadow passing over them, and cannot be used until they are purified. Ayeen Akbery, vol. iii. p. 243. It is almost impossible for words to express the sensation of vileness that the name of Pariar or Chandala conveys to the mind of a Hindoo. Every Hindoo who violates the rules or institutions of his cast, sinks into this degraded situation. This it is which renders Hindoos so resolute in adhering to the institutions of their tribe, because the loss of cast is, to them, the loss of all human comfort and respectability; and is a punishment, beyond comparison, more severe than excommunication in the most triumphant period of papal power.

THE four original casts are named, and their functions described in the Mahabarat, the most ancient book of the Hindoos, and of higher authority than any with which Europeans are hitherto acquainted. Baghvat-Geeta, p. 130. The same distinction of casts was known to the author of Heeto-Pades, another work of considerable antiquity, translated from the Sanskreet, p. 251.

THE mention of one circumstance respecting the distinction of casts has been omitted in the text. Though the line of separation be so drawn, as to render the ascent from an inferior to a higher cast absolutely impossible; and it would be regarded as a most enormous impiety if one in a lower order should presume to perform any function belonging to those of a superior cast; yet, in certain cases, the Pundits declare it to be lawful for persons of a high class to exercise some of the occupations allotted to a class below their own, without losing

their cast by doing so. Pref. of Pundits to the Code of Gentoo Laws, p. 100. Accordingly we find Brahmins employed in the service of their Princes, not only as ministers of state, Orme's Fragments, p. 207. but in subordinate stations. Most of the officers of high rank in the army of Sevagi, the founder of the Mahratta state, were Brahmins, and some of them Pundits or learned Brahmins. Ibid. p. 97. Hurry Punt and Purseram Bhow, who commanded the Mahratta forces which acted in conjunction with the army of Lord Cornwallis against Tippoo Saib, were Brahmins. Many Sepoys in the service of the East India Company, particularly in the Bengal Presidency, are of the Brahmin cast.

ANOTHER fact concerning the casts deserves notice. An immense number of pilgrims, amounting in some years to more than 150,000, visit the Pagoda of Jagger-naut in Orissa, (one of the most ancient and most revered places of Hindoo worship), at the time of the annual festival in honour of the deity to whom the temple is consecrated. The members of all the four casts are allowed promiscuously to approach the altar of the idol, and seating themselves without distinction, eat indiscriminately of the same food. This seems to indicate some remembrance of a state prior to the institution of casts, when all men were considered as equal. I have not such information as enables me to account for a practice so repugnant to the first ideas and principles of the Hindoos, either sacred or civil. Bernier, tom. ii. p. 102. Tavernier, book ii. c. 9. Anquetil, Disc. Prelim. p. 81. Sketches, p. 96.

SOME of my readers must have observed, that I have not mentioned the numerous orders of Indian devotees, to all of whom European writers gave the appellation of *Faquirs*; a name by which the Mahomedans distinguish



fanatical monks of their own religion. The light in which I have viewed the religious institutions of the Hindoos, did not render it necessary that I should consider the Indian Faquirs particularly. Their number, the rigour of their mortifications, the excruciating penances which they voluntarily undergo, and the high opinion which the people entertain of their sanctity, have struck all travellers who had visited India, and their descriptions of them are well known. The powerful influence of enthusiasm, the love of distinction, and the desire of obtaining some portion of that reverence and those honours which the Brahmins are born to enjoy, may account for all the extraordinary things which they do and suffer. One particular concerning them merits notice. This order of devotees appears to have been very ancient in India. The description of the *Germani*, which Strabo takes from Megasthenes, applies almost in every circumstance to the modern Faquirs. Lib. xv. p. 1040. B.

## NOTE LIX. p. 202.

WHAT I have asserted in the text is in general well founded. It is the opinion, however, of gentlemen who have seen much of India, and who observed all they saw with a discerning eye, that the conquests both of the Mahomedans and of the Europeans have had some effect upon the manners and customs of the natives. They imagine that the dress which the Hindoos now wear, the turban, the jummah, and long drawers, is an imitation of that worn by their Mahomedan conquerors. The ancient dress of the Indians, as described by Arrian, Hist. Indic. c. 16. was a muslin cloth thrown loosely about their shoulders, a muslin shirt reaching to the middle of the leg, and their beards were dyed various colours; which is not the same with that used at present.

The custom of secluding women, and the strictness with which they are confined, is likewise supposed to have been introduced by the Mahomedans. This supposition is in some measure confirmed by the drama of *Sacontala*, translated from the Sanskreet. In that play several female characters are introduced, who mingle in society, and converse as freely with men, as women are accustomed to do in Europe. The author, we may presume, describes the manners, and adheres to the customs of his own age. But while I mention this remark, it is proper likewise to observe, that from a passage in *Strabo* there is reason to think, that in the age of *Alexander the Great* women in India were guarded with the same jealous attention as at present. "When their princes" (says he, copying *Megasthenes*) "set out upon a public hunt, they are accompanied by a number of their women, but along the road in which they travel ropes are stretched on each side, and if any man approach near to them, he is instantly put to death." *Lib. xv. p. 1037. A.* In some parts of India, where the original manners of the people may be supposed to subsist in greatest purity, particularly in the high country towards the sources of the *Indus*, women of rank reside in private apartments, secluded from society. *Forster's Travels, vol. i. p. 228.* Women even of the *Brahmin* cast appear in the streets without a veil; and it is only, as I am informed, in the houses of persons of high rank or great opulence, that a distinct quarter or *haram* is allotted to the women. The influence of European manners begins to be apparent among the *Hindoos* who reside in the town of *Calcutta*. Some of them drive about in English chariots, sit upon chairs, and furnish their houses with mirrors. Many circumstances might be mentioned, were this the proper place, which, it is probable, will contribute to the progress of this spirit of imitation.

## NOTE LX. p. 203.

IT is amusing to observe how exactly the ideas of an intelligent Asiatic coincide with those of the Europeans on this subject. "In reflecting," says he, "upon the poverty of Turan (the countries beyond the Oxus) and Arabia, I was at first at a loss to assign a reason why these countries have never been able to retain wealth, whilst, on the contrary, it is daily increasing in Indostan. Timur carried into Turan the riches of Turkey, Persia, and Indostan, but they are all dissipated; and, during the reigns of the four first Caliphs, Turkey, Persia, part of Arabia, Ethiopia, Egypt, and Spain, were their tributaries; but still they were not rich. It is evident, then, that this dissipation of the riches of a state, must have happened either from extraordinary drains, or from some defect in the government. Indostan has been frequently plundered by foreign invaders, and not one of its Kings ever gained for it any acquisition of wealth; neither has the country many mines of gold and silver, and yet Indostan abounds in money and every other kind of wealth. The abundance of specie is undoubtedly owing to the large importation of gold and silver in the ships of Europe, and other nations, many of whom bring ready money in exchange for the manufactures and natural productions of the country. If this is not the cause of the prosperous state of Indostan, it must be owing to the peculiar blessing of God." *Memoirs of Kojeh Abdulkureem, a Cashmerian of distinction*, p. 42.

## NOTE LXI. p. 209.

THAT the monarchs of India were the sole proprietors of land, is asserted in most explicit terms by the ancients.

The people (say they) pay a land-tax to their Kings, because the whole kingdom is regal property. Strabo, lib. xv. p. 1030. A. Diod. Sicul. lib. ii. p. 153. This was not peculiar to India. In all the great monarchies of the East, the sole property of land seems to be vested in the sovereign as lord paramount. According to Chardin, this is the state of property in Persia, and lands were let by the monarch to the farmers who cultivated them, on conditions nearly resembling those granted to the Indian Ryots. Voyages, tom. iii. p. 339. &c. 4to. M. Volney gives a similar account of the tenure by which lands are held in one of the great provinces of the Turkish empire. Voyage en Syrie, &c. tom. ii. p. 369, &c. The precise mode, however, in which the Ryots of Indostan held their possessions, is a circumstance in its ancient political constitution, with respect to which gentlemen of superior discernment, who have resided long in the country, and filled some of the highest stations in government, have formed very different opinions. Some have imagined that grants of land were made by the sovereign to villages or small communities, the inhabitants of which, under the direction of their own chiefs or heads-men, laboured it in common, and divided the produce of it among them in certain proportions. Descript. de l'Ind. par M. Bernouilli, tom. ii. 223, &c. Others maintain, that the property of land has been transferred from the crown to hereditary officers of great eminence and power, denominated *Zemindars*, who collect the rents from the Ryots, and parcel out the lands among them. Others contend, that the office of the *Zemindars* is temporary and ministerial, that they are merely collectors of revenue, removeable at pleasure, and the tenure by which the Ryots hold their possessions is derived immediately from the sovereign. This last opinion is supported with great ability by Mr Grant, in an Inquiry into the nature of *Zemindary Tenures* in the

landed property of Bengal, &c. This question still continues to be agitated in Bengal, and such plausible arguments have been produced in support of the different opinions, that although it be a point extremely interesting, as the future system of British finance in India appears likely to hinge, in an essential degree, upon it, persons well acquainted with the state of India have not been able to form a final and satisfactory opinion on this subject. Captain Kirkpatrick's *Introd. to the Institutes of Ghazan Khan*, *New Asiatic Miscel.* N<sup>o</sup> II. p. 130. Though the sentiments of the Committee of Revenue, composed of persons eminent for their abilities, lean to a conclusion against the hereditary right of the Zemindars in the soil, yet the Supreme Council, in the year 1786, declined, for good reasons, to give any decisive judgment on a subject of such magnitude.—This note was sent to the press before I had it in my power to peruse Mr Rouse's ingenious and instructive dissertation concerning the landed property of Bengal. In it he adopts an opinion contrary to that of Mr Grant, and maintains, with that candour and liberality of sentiment which are always conspicuous where there is no other object in view but the discovery of truth, that the Zemindars of Bengal possessed their landed property by hereditary right. Were I possessed of such knowledge either of the state of India, or of the system of administration established there, as would be requisite for comparing these different theories, and determining which of them merits the preference, the subject of my researches does not render it necessary to enter into such a disquisition. I imagine, however, that the state of landed property in India might be greatly illustrated by an accurate comparison of it with the nature of feudal tenures; and I apprehend that there might be traced there a succession of changes taking place in much the same order as has been observed in Europe; from which it might appear,

that the possession of land was granted at first during pleasure, afterwards for life, and at length became perpetual and hereditary property. But even under this last form, when land is acquired either by purchase or inheritance, the manner in which the right of property is confirmed and rendered complete, in Europe by a Charter, in India by a *Sunnud* from the sovereign, seems to point out what was its original state. According to each of the theories which I have mentioned, the tenure and condition of the Ryots nearly resemble the description which I have given of them. Their state, we learn from the accounts of intelligent observers, is as happy and independent as falls to the lot of any race of men employed in the cultivation of the earth. The ancient Greek and Roman writers, whose acquaintance with the interior parts of India was very imperfect, represent the fourth part of the annual produce of land as the general average of rent paid to the sovereign. Upon the authority of a popular author who flourished in India prior to the Christian era, we may conclude that the sixth part of the people's income was, in his time, the usual portion of the sovereign. Sacontala, Act v. p. 53. It is now known that what the sovereign receives from land varies greatly in different parts of the country, and is regulated by the fertility or barrenness of the soil, the nature of the climate, the abundance or scarcity of water, and many other obvious circumstances. By the account given of it, I should imagine that, in some districts, it has been raised beyond its due proportion. One circumstance with respect to the administration of revenue in Bengal merits notice, as it redounds to the honour of the Emperor Akber, the wisdom of whose government I have often had occasion to celebrate. A general and regular assessment of revenue in Bengal was formed in his reign. All the lands were then valued, and the rent of each inhabitant and of each village ascertained. A

regular gradation of accounts was established. The rents of the different inhabitants who lived in one neighbourhood being collected together, formed the account of a village; the rents of several villages being next collected into one view, formed the accounts of a larger portion of land. The aggregate of these accounts exhibited the rent of a district; and the sum total of the rents of all the districts in Bengal, formed the account of the revenue of the whole province. From the reign of Akber to the government of Jaffeer Ali Cawn, A. D. 1757, the annual amount of revenue, and the modes of levying it, continued with little variation. But in order to raise the sum which he had stipulated to pay the English on his elevation, he departed from the wise arrangements of Akber; many new modes of assessment were introduced, and exactions multiplied.

## NOTE LXII. p. 211.

I SHALL mention only one instance of their attention to this useful regulation of police. Lahore, in the Panjab, is distant from Agra, the ancient capital of Indostan, five hundred miles. Along each side of the road between these two great cities, there is planted a continued row of shady trees, forming an avenue, to which (whether we consider its extent, its beauty, or utility in a hot climate,) there is nothing similar in any country. Rennell's Memoir, p. 69.

## NOTE LXIII. p. 215.

WE cannot place the equitable and mild government of Akber in a point of view more advantageous, than by contrasting it with the conduct of other Mahomedan

princes. In no country did this contrast ever appear more striking than in India. In the thousandth year of the Christian era, Mahmud of Ghazna, to whose dominion were subjected the same countries which formed the ancient kingdom of Bactria, invaded Indostan. Every step of his progress in it was marked with blood and desolation. The most celebrated Pagodas, the ancient monuments of Hindoo devotion and magnificence, were destroyed, the ministers of religion were massacred, and with undistinguishing ferocity the country was laid waste, and the cities were plundered and burnt. About four hundred years after Mahmud, Timur, or Tamerlane, a conqueror of higher fame, turned his irresistible arms against Indostan; and though born in an age more improved, he not only equalled, but often so far surpassed the cruel deeds of Mahmud, as to be justly branded with the odious name of the "Destroying Prince," which was given to him by the Hindoos, the undeserving victims of his rage. A rapid but striking description of their devastations may be found in Mr Orme's Dissertation on the Establishments made by the Mahomedan conquerors in Indostan. A more full account of them is given by Mr Gibbon, vol. v. p. 646. vol. vi. p. 339, &c. The arrogant contempt with which bigoted Mahomedans view all the nations who have not embraced the religion of the Prophet, will account for the unrelenting rigour of Mahmud and Timur towards the Hindoos, and greatly enhances the merit of the tolerant spirit and moderation with which Akber governed his subjects. What impression the mild administration of Akber made upon the Hindoos, we learn from a beautiful letter of Jesswant Sing, Rajah of Joudpore, to Aurengzebe, his fanatical and persecuting successor. "Your royal ancestor, Akber, whose throne is now in heaven, conducted the affairs of this empire in equity and firm security for the space of fifty-two years, preserving every tribe of men in



case and happiness; whether they were followers of Jesus or of Moses, of David or of Mahomed; were they Brahmins, were they of the sect of Dharians, which denies the eternity of matter, or of that which ascribes the existence of the world to chance, they all equally enjoyed his countenance and favour; insomuch that his people, in gratitude for the indiscriminate protection which he afforded them, distinguished him by the appellation of *Juggot Grow*, Guardian of Mankind.—If your Majesty places any faith in any of those books by distinction called divine, you will there be instructed that God is the God of all mankind, not the God of Mahomedans alone. The Pagan and the Mussulman are equally in his presence. Distinctions of colours are of his ordination. It is He who gives existence. In your temples, to his Name, the voice is raised in prayer; in a house of images, where the bell is shaken, still He is the object of adoration. To vilify the religion and customs of other men, is to set at naught the pleasure of the Almighty. When we deface a picture, we naturally incur the resentment of the painter; and justly has the poet said, ‘Presume not to arraign or to scrutinize the various works of Power Divine.’” For this valuable communication we are indebted to Mr Orme. Fragments, notes, p. xcvi. I have been assured by a gentleman who has read this letter in the original, that the translation is not only faithful but elegant.

NOTE LXIV: p. 226.

I HAVE not attempted a description of any subterraneous excavations but those of Elephanta, because none of them have been so often visited, or so carefully inspected. In several parts of India there are, however, stupendous works of a similar nature. The extent and magnificence

of the excavations in the island of Salsette are such, that the artist employed by Governor Boon to make drawings of them asserted, that it would require the labour of forty thousand men for forty years to finish them. *Archæologia*, vol. vii. p. 336. Loose as this mode of estimation may be, it conveys an idea of the impression which the view of them made upon his mind. The Pagodas of Ellore, eighteen miles from Aurungabad, are likewise hewn out of the solid rock; and if they do not equal those of Elephanta and Salsette in magnitude, they surpass them far in their extent and number. M. Thevenot, who first gave any description of these singular mansions, asserts, that for above two leagues all around the mountain nothing is to be seen but Pagodas. *Voy.* part iii. chap. 44. They were examined at greater leisure and with more attention by M. Anquetil du Perron; but as his long description of them is not accompanied with any plan or drawing, I cannot convey a distinct idea of the whole. It is evident, however, that they are the works of a powerful people; and among the innumerable figures in sculpture with which the walls are covered, all the present objects of Hindoo worship may be distinguished. *Zendavesta. Disc. Prelim.* p. 223. There are remarkable excavations in a mountain at Mavalipuram near Sadras. This mountain is well known on the Coromandel Coast by the name of the *Seven Pagodas*. A good description of the works there, which are magnificent and of high antiquity, is given; *Asiat. Researches*, vol. i. p. 145, &c. Many other instances of similar works might be produced if it were necessary. What I have asserted, p. 225. concerning the elegance of some of the ornaments in Indian buildings, is confirmed by Colonel Call, chief engineer at Madras, who urges this as a proof of the early and high civilization of the Indians. "It may safely be pronounced," says he, "that no part of the world has more marks of antiquity,

for arts, sciences, and civilization, than the Peninsula of India, from the Ganges to Cape Comorin. I think the carvings on some of the Pagodas and Choultries, as well as the grandeur of the work, exceeds any thing executed now-a-days, not only for the delicacy of the chisel, but the expense or construction, considering, in many instances, to what distances the component parts were carried, and to what heights raised." Philosophical Transactions, vol. lxii. p. 354. I am happy to find my idea, that the first temples erected by the Hindoos were formed upon the model of those caverns in which the rites of religion were originally celebrated, confirmed and more fully unfolded by Mr Hodges. In a short dissertation on the primitive standard, or prototype of the different styles of architecture, viz. the Egyptian, Hindoo, Moorish, Gothic, and Chinese, he has examined and illustrated that curious subject with great ingenuity. Travels in India, p. 63—77.

## NOTE LXV. p. 230.

INDIA, says Strabo, produces a variety of substances which dye the most admirable colours. That the *Indicum* which produced the beautiful blue colour, is the same with the *Indigo* of the moderns, we may conclude, not only from the resemblance of the name, and the similarity of the effects, but from the description given by Pliny in the passage which I have quoted in the text. He knew that it was a preparation of a vegetable substance, though he was ill informed both concerning the plant itself, and the process by which it was fitted for use; which will not appear surprising, when we recollect the account formerly given of the strange ignorance of the ancients with respect to the origin and preparation of silk. From the colour of Indigo, in the form in which it was imported, it is

denominated by some authors, *Atramentum Indicum*, and *Indicum Nigrum*, Salmas. Exercit. p. 180; and is mentioned under the last of these names, among the articles of importation from India. Peripl. Mar. Erythr. p. 22. The colour of the modern Indigo, when undiluted, resembles that of the ancient Indicum, being so intensely coloured as to appear black. Delaval's Experm. Inquiry into the Cause of the Changes of Colours, Pref. p. xxiii. Indigo is the principal dye-stuff used by the natives of Sumatra, and is much cultivated in that island; but the mode of preparing it differs from that which is common among the people of Indostan. Marsden, Hist. of Sumatra, p. 77. There has been lately found in the Circar of Rajamundry a new species of Indigo, denominated the *Tree Indigo*, which, as it grows wild and in great abundance, promises to be a discovery of considerable use. Oriental Repertory, No. I. p. 39, &c. The *Gum-lacca*, used in dyeing a red colour, was likewise known to the ancients, and by the same name which it now bears. Salmas. Exercit. p. 810. This valuable substance, of such extensive utility in painting, dyeing, japanning, varnishing, and in the manufacture of sealing-wax, is the production of a very minute insect. These insects fix themselves upon the succulent extremities of the branches of certain trees, and are soon glued to the place on which they settle, by a thick pellucid liquid which exudes from their bodies, the gradual accumulation of which forms a complete cell for each insect, which is the tomb of the parent, and the birth-place of its offspring. This glutinous substance, with which the branches of trees are entirely covered, is the Gum-lacca. An account of its formation, nature, and use, is given in the Philos. Trans. vol. lxxi. part ii. p. 374. in a concise, accurate, and satisfactory manner. Some curious observations upon this insect are published by Mr Roxburgh, who cultivates the study of Natural History in India

with great assiduity and success. Asiatic Researches, vol. iii. p. 361. It is remarkable that Ctesias seems to have received an account tolerably distinct of the insect by which the Gum-lacca is produced, and celebrates the beauty of the colour which it dyes. Excerpta ex Indic. ad calc. Herodot. edit. Wesseling. p. 830. *Indian Dyers* was the ancient name of those who dyed either the fine blue or the fine red, which points out the country whence the materials they used were brought. Salmas. ib. p. 810. From their dyeing cotton stuffs with different colours, it is evident that the ancient Indians must have made some considerable proficiency in chemical knowledge. Pliny, lib. xxxv. c. ii. § 42. gives an account of this art as far as it was known anciently. It is precisely the same with that now practised in calico printing.

## NOTE LXVI. p. 240.

As Sanskreet literature is altogether a new acquisition to Europe, Baghvat-Geeta, the first translation from that language, having been published so late as A. D. 1785, it is intimately connected with the subject of my inquiries, and may afford entertainment to some of my readers, after having reviewed in the text, with a greater degree of critical attention, the two Sanskreet works most worthy of notice, to give here a succinct account of other compositions in that tongue with which we have been made acquainted. The extensive use of the Sanskreet language is a circumstance which merits particular attention. "The grand source of Indian literature," (says Mr Halhed, the first Englishman who acquired the knowledge of Sanskreet,) "the parent of almost every dialect from the Persian Gulf to the China seas, is the Sanskreet, a language of the most venerable and unfathomable antiquity; which, although at present shut up in the libraries of Brahmins, and appropriated solely to the

records of their religion, appears to have been current over most of the Oriental world; and traces of its original extent may still be discovered in almost every district of Asia. I have been often astonished to find the similitude of Sanskreet words with those of Persian and Arabic, and even of Latin and Greek; and those not in technical and metaphorical terms, which the mutation of refined arts and improved manners might have occasionally introduced, but in the ground-work of language, in monosyllables, in the names of numbers, and the appellations of such things as would be first discriminated on the immediate dawn of civilization. The resemblance which may be observed in the characters on the medals and signets of various districts of Asia, the light which they reciprocally reflect upon each other, and the general analogy which they all bear to the same grand prototype, afford another ample field for curiosity. The coins of Assam, Nepaul, Cashmeere, and many other kingdoms, are all stamped with Sanskreet characters, and mostly contain allusions to the old Sanskreet mythology. The same conformity I have observed on the impression of seals from Bootan and Thibet. A collateral inference may likewise be deduced from the peculiar arrangement of the Sanskreet alphabet, so very different from that of any other quarter of the world. This extraordinary mode of combination still exists in the greatest part of the East, from the Indus to Pegu, in dialects now apparently unconnected, and in characters completely dissimilar; and it is a forcible argument that they are all derived from the same source. Another channel of speculation presents itself in the names of persons and places, of titles and dignities, which are open to general notice, and in which, to the farthest limits of Asia, may be found manifest traces of the Sanskreet." Preface to the Grammar of the Bengal Language, p. 3. After this curious account of the Sanskreet tongue, I proceed to

enumerate the works which have been translated from it, besides the two mentioned in the text.—1. To Mr Wilkins we are indebted for *Heeto-Pades*, or *Amicable Instruction*, in a series of connected fables, interspersed with moral, prudential, and political maxims. This work is in such high esteem throughout the East, that it has been translated into every language spoken there. It did not escape the notice of the Emperor Akber, attentive to every thing that could contribute to promote useful knowledge. He directed his Vizier, Abul Fazel, to put it into a style suited to all capacities, and to illustrate the obscure passages in it, which he accordingly did, and gave it the title of, *The Criterion of Wisdom*. At length these fables made their way into Europe, and have been circulated there with additions and alterations, under the names of Pilpay and Esop. Many of the Sanskreet apologues are ingenious and beautiful, and have been copied or imitated by the fabulists of other nations. But in some of them the characters of the animals introduced are very ill sustained: To describe a tiger as extremely devout, and practising charity, and other religious duties, p. 16. or an old mouse well read in the *Neetee Sastras*, i. e. Systems of morality and policy, p. 24.; a cat reading religious books, p. 35, &c. discovers a want of taste, and an inattention to propriety. Many of the moral sayings, if considered as detached maxims, are founded upon a thorough knowledge of life and manners, and convey instruction with elegant simplicity. But the attempt of the author to form his work into a connected series of fables, and his mode of interweaving with them such a number of moral reflections in prose and in verse, renders the structure of the whole so artificial that the perusal of it becomes often unpleasant. Akber was so sensible of this, that, among other instructions, he advises his Vizier to abridge the long digressions in that work. By these strictures it is far from my in-

tention to detract in the smallest degree from the merit of Mr Wilkins. His country is much indebted to him for having opened a new source of science and taste. The celebrity of the Heeto-Pades, as well as its intrinsic merit, notwithstanding the defects which I have mentioned, justify his choice of it, as a work worthy of being made known to Europe in its original form. From reading this and his other translations, no man will refuse him the praise, to which he modestly confines his pretensions, "of having drawn a picture which we suppose to be a true likeness, although we are unacquainted with the original." Pref. p. xiv.—2. In the first number of the New Asiatic Miscellany, we have a translation of a celebrated composition in the East, known by the title of the *Five Gems*. It consists of stanzas by five poets who attended the court of Abissura, King of Bengal. Some of these stanzas are simple and elegant.—3. An ode translated from Wulli; in which that extravagance of fancy, and those far-fetched and unnatural conceits which so often disgust Europeans with the poetical compositions of the East, abound too much. The editor has not informed us to whose knowledge of the Sanskreet we are indebted for these two translations.—4. Some original grants of land, of very ancient dates, translated by Mr Wilkins. It may seem odd, that a charter or legal conveyance of property should be ranked among the literary compositions of any people. But so widely do the manners of the Hindoos differ from those of Europe, that as our lawyers multiply words and clauses, in order to render a grant complete, and to guard against every thing that may invalidate it, the *Pundits* seem to dispatch the legal part of the deed with brevity, but, in a long preamble and conclusion, make an extraordinary display of their own learning, eloquence, and powers of composition, both in prose and verse. The preamble to one of these deeds is an encomium of the monarch



who grants the land, in a bold strain of Eastern exaggeration: "When his innumerable army marched, the heavens were so filled with the dust of their feet that the birds of the air could rest upon it."—"His elephants moved like walking mountains, and the earth oppressed by their weight mouldered into dust." It concludes with denouncing vengeance against those who should venture to infringe this grant: "Riches and the life of man are as transient as drops of water upon the leaf of the lotus. Learning this truth, O man! do not attempt to deprive another of his property." Asiatic Researches, vol. i. p. 123, &c. The other grant, which appears to be still more ancient, is not less remarkable. Both were found engraved on plates of copper. *Ib.* p. 357, &c.—5. The translation of part of the Shaster, published by Colonel Dow, in the year 1768, ought perhaps to have been first mentioned. But as this translation was not made by him from the Sanskreet, but taken from the mouth of a Brahmin, who explained the Shaster in Persian, or in the vulgar language of Bengal, it will fall more properly under notice when we come to inquire into the state of science among the Hindoos, than in this place, where we are endeavouring to give some idea of their taste and composition.

## NOTE LXVII. p. 250.

As many of my readers may be unacquainted with the extravagant length of the four eras or periods of Indian chronology, it may be proper to give an account of them from Mr Halhed's Preface to the Code of Gentoo Laws, p. xxxvi.

1. THE *Suttee Jogue* (or age of purity) is said to have lasted three million two hundred thousand years; and

they hold that the life of man was extended in that age to one hundred thousand years; and that his stature was twenty-one cubits.

2. THE *Tirtah Jogue* (in which one-third of mankind was corrupted) they suppose to have consisted of two million four hundred thousand years, and that men lived to the age of ten thousand years.

3. THE *Dwapaar Jogue* (in which half of the human race became depraved) endured one million six hundred thousand years; and the life of man was then reduced to a thousand years.

4. THE *Collee Jogue* (in which all mankind are corrupted, or rather lessened, for that is the true meaning of *Collee*) is the present era, which they suppose ordained to subsist four hundred thousand years, of which near five thousand are already past; and the life of man in that period is limited to one hundred years.

IF we suppose the computation of time in the Indian chronology to be made by solar or even by lunar years, nothing can be more extravagant in itself, or more repugnant to our mode of calculating the duration of the world, founded on sacred and infallible authority. Some attempts have been made by learned men, particularly by M. Bailly, in a very ingenious dissertation on that subject, to bring the chronology of the Hindoos to accord somewhat better with that of the Old Testament; but as I could not explain the principles upon which he founds his conclusions, without entering into long and intricate discussions foreign from the subject of this Dissertation, and as I cannot assent to some of his opinions, I shall rest satisfied with referring to his *Astron. Indienne*, Disc. Prelim. p. lxxvii. and leave my readers to judge

for themselves. I am happy to observe that a memoir on the Chronology of the Hindoos will be published in the Second Volume of the Transactions of the Society of Bengal, and I hope that some learned member of that body will be able, from his acquaintance with the languages and history of the country, to throw light upon a subject which its connexion with religion and science renders extremely interesting. From one circumstance however, which merits attention, we may conclude, that the information which we have hitherto received concerning the chronology of the Hindoos is very incorrect. We have, as far as I know, only five original accounts of the different Jogues or eras of the Hindoos. The first is given by M. Roger, who received it from the Brahmins on the Coromandel Coast. According to it, the Suttee Jogue is a period of one million seven hundred and twenty-eight thousand years; the Tirtah Jogue is one million two hundred and ninety-six thousand years; the Dwapaar Jogue is eight hundred and sixty-four thousand years. The duration of the Collee Jogue he does not specify. *Porte Ouverte*, p. 179. The next is that of M. Bernier, who received it from the Brahmins of Benares. According to him, the duration of the Suttee Jogue was two million five hundred thousand years; that of the Tirtah Jogue one million two hundred thousand years; that of the Dwapaar Jogue is eight hundred and sixty-four thousand years. Concerning the period of the Collee Jogue, he likewise is silent. *Voyages*, tom. ii. p. 160. The third is that of Colonel Dow, according to which the Suttee Jogue is a period of fourteen million of years; the Tirtah Jogue one million eighty thousand; the Dwapaar Jogue seventy-two thousand, and the Collee Jogue thirty-six thousand years. *Hist. of Hindost.* vol. i. p. 2. The fourth account is that of M. de Gentil, who received it from the Brahmins of the Coromandel Coast; and as his information was

acquired in the same part of India, and derived from the same source with that of M. Roger, it agrees with his in every particular. *Mem. de l'Academ. des Sciences pour 1772, tom. ii. part i. p. 176.* The fifth is the account of Mr Halhed, which I have already given. From this discrepancy, not only of the total numbers, but of many of the articles in the different accounts, it is manifest that our information concerning Indian chronology is hitherto as uncertain as the whole system of it is wild and fabulous. To me it appears highly probable, that when we understand more thoroughly the principles upon which the factitious eras or Jogues of the Hindoos have been formed, that we may be more able to reconcile their chronology to the true mode of computing time, founded on the authority of the Old Testament; and may likewise find reason to conclude, that the account given by their astronomers of the situation of the heavenly bodies at the beginning of the Collee Jogue, is not established by actual observation, but the result of a retrospective calculation. Whoever undertakes to investigate farther the chronology of the Hindoos, will derive great assistance from a Memoir of Mr Marsden on that subject, in which he has explained the nature of their year and the several eras in use among them, with much ingenuity and precision. *Philos. Transact. vol. lxxx. part ii. p. 560.*

NOTE LXVIII. p. 259.

IN the public buildings of India, we find proofs and monuments of the proficiency of the Brahmins in science, particularly of their attention to astronomical observations. Their religion enjoins, that the four sides of a Pagoda should face the four cardinal points. In order to execute this with accuracy, they take a method, de-

scribed by M. le Gentil, which discovers a considerable degree of science. He carefully examined the position of one of their Pagodas, and found it to be perfectly exact. *Voy. tom. i. p. 133.* As some of their Pagodas are very ancient, they must have early attained such a portion of knowledge as was requisite for placing them properly. On the ceilings of Choultries, and other ancient edifices, the twelve signs of the zodiac are often delineated; and from their resemblance to those which are now universally used, it is highly probable that the knowledge of these arbitrary symbols was derived from the East. Colonel Call has published a drawing of the signs of the zodiac, which he found on the ceiling of a Choultry at Verdapettah, in the Madura country. *Phil. Trans. vol. lxii. p. 353.* I have a drawing of them in my possession, differing from his in some of the figures, but I cannot say in what particular place it was found. Sir Robert Barker describes an observatory at Benares, which he visited A. D. 1772. In it he found instruments for astronomical observation, of very large dimensions, and constructed with great skill and ingenuity. Of all these he has published drawings. *Phil. Trans. vol. lxxii. p. 598.* According to traditionary account, this observatory was built by the Emperor Akber. The view which Sir Robert took of it was an hasty one. It merits a more attentive inspection, in order to determine whether it was constructed by Akber, or erected in some more early period. Sir Robert intimates, that none but Brahmins who understood the Sanskreet, and could consult the astronomical tables written in that language, were capable of calculating eclipses. P. Tiessenthaler describes, in a very cursory manner, two observatories furnished with instruments of extraordinary magnitude, at Jepour and Ougcin, in the country of Malwa. *Bernouilli, tom. i. p. 316. 347.* But these are modern structures.

SINCE the first edition of the Historical Disquisition was published, the Souriak Seddantam, or, according to a more correct orthography, the Súrya Siddhánta, on the principles of which I had observed that all the Indian astronomy is founded, has been discovered at Benares by Sir Robert Chambers. He immediately communicated this valuable work to Samuel Davis, Esq. who has favoured the world with a translation of several considerable extracts from it.

THE Súrya Siddhánta is composed in the Sanskreet language, and professes to be a divine revelation, (as Abul Fazel had related, Ayeen Akbery, III. p. 8.), communicated to mankind more than two millions of years ago, towards the close of the Suty or Satya Jogue, the first of the four fabulous ages into which the Hindoo Mythologists divide the period during which they suppose the world to have existed. But when this accompaniment of fiction and extravagance is removed, there is left behind a very rational and elaborate system of astronomical calculation. From this Mr Davis has selected what relates to the calculation of eclipses, and has illustrated it with great ingenuity. The manner in which that subject is treated, has so close an affinity to the methods formerly brought from India, and of which I have given some account, as to confirm strongly the opinion that the Súrya Siddhánta is the source from which all the others are derived. How far the real date of this work may be ascertained from the rules and tables which it contains, will be more clearly established when a translation of the whole is published. In the mean time it is evident, that what is already known with respect to these rules and tables, is extremely favourable to the hypothesis which ascribes a very high antiquity to the astronomy of the Brahmins.

THE circumstance, perhaps, most worthy of attention, in the Extracts now referred to, is the system of Trigonometry included in the Astronomical Rules of the *Súrya Siddhánta*. *Asiat. Research.* ii. p. 245. 249. It may be shewn that this system is founded on certain geometrical theorems, which though modern mathematicians be well acquainted with, were certainly unknown to Ptolemy and the Greek geometers.

IT is with pleasure, too, we observe, that Mr Davis has in his possession several other ancient books of Hindoo astronomy, and that there is reason to expect from him a translation of the whole *Súrya Siddhánta*.

IT must be added, that we also learn from the second volume of the *Asiatic Researches*, that some vestiges of algebraical calculation have been discovered among the Brahmins; particularly rules for the solution of certain arithmetical questions, with which it would seem that nothing but algebra could have furnished them. *Asiat. Research.* ii. p. 468. note, 487. 495.

MY friend, Mr Professor Playfair, has examined that Extract from the *Súrya Siddhánta* which gives an account of the ancient Hindoo System of Trigonometry, and has discovered the principles on which it is founded. It is with pleasure I announce, that the result of this examination will be communicated soon to the Public, and will afford an additional proof of the extraordinary progress which the natives of India had early made in the most abstruse sciences.