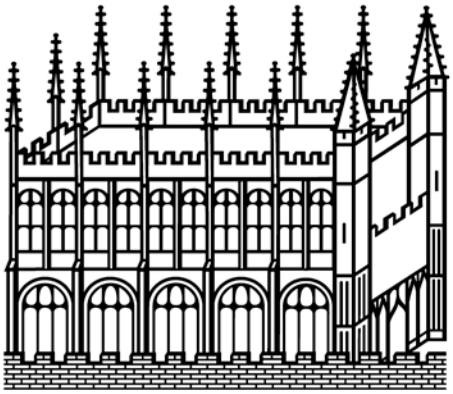

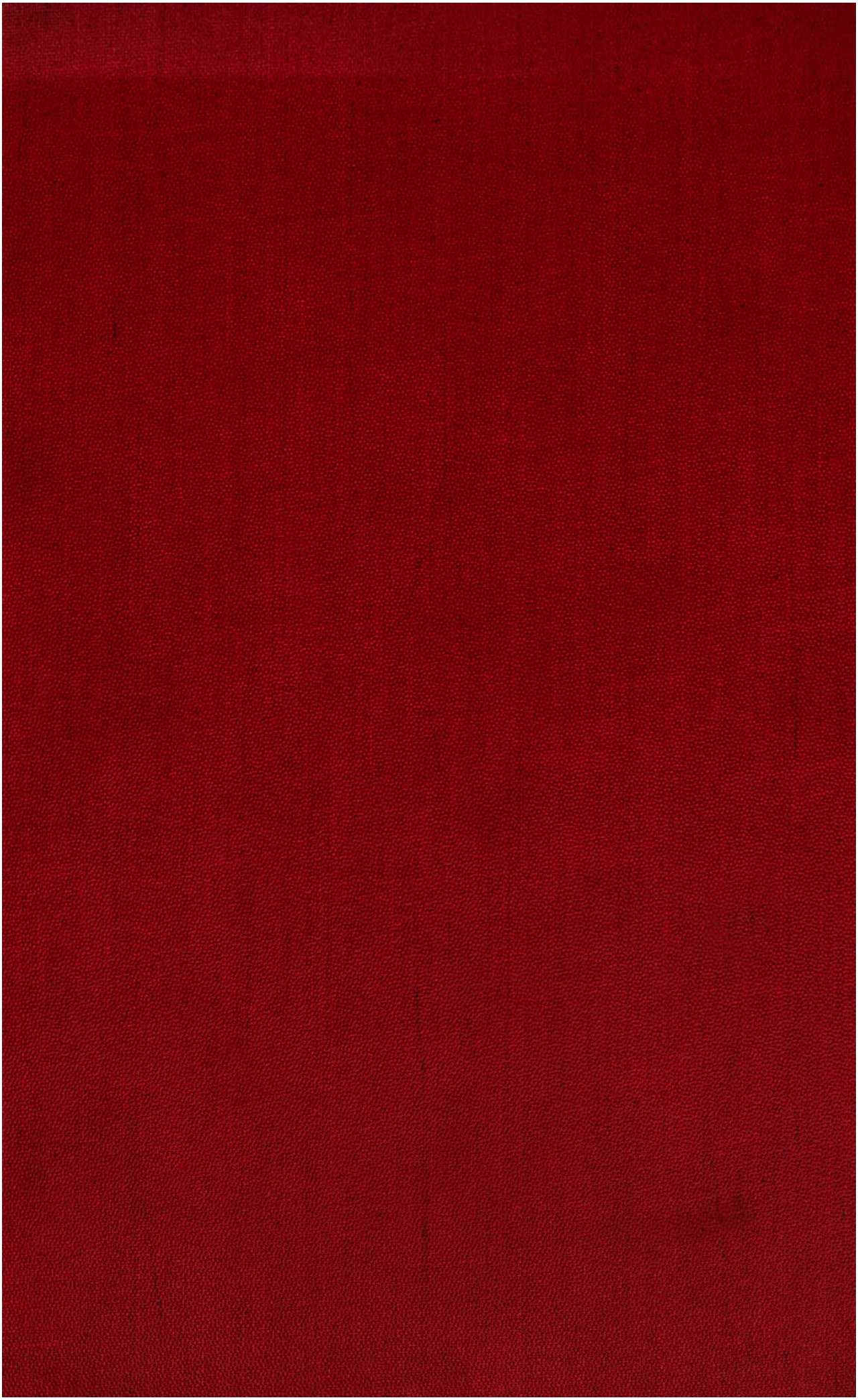

NOTES

ON THE

INDICA OF CTESIAS.

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NOTES

ON THE

INDICA OF CTESIAS.

READ TO THE ASHMOLEAN SOCIETY, FEB. 5, 1836.

IN offering to the Ashmolean Society some observations on the statements concerning India which were compiled four centuries before our era by Ctesias, the Greek physician of Artaxerxes Mnemon, it must be unnecessary to preface my remarks by any account of that author or his writings. These are subjects with which all the members are no doubt familiar; and they will also be well aware how low a character for credibility Ctesias has borne, not only with modern writers, but with those of his own country, from what may be considered almost his own age to much later periods of Greek literature. Aristotle declares he is unworthy of belief, Plutarch holds him as a mere fabler, and even the author of the Life of Apollonius treats him as "a liar of the first magnitude."

Ctesias, however, declares that he wrote nothing but what he had seen or heard; and, notwithstanding the unfavourable sentiments to which I have adverted, and in despite of Lucian's emendation of the declaration of Ctesias, making him assert that

he had written what he had " neither seen nor " heard," I confess I am disposed to believe his averment. What he saw amounts to very little, and to nothing extraordinary. What he heard is much more copious, and more wonderful; but it was very possibly communicated to him in perfect good faith by persons who had visited the countries he speaks of, but who were persons of more credulity than observation. That Ctesias has repeated their marvellous narrations, may argue ignorance and credulity in him as well as in his informants, but it does not necessarily imply deliberate falsehood or mendacious invention.

Although, however, we may acquit Ctesias, and even those who imparted to him the strange stories he has repeated, of any settled purpose to deceive, yet it seems unaccountable how such impossibilities as he has recorded could have originated, how they could have been put forth in a country so near as Persia to the India to which they were ascribed, and with which there must have been frequent intercourse, both commercial and political; and how a man of the talents of Ctesias, a scholar and a physician, and imbued with a spirit of intelligent curiosity, could have been a party to their dissemination. To determine these points satisfactorily, it would be necessary to consider the state of society at the period at which Ctesias wrote, and the progress which the Persians and Greeks had made in physical science; but this would lead us away from the object of the present inquiry, which is restricted to the specific statements that Ctesias has transmitted; and it is sufficient for our purpose to ascertain whether they have been advanced wholly with-

out foundation, or whether we may not discover in them some glimpses of the truth. That this has not already been accomplished in a satisfactory manner, need not excite any surprise; for the inquiry demands a familiar acquaintance with the varied subjects of the narrative, and with the country to which they belong; an acquaintance not within the reach of the earlier illustrators of our author, and even now but partially within our own. The India of Ctesias is but to a limited extent the India of our day. Except in a few instances, the Indus is to the southward the boundary of his information, and the regions to which he refers are those to the northward, along the upper course of the Indus, amongst the Hindu Koh and Karakoram mountains, Balkh, Bokhara, and the banks of the Oxus to the west; and to the east, Tibet, Badakhshan, Kashgar, and central Tartary to the confines of China. These countries have been hitherto but little accessible to Europeans, and we are too imperfectly acquainted with them to be able to avail ourselves fully of the means which they may possibly afford, successfully to elucidate the Indica of Ctesias.

Incomplete, however, as our materials may yet be, they are more ample than they have hitherto been. I have therefore thought it might be worth while to apply them to the illustration of the text of Ctesias, and that this Society might take some interest in the result, not only as calculated to throw some light upon the work of a classical authority, but as affording them an opportunity of contemplating some circumstances relating to India which may not heretofore have fallen under their notice.

The accounts of Ctesias, as they exist in the fragments preserved by Photius, or in the extracts from classical writers, collected by the industry and learning of modern editors and annotators, are put together in a most desultory manner, without any regard to subject or connexion. As it would be painful to follow such an unsystematic series, I have attempted to classify the different sections, and purpose to comment upon them under two principal heads: the first embracing all that Ctesias has stated regarding the country itself, and the people by whom it was inhabited; and the second comprehending his descriptions of the products of nature in the animal, vegetable, and mineral kingdoms.

INDIA AND ITS INHABITANTS.

CAP. I. Strabo XV. "India," according to Ctesias, "was as extensive "as the rest of Asia; the people as numerous as all "the rest of mankind: and there was no nation be-"yond them, or more to the east."

The correctness of these statements is to be estimated with reference to the prevailing notions of the extent and population of the globe in the days of the writer. At a much later period, when combating the exaggerations of Onesicritus, Nearchus, Deimachus, and Megasthenes, as well as those of Ctesias, Strabo concurred with Eratosthenes in extending the eastern limits of India, to the ocean [a], and assigning it a breadth of 16,000 stadia from north to south, and a length of 19,000 from east to west, whilst the whole breadth of the habitable world was not above 30,000, and the whole length 70,000 stadia, making India therefore more than half the width, and nearly

[a] Strabo, lib. i. xv.

one third of the length of the habitable globe. Agreeably to the notions of the Hindus, India would be still more extensive; for Aryavartta, the holy land, the country of the Hindus, is considered, in the Puranas, as bounded both upon the east and the west by the sea. The latter limit would carry India to the Mediterranean; and traces of this notion, although no longer entertained when Ctesias lived, may be discovered in classical as well as Indian authorities; for there were Indi in Colchis, in Mesopotamia, on the Tigris, and even in Thrace, according to ancient writers quoted by Bryant[b]. He therefore concludes that Chaldea was the parent country of the Hindus. "The arts and sciences," he says, "imported into India came from the Cuthites of "Chaldea:" and again, "One of the most consider-"able colonies that went from Babylonia was that "of the Indi, or Sindi, who settled between the "Indus and the Ganges: a large body of them "passed to the north, and thence extended them-"selves eastward quite to the ocean[c]." And this theory has recently received the countenance of an eminent oriental scholar, Col. Vans Kennedy, who traces the origin of the Sanscrit language to the country about Babylon[d]. It seems probable therefore, that ancient tradition, as well as imperfect geographical knowledge, had diffused amongst the Greeks indistinct notions of the vast extent of the Indian world, at a period prior to the more scientific cultivation of geography by the Alexandrian school,

[b] Analysis of Ancient Mythology, vol. iv. p. 245, 252.

[c] Ibid. vol. v. p. 226.

[d] Researches into the Origin and Affinity of the principal Languages of Asia and Europe, p. 221.

which would justify the statements of our author. Of the western limits of India, however, the times of Ctesias were able to form some tolerably correct idea; but to the east the boundary was still unknown; and even in the days of Pausanias, the country of the Seres, or China was supposed to be an island in the Erythræan sea[e], whilst Strabo[f] makes the prolongation of the chain of Taurus or the Himalaya, extending to the Eastern sea, the boundary of India. This sea, it is true, M. Gosselin[g] supposes to have been the bay of Bengal; but this is rather incompatible with his notion, that the Thinæ of Strabo, who occupied the extreme boundary, were the people of the Tenasserim coast, as that would then be the boundary of the ocean, instead of being bounded by it. Nor can it be supposed that the Indians themselves intended by their Eastern ocean the bay of Bengal; and we must therefore conclude, that it meant the China sea, or sea of Japan, and that China was included in the denomination, India, although its precise situation and extent may not have been accurately known.

Without, however, comprising China within the limits of India, there is no doubt that the latter country was more extensive even before the invasion of Alexander than it was subsequently, including Ariana, Arachosia, Margiana, Bactria, and even Sogdiana, and part of the Sacha regio, which were separated from it by the Macedonian conquests. In later times, the pressure of the Mongol and Turk tribes on the north, and the advance of the Mohammedans from the west, have still further contracted its boun-

[e] Bryant, v. 227. [f] Lib. xv.

[g] Géographie des Grecs. Mémoires de l'Académie, t. xlix.

daries, and detached Kandahar and Kabul from India, although they, as well as Bahlika, or Balkh, are enumerated amongst Indian countries in the Puranas; and the Sakas, the Σακαι, or Sacæ, are in the same works, and in the laws of Menu[h], described as Indians originally of the Kshetriya or military tribe, but who were deprived of caste by Sagara, a king of India, as a punishment for taking part in a successful insurrection against his father[i]. We may still discover in those countries names of places and of people, and traces of manners, evidently of Indian origin.

At the same time that India was more extensive in ancient than in modern times, it seems to have been more populous, as far it was known. Besides the numerous armies brought into the field against Alexander, by princes ruling over very limited territories, it is said by Strabo that the Macedonians reduced 5000 considerable cities[k], and that Eucratides the Bactrian prince, reigned over 1000 in a region where scarcely a dozen places, that deserve the name of towns, are now to be met with, and where there are not above three or four cities, as Cabul, Peshawar, Lahore and Amritsar, that are of any consideration. The depopulation of Afghanistan and the Punjab is in a great degree owing to the state of anarchy in which they were involved upon the downfall of the Mogul monarchy, and in which the former at least is still plunged, whilst in the latter it has been only recently suspended by the talents of Ranjit Sinh, and is likely to recur upon his death. Similar causes have very much reduced the population of very extensive portions of India in

[h] Institutes of Menu, x. 43, 44.

[i] Vishnu Purána, b. 4. c. 3.

[k] Lib. xv.

other directions, and its surface is not without a due proportion of tracts of desert and wilderness, mountain and waste, where nature is inexorably opposed to the multiplication of human beings. Nevertheless, the average population of the whole country is still considerable. The latest accounts, and which, though necessarily imperfect, are best entitled to confidence, estimate the superficial area of India at above a million of square miles, with a population of 120 millions, or 120 to each square mile [l]; an average exceeding that of England and Wales a century ago. Where circumstances are favourable to increase, the population of India presents a ratio of the highest magnitude, and in the province of Burdwan is 600 to a square mile [m], although there is not a single town of any note in the district. Although therefore the amount assigned to the population of India by our author may not have been founded on very good authority, it was not very extravagant with reference to the population of those countries which formed the ancient world.

The only river of importance with which the Persians were likely to have been well acquainted was the Indus, and it does not appear that their know-
I. ledge of it was very correct. Ctesias says it was 40 stadia broad in its narrowest, and 200 in its widest part. In citing the same passage, however, Arrian reads 100 stadia for the greatest breadth [n].

It is only very recently that we have become acquainted accurately with the course and extent of

[l] Hamilton, Description of Hindostan; Journal of the Asiatic Society, Calcutta; vol. ii. 488.

[m] Asiatic Researches; xii. 551.

[n] Arrian, lib. v. de Exped. Alex.

the Indus, by the travels and surveys of Lieut. Burnes [o], and have acquired the right as well as the ability to question the measurements of our author. At Attok, where the river is most usually crossed now, as it was in the days of the Macedonians, the breadth is but about 260 yards, in the month of June, when it is fullest; in March, it is not above 120. The greater of these two is very inferior to the 40 stadia of Ctesias, even if we were to adopt the proportion assigned to the stadium of this period by M. Gosselin; for at the rate of 1100 stadia to a degree of latitude, we have about 16 stadia to a mile, and consequently 40 stadia are equivalent to about $2\frac{1}{2}$ miles. If we adhere, however, to the Olympic stade, it is above four miles and a half. At the same time we may make some excuse for the Greek writer, when we find a credible English traveller, Mr. Forster [p], who actually crossed the Indus above Attok, asserting that it was from three quarters of a mile to a mile in breadth, where not interrupted by islands. Some way below Attok, Messrs. Moorcroft and Trebeck found the river divided into two branches by a considerable island, and the nearest branch, although not above 100 yards or so in breadth, ran in a sandy bed that was 600 yards broad: when the whole bed is filled, therefore, the expanse of the river must be here at least half a mile. Even at Tatta, however, only 100 miles from the sea, the river is not above 700 yards across, and the greatest width which it ever attains in a single channel is not above 1000. There

[o] Travels into Bokhara, &c.; Voyage up the Indus, and Memoir.

[p] Journey over land from Bengal to England in 1782, &c.

is one exception in the Koree, the most eastern limit of the Delta of the Indus, which below Luckput, suddenly opens like a funnel to a breadth of seven miles, and increases until one bank is no longer discernible from the opposite one. It is not likely, however, that this branch was known to Ctesias, and his measurement cannot apply to the whole of the Delta, for that, according to Arrian, occupied 1800 stadia.

V. The Indian sea, it is said, is not less extensive than the Grecian sea. The Erythræan sea in the extent attributed to it subsequently to the days of Ctesias, appears to have comprised, along with the Red sea, that part of the Indian ocean between the straits of Babelmandel and the Malabar coast. The Indian sea of Ctesias may have been only the part between the Persian gulf and the coast of Malabar, and in that case might admit of some comparison with the Ægean. The water, he adds, is so warm for the depth of four fingers, that the fish cannot come to the surface. From experiments made by Messrs. G. and J. Prinsep, it appears that the mean temperature of the sea in the bay of Bengal exceeds that of the Atlantic, being in August, when it is probably at its highest, 81° 75'[q]; a temperature not sufficiently high to boil fish.

I. Of the climate of India it is said that "there is
" no rain, and that the lands are watered by the in-
VIII. " undations of the rivers; that there is neither thun-
" der nor lightning, but frequent gales and hurri-
" canes. The heat is so great, that in summer many
" are suffocated by it, and the sun seems to be twice
" as large as in other parts of the world. The rising

[q] As. Res. xv. App. xvii.

" sun diffuses coolness, and for thirty-five days in the " year, at a certain place which is sacred to the sun " and moon, situated in an almost inaccessible tract, " at a distance of fifteen days' journey from the moun- " tains that yield the sardonyx, the sun restrains his " rays on purpose that pilgrims coming to an annual " festival held there may not be burnt alive."

In these accounts there is more of error than of truth, but they are not wholly without foundation. The countries along the Indus, although not absolutely without storms and rain, are especially subject to strong and dry gusts of wind, blowing up the sandy soil into hills, and the fertility of many parts of India depends much more upon irrigation and inundations than upon rain. A tract of between four and five hundred miles in length, and about two hundred in breadth, on the east of the valley of the Indus, is known to the Hindus as the *maru desa*[r], the dry country or desert; being for the most part an arid waste, thinly sprinkled with spots of cultivation, the miserable inhabitants of which, according to Col. Tod[s], calculate upon a partial famine every third year, and suffer occasionally under such an infliction three or four years consecutively. Similar sandy and desert tracts abound more to the north and north-west, dividing Bokhara from the Oxus and from the Caspian, and compared with which the Indian deserts of Jeselmer and Parkur sink into insignificance[t]. Even in more favoured tracts, or in the cultivated portions of the Punjab, Balkh, and Bokhara[u], productiveness depends more upon the supply of water from rivers

[r] Tod's Annals and Antiquities of Rajasthan, vol. ii. 289.
[s] Page 327. [t] Burnes, ii. 11. [u] Burnes, ii. 158.

and canals than from rain. Although it rains in the spring in Bokhara, yet the climate is arid, and the country would be uninhabitable, were it not for its rivers. In Shehr Sabz, where the canals cease, a sterile desert succeeds, and in Balkh the canals intersect the whole country.

With regard to the size of the sun, it is only said that it seems to be double its ordinary size; and it would have required good eyes to have accurately measured its dimensions in an Indian sky. It may however be observed, that in the regions of the East the minor planets shine at the dry season with great brilliance, in consequence of the clearness of the atmosphere, and may be thought to look larger and nearer to the earth than in more western climes. It is also true, that in those parts of India where the hot winds blow, the coolest hours of the twenty-four are those immediately preceding and following sunrise. It is much cooler then, for a brief period, than at midnight. The annual intermission of the sun's heat rather exceeds the period which Ctesias has assigned to it: and whatever may be thought of the cause to which it is ascribed, there are various places in India, sacred to both the sun and the moon, which were in former times objects of pilgrimage, although not so at present. Several such places are mentioned in the lists of Tirthas, or holy shrines, some of which are evidently situated in the north-west of India, although the situation is not distinctly specified. Amongst others in the Mahábhárata[y], we have the "abode of Aditya of accu-" mulated radiance, renowned in the three worlds,

y Mahábhárata, Vana Parvan, vol. i. p. 529.

" where he who bathes and worships the sun se-
" cures for himself and his family admission to the
" solar sphere;" and adjacent to it, "the holy shrine
" of Soma (the moon), bathing and worshipping at
" which elevates most assuredly a man to the moon."
Although, however, there is no longer any shrine dedicated to the sun, nor any worship addressed particularly to any of the planets, yet it is admitted that all Sundays are sacred to the sun, as the name in Sanscrit, Aditya vára (आदित्यवार), as well as in other languages, imports; and that the Sundays in the month of Mágha (January) are so in an especial manner. The sun's entrance into the sign Capricornus, the Makara Sankranti, the winter solstice, is also still a festival; and people go to different holy places, as the mouth of the Ganges, to bathe and worship. It is clear, therefore, that in the passage under remark allusion is made to a season, and to a form of worship, which no doubt was popular in ancient times, and which is still, to a certain extent, observed by the Hindus.

Some of the most marvellous narrations of Ctesias relate to races of people by whom he says India is inhabited; yet even in them there appears to be a slight tincture of truth, or at least some foundation for the strange details that are given.

" The people," he says, " are black by nature, not IX.
" by the action of the sun. A few amongst them are
" very fair (λευκοτάτοι):" and he mentions having seen two women and five men of such a complexion. There are Albinos in every part of India, the whole of whose skin is, as Dr. Ainslie[z] describes it, like that of a dead European who has not been much

[z] Materia Medica of Hindostan. Madras, p. 300.

exposed to the sun. And Dubois[a] observes, that it is no uncommon thing to meet with a class of individuals much whiter than Europeans: they have light hair and weak eyes, but can see well in the dark. It might have been to some such objects that Ctesias refers: but if that was not the case, it is very possible that he might have met with Indians, whom, as contrasted with the swarthy complexion of the Persians, and of the Greeks themselves, he might have considered fair. Many of the people of the west and north of India, and of Turkestan, are not darker than the nations of the south of Europe, with a warmth of tint and a ruddiness of complexion that is not always found amongst the latter.

XIV. Of the manners and customs of the Indians, their justice, loyalty, and contempt of death, we have only the titles of the chapters. Devotedness to their employers and contempt of death are still their characteristics; and some remarkable instances of both have very lately occurred. The kings of the Indians, according to him, are not allowed to be intoxicated[b]. And drinking is one of the vices which Manu enjoins a king most carefully to shun: "With "extreme care let him shun eighteen vices; ten "proceeding from love of pleasure, eight springing "from wrath, and all ending in misery. Drinking, "dicing, women, and hunting, let a king consider "as the four most pernicious of those vices which "love of pleasure occasions[c]."

[a] Description of the People of India, by the Abbé Dubois, p. 199.

[b] Apud Athenæum, lib. x.

[c] Manu, vii. v. 45—50. Sir Wm. Jones's translation.

" None of the Indians," he says, "ever suffer head- XV.
" ache or tooth-ache, or maladies of the eyes, or have
" pimples about the mouth. They live to the age of
" 120 or 130, and some even to 200."

The simple diet of the people of India preserves them very generally from affections connected with disorders of the stomach; and they are remarkable for good teeth. Diseases of the eyes, however, are far from uncommon; and the duration of life is greatly exaggerated. Longevity, however, in the natives of the north-western provinces, is not rare; and the standard authorities of the Hindus regard a century as the natural boundary of human life; after which, voluntary death is not only excusable, but becoming: as it is said of king Sudraka, " Hav-
" ing attained the age of one hundred years and ten
" days, he entered the fire[d]." The prayer to be addressed by its parent to a newly-born infant also says, " Thou art born of my body, my child, to live
" for a hundred years[e]."

We next come to races of a different description, but who, amidst the cloud of fable which invests them, are very probably of Indian origin, either through the medium of fact or fiction.

" In central India," it is asserted, " a black people XI.
" of pigmies reside, speaking the same language as
" the other Indians, but of dwarfish stature, some of
" them being not above a cubit and a half, and the
" tallest not exceeding two cubits in stature. The
" hair of their heads descends below their knees, and
" their beards are longer than those of other men,
" so that they use no garments, as they can wrap

[d] Hindu Theatre, i. 15. [e] Bagbhatta Uttara Tantra.

" themselves up entirely in their hair. They are " flat-nosed and ill-favoured, and are distinguished " by the disproportionate size of the sexual organ, " which descends to the ancles. The king of the " Indians has 3000 of these pigmies in his service, " as they are expert archers. They are an upright " race in their conduct, and observe the same laws " as the other Indians."

The belief that a people of Lilliputians existed, appears to have been very general amongst the ancients, and was very widely disseminated before the times of Ctesias. Various situations were assigned to them, and they were supposed to inhabit Thrace, Egypt, and Ethiopia[f], as well as India. Another circumstance, as old as Homer, is not mentioned by Ctesias, their being that " small infantry warred on " by cranes," or their combats with large partridges, which Megasthenes describes, or their riding upon partridges, or upon diminutive sheep and goats to the encounter, that others speak of. In fact, therefore, Ctesias deals less in the marvellous here than other authors. That the origin of this belief is to be traced partly to the real occurrence of dwarfs, and partly to the mistaking of monkeys for men, is exceedingly probable. Domitian evidently conceived the former notion when he set dwarfs to fight, and turned in cranes upon them[g]; and the soldiers of Alexander, it is recorded, actually charged a troop of monkeys, taking them for pigmy foes[h].

[f] Iliad, b. 6. Aristot. Histor. Anim. viii. Juvenal, xiii. 167. Strabo, xv. Gerania in Thrace, an ancient city of the pigmies, Pliny, iv. 18: also viii. 2. Athen. ix.

[g] Statius, Sylv. i. 6. 57. [h] Strabo, xv.

Dr. Tyson [i] identifies the pigmy and the Chimpansè, or large African monkey, but the majority of writers lean to the opinion that the prototype of the pigmy is to be sought for in the human race. Buffon thinks it probable that the fable of the pigmies contained some truth. Aristotle believed that what was related of them was fact, not fiction; and the Abbé Banier [k] concludes that the poets by whom the story was first narrated gave it an air of improbability by their exaggerations. "En un mot," he observes, "ils ont fait les géants trop grands et les pygmées "trop petits." Accordingly, the pigmy people are considered by Olaus Magnus to be the Samoyedes and Laplanders. Some German writers have placed them in the mines of Lusatia and Thuringia, in one of which Thurneisser has asserted [l] that the dead body of a man, two feet three inches long, was actually found. The object of the Abbé Banier's dissertation is to claim for the Pechini of Ptolemy, a diminutive people of Ethiopia, the honour of being the pigmies of Homer. Buffon [m] has given an account of a people of white dwarfs in the centre of Madagascar called Quimos, or Kimos, of whom one individual, a woman of mature years, who had been seen by the narrator, measured but three feet and seven or eight inches; and he also mentions a notice of a people in America, in Tucuman, bordering upon the Patagonians, some of whom had been brought by the Spaniards to Europe, whose height was under three feet. To these may be added the Papuas, or

[i] Essay on Pigmies and Satyrs.

[k] Mémoires de l'Académie des Inscriptions, v. 101.

[l] Mémoires, &c. v. 105. [m] Histoire Naturelle, v. xi. 288.

negroes of the Eastern islands, amongst whom a stature of four feet nine inches is that of a full grown male [n]. Whatever may be the value of these testimonies in favour of the ancient notion, as it regarded pigmy races in other parts of the world, it is foreign to our purpose to consider. It only concerns us to inquire what may be met with in India likely to elucidate the history of the pigmies in that country.

Dwarfs, some of whom are not much above three feet high, are not at all rare in India, and there, as well as in Europe in the middle ages, they formed part of a great man's retinue, at least in former times. Thus in the Ratnavali, when a monkey having broke loose alarms the household, "the dwarf," it is said, "creeps into the jacket of the chamberlain [o]:" and in the Viddha Sálábhanjiká [p], where a domestic picture of a prince, his queen, and attendants is described, the dwarf and the monkey are amongst the portraits. A dwarf, indeed, plays an important part in Hindu mythology, being the character assumed by Vishnu in one of his avatáras, or descents upon earth; and in the same mythology we have a still more diminutive race, the Balakhilyas, or Balikhilyas, pigmy saints and sages not bigger than the thumb, the sons of one of the patriarchs, Kratu, to the number of 60,000, attendants upon the chariot of the sun, and drinking his beams, or seated at the foot, or hanging on the branches of the Kalpa druma, or tree of heaven, immersed in contemplative devotion, or engaged in sacrificial rites;

[n] Crawfurd. Indian Archipelago, vol. i.

[o] Hindu Theatre, 2. [p] Ibid. 2.

and " weak masters though they be," endowed with super-human faculties: they are often mentioned in the Puránas [q], and in the Mahábhárat a story is related of Indra, the king of the gods, having given them offence, in consequence of which he was nearly deposed from his high estate. The occasion is thus " related: Indra and the pigmies having been directed " by the patriarch Kasyapa to bring fuel for a sacri- " ficial fire, Indra performed his task readily, but he " was amused at beholding his companions, a num- " ber of grave, half-starved looking creatures of the " height of the thumb, labouring under the burden " of a single Palása stick, and struggling through " a pool of water collected in the impression made " by the foot of a cow. He went to their aid, and " lifted them and their load out of the puddle, but " in so doing he laughed, and they were grievously " displeased [r]."

It is not impossible, however, that some of the notions relating to the Indian pigmies might have been gathered from Indian architecture, in which it is very common to see dwarfish figures of grotesque visage and uncouth forms, and with gross exaggerations of some of their members sculptured either in relief, or as statues, representing attendants upon the divinities, dwarapalas, or door-keepers, and religious ascetics. Some of the latter also, even in their living condition, the gymnosophists of ancient, and the Sanyásis of more modern times, black, ugly, and emaciated, and having no other vesture than overgrown beards and hair, might have furnished some of the features of our author's description.

[q] Vayu Pur. c. 29. Kurma P. Vishnu P. b. iii. &c.

[r] Mahabharata. Adi Parvan. p. 53.

There is yet another and very probable source from which some of the circumstances may have originated, and the pigmies of Ctesias *in the middle of India* may have been suggested by the Bhils, Gonds, Koles, and other tribes, who inhabit the almost inaccessible hills and impenetrable forests of the different branches of the Vindhya mountains, extending across central India from Bengal and the Ganges to the gulf of Cambay and the coast of Malabar. These people average much less than the middle stature; they are of a very black complexion and uncouth appearance; they commonly go naked, or very nearly so, and have sometimes long shaggy beards and hair: they are all expert archers. The progenitor of these races is fabled in Hindu legend to have sprung from the left thigh of Vena, an impious raja, who had been put to death by certain holy sages. They then set to work to knead and rub his limbs, in order to provide a successor, and the first product, or his impersonated iniquity, was this ancestor of the barbarian denizens of the mountain and forest. After describing the proceedings of the rishis, or sages, the Bhágavata Purána continues: "Then arose a person of dwarfish stature and di-
"minutive limbs, of a complexion as black as a crow,
"with short arms and projecting jaw, stumpy feet,
"a flat nose, red eyes, and copper-coloured hair.
"He was called Nisháda, and was the ancestor of
"the inhabitants of the forest and the mountain."
The Padma Purána[s] adds, "that he was of hideous
"aspect and limited understanding, and was armed
"with a bow and arrows, and that he was the

[s] B. iv. 14.

" progenitor of the Chándálas (or outcastes) and " Nishádas (or foresters), races addicted to vicious " practices, and devoid of all law, civil or religious." The Mahábhárata has similar accounts of the population of Gondwana. Hamilton[t] remarks, " the coun- " try of the native Gonds remains for the most part " a primæval wilderness, its human inhabitants being " scarcely superior to the brutes, with which they " live intermixed." Malcolm [u] terms the Bhils " a " diminutive and wretched-looking race:" they are professed robbers and thieves, armed with bows and arrows. In 1831 some predatory incursions of the Lurka koles, on the western frontier of Bengal, rendered it necessary to send troops into their thickets, and they were found to be a short, black, ugly people, scarcely human in their appearance, but skilful archers. The hill-people of Rajamahal whom I have seen are much superior to the other mountain tribes, but few of them attain the height of five feet, and they are very black, with thick lips and flat noses. These races were much more widely spread over India in former times, especially in the central provinces, of which they appear to have been the earliest known, if not the aboriginal inhabitants. Their employment by the king of the Indians, of which Ctesias speaks, is a characteristic which they have long retained. They are introduced constantly into plays and poems as the guards and personal attendants of princes. In the Vikrama and Urvasi [v], Pururavas enters attended by a védhaka, a hunter or forester, the vedda of the penin-

[t] Description of Hindostan, 2. 6.

[u] Account of Central India. [v] Hindu Theatre, i. 260.

sula, and weddah of Ceylon; and in the Retnavali [x] the guards of the inner courts of the palace are kirátas, or woodsmen. In Col. Tod's Rajputana, the Meenas, a tribe of foresters, are described as retained in the service of the rajas of Delhi and Udayapur; and it appears that men of this tribe, attached to the palace of Jaypur, have been the chief agents in a late attack upon the British Resident, and the murder of a young civilian by whom he was accompanied. A similar policy has been adopted even by the British government, and the hill-men of Bhagalpur and the Bhils of Kandesh have been embodied as a local militia; the dwarf, if not the pigmy bow-men of the king of the Indians.

Of another race of Indians particularized by Ctesias we might reasonably despair of discovering any existing prototype; and yet, omitting what is hopelessly fabulous, it may not be impossible to conjecture an origin even for the Kalystrii, or Kuno-
XX. kephali, the dog-headed people [y]. "These are said to "inhabit the mountains that extend to the Indus to "the number of 120,000: they have the heads of "dogs, with large teeth and sharp claws, and their "only language is a sort of bark. They are said to "be very honest, and to maintain a commercial inter-"course with other Indians who understand their "meaning partly by their bark, and partly by signs. "They are clothed in the skins of wild animals, and
XXII. "feed upon their raw flesh. It is stated in another "passage, that they bake it in the sun. They follow "no occupation, but live by the chase, and rarely fail

[x] Hindu Theatre, 2.

[y] Ælian. iv. 46. Plin. vii. 2. Diod. i. 3. Philos. 217.

" of their prey, as they are sure archers, and very
" swift of foot. They rear sheep, goats, and asses,
" and they drink ewe's milk and curds. They feed
" also on the fruit of the Siptakora, which they dry
" like raisins, and send a quantity of it annually to
" the king of the Indians packed in baskets which
" they fabricate, along with a quantity of the flowers
" yielding a purple dye, of an insect whence a red
" dye is extracted, and of amber, and these are floated
" on rafts down the river. They barter the same
" articles, and swords, bows, and arrows of their own
" manufacture for bread, meal, and cotton garments.
" Their situation amongst lofty mountains makes
" them invincible: the king supplies them every fifth
" year with 300 bows and as many darts, 120 shields,
" and 50,000 swords. They have no houses, but re-
" side in caves. The men never wash any part of
" their persons, and the women only once a month,
" but both sexes smear themselves with oil thrice
" a month, wiping it off with skins. The wealthy
" wear cotton garments, but the greater number, both
" men and women, are dressed in skins, the thinnest
" procurable from which the hair has been removed.
" He is the most opulent who has most sheep. Both
" men and women have tails like dogs, but longer
" and more hairy. It is amongst these people espe-
" cially that extreme longevity is said to prevail.

" Beyond these, and nearer to the sources of the XXIV.
" river, are others who are very black, and neither
" eat corn nor drink water, but rear flocks of sheep,
" goats, and oxen, and live entirely upon their milk.
" It is said that they void no ordure, being born with-
" out any aperture for that purpose, and that the ex-
" crementitious portion of their food passes off either

" by the urine, or is ejected from the stomach by the
" emetic properties of a sweet root which they mix
" with their milk at noon and in the evening. At
" the latter season it operates as an emetic, at the
" former, it prevents the milk from curdling in the
" stomach.

XXVI. " In the mountains whence comes the Indian reed,
" there are not fewer than 30,000 people whose women
" bear but once in their lives; the children are born
" with teeth, and the hair of the head and eyebrows
" is grey at birth, but becomes black from thirty to
" sixty. These people have eight fingers on each
" hand, and as many toes on each foot. They are
" very warlike, and the king has in his service 5000
" of them as archers, besides spearmen. Their ears
" are said to be so large as to cover their shoulders
" and arms as low as the elbows.

XV. " Of the Seres, and the remoter Indians, it is said
" that they are of gigantic stature, some of them
" being thirteen cubits high. Men with tails, like
" satyrs, are also reported to exist in the interior of
" some island in the ocean.

" Another race of Indians, the Cynomolgi, are said
" by Ælian [y], on the authority of Ctesias, to rear a
" large breed of dogs, in order to protect themselves
" against the periodical incursions of wild cattle, who
" during the latter part of the summer are driven
" mad by the stings of bees and wasps. The dogs
" alone are able to keep them off, killing many of
" them, whose flesh is partly eaten by their masters.
" At other seasons these people hunt other wild ani-
" mals by the aid of their dogs, and also drink the

[y] Ælian, xvi. 31.

" milk of the latter." According to Julius Pollux, the Cynomolgi were the dogs, not their masters. Passages in Pliny[z], apparently derived from Ctesias, notice other monstrous people, or the Monosceli, who, although having but one leg, are wonderful leapers. The Skiopodæ, whose feet are so broad, that when the person lies on the ground, and elevates his leg, his foot answers the purpose of a parasol. And a third race, who have no necks, and carry their eyes in their shoulders.

In these accounts there are of course many absurdities which it would be in vain to attempt to explain, and all that can be said in behalf of Ctesias is, that he is kept in countenance by his countrymen, of whom Strabo[a] remarks, that in general those who have written concerning India are liars, especially Deimachus, Megasthenes, Onesicritus, Nearchus, and others of the same stamp. Even Herodotus is not free from incredible fictions, but Megasthenes and Deimachus seem especially to have been authorities for such marvels as men wrapped up in their ears, destitute of mouths and noses, one-eyed, long-legged, and having the fingers bent backwards, satyrs with square heads, serpents swallowing oxen, horns and all, pigmies, and gold-making ants. Amidst these extravagances, however, there are some vestiges of fact, and of the incredible parts it may be suspected that many of them have at least a local propriety and are of Indian origin, the inventions of Hindu superstition having been mistaken for truths by the credulous ignorance of the Grecian ambassadors.

[z] vii. 2. [a] Lib. ii. and xv.

All modern travellers in the countries within or to the north of the Himalayan mountains, to which the older stories seem chiefly to relate, agree in representing the people as a remarkably indolent and dirty race. The men leave to the women the labours of the field, and remain idling at home; and both sexes [b] exhibit a marked aversion to the use of water in ablutions of any kind, and substituting unctions of grease or oil. They are clothed for the most part in skins, with the hair inwards; whence perhaps the notion that it was removed. In warm weather, those who can afford it dress in cotton chintzes, manufactured in the plains, and procured by barter. They have little agriculture, and subsist, in a great measure, upon the produce of their flocks and herds, especially in the form of milk and butter. The use of tea very generally prevails; and this is perhaps the herb, rather than the root, which qualifies the milk, and prevents its coagulation, as well as occasionally relieves the stomach of its contents. The Bhotias and Tibetans exchange for cotton manufactures, and for rice and wheat, their wool, their cattle, and their dried fruits; and the intercourse with the people of the plains is carried on to a great extent by signs, as they speak languages unknown to their more southern neighbours. In the present day, they generally reside in log houses, or huts; but the mountains are in many places pierced with caves, which have apparently been the dwellings of a troglodyte population. At Bamian, for example, Lieut. Burnes describes the hill as quite honeycombed with excavations; and

[b] See the Travels, recently published, of Captains Munday, Archer, and Skinner.

states that the caves altogether form an immense city.

Even their having the appendage of a tail appears to admit of explanation, if the same costume which prevails in the present day existed in the days of Ctesias; and fashion in these regions is not entitled to the character of changeableness. Most of the hill tribes, both men and women, wear their hair plaited behind into one long tress; and this being elongated by worsted twist and tassels descends half way down the thigh, or even lower, suggesting not unnaturally the notion of a dog's tail. A remarkable illustration of the insular satyrs of our author is of modern occurrence. It is not a century since that a lieutenant of a Swedish vessel asserted of the people of the Nicobar islands, that they had tails like cats, which they moved in the same manner. Linnæus vouched for the narrator's honesty, and Lord Monboddo [c] exulted in his evidence as decisive of the question. The mystery is thus solved by Mr. Fontana, who, describing the people of the Nicobars, observes of their dress: "A long narrow cloth, made of the bark of "a tree, round their waist, *with one extremity hang-* "*ing down behind,* is all their dress [d]." Lieutenant Keoping saw the people only from the ship; and the blunder was pardonable in a person impressed probably by the previous assertions of Careri and Struys, Marco Polo and Ptolemy [e], with a belief that men with tails had a real existence.

[c] Origin of Language, part I. b. ii. c. 3; and Ancient Metaphysics, iii. 250.

[d] Asiatic Researches, iii. 151.

[e] Buffon, Hist. Natur. de l'Homme, vol. v. p. 45.

The dog's head appears to have not improbably originated in a verbal blunder. Kalystrii is given as the native name, meaning in the Indian language, according to Ctesias, κυνοκεφαλοι; and the question is, how far he or his informant have accurately written or explained the word. Some distinguished scholars and Orientalists, as Reland in his Miscellaneous Dissertations[f], and Tychsen in the Appendix to the second volume of Heeren's Historical Researches[g], have expressed an opinion, that all the foreign words which occur in Ctesias are not Indian, but Persian. That one or two are Persian may be admitted; but there is no reason to question the Indian origin of several of them: and the attempts of the writers in question to assign a Persian etymology to the greater number have been exceedingly unfortunate. The word *kalystrii* is an instance. Reland would derive it from *kalleh shikari*, كلّه شكاري, which, he says, means "caput cani-"num unde contracte Kaliskaroi scripsit Ctesias et "per incuriam librariorum Kalustrioi." But even if his gratuitous correction of the reading were admissible, his etymology is not; for *kalleh* means rather the crown of the head, than the head: and *shikari* means, *hunter*, *hunting*, any thing belonging to the chase, not a dog in particular. Tychsen proposes either *kelek-sir*, كلك سر, *wolf-headed*; or *kalus*, كالوس, *foolish*, *stupid*; in the superlative form kalusterin, كالوستريين, *very foolish*; converting *dog-head* into *block-head*. He is avowedly dissatisfied with either of these conjectures, and they

[f] Dissert. de veteri lingua Indica, i. 209.

[g] Historical Researches by Heeren, ii. 376.

are by no means satisfactory. The ingenuity of Col. Vans Kennedy[h] has supplied a much more probable origin in the Sanscrit *kála-vastri*, easily convertible into *kalustri*, as *v* and *u* are interchangeable letters. The sense of the compound, it is true, is not "having the head of a dog," but "having black "raiment;" and this would be fatal to the identification, if the interpretation of Ctesias were to be relied upon. There is, however, in favour of the affinity an argument of more weight, that Col. Vans Kennedy has not adverted to it, and by which therefore he was not previously biassed in proposing the Sanscrit compound. This is the existence of a people, inhabiting a mountainous district in the direction to which Ctesias refers, who have been known certainly for five centuries by the term in question. These are the people denominated by Mohammedan writers, and by the people surrounding them, the Siah-posh Kafirs, *the black-vestured infidels.* At the end of the 14th century[i] they provoked the wrath of Tamerlane, on his way to invade Hindustan, and were thence brought to the knowledge of the Persian historians. They are described as a brave though barbarous people, speaking a language peculiar to themselves, and occupying narrow valleys, amidst lofty and almost inaccessible mountains. Although unable to contend with the overwhelming power of the Tartar monarch, they were not reduced without difficulty and loss. At a later period the Siah-posh were said by Baber and Abulfazl to be the descendants of the Macedonians; but

[h] Calcutta Quarterly Magazine and Review, June 1827, p. 218.

[i] Rozet al Sefa.

the inquiries of Mr. Elphinstone[k], when on his embassy to Cabul, induced him to disbelieve the tradition. Lieut. Burnes also denies this descent of the Kafirs[l], although he thinks the pretensions of the chiefs of Badakhshan and the valley of the Oxus, which were first noticed by Marco Polo, better founded. Of the black-vested Kafirs he remarks, that they appear to be a most barbarous people, eaters of bears and monkeys, fighting with arrows, and scalping their enemies, circumstances quite in harmony with the character given by Ctesias of the Kalystrii. They are fairer than most Asiatics; and a Kafir boy of ten years of age, whom Lieut. Burnes met with, differed in complexion, hair, and features, from other Asiatics, and had eyes of a bluish colour, affording some authority for the white-complexioned children mentioned by Ctesias, those of a people who Pliny asserts were called by him *Pandoræ*, a genuine Sanscrit word, *Pandura* meaning *pale* or *fair*. Lieut. Burnes supposes the Siah-posh to have been the aborigines of the plains, who fled to the mountains from the advance of the Mohammedans. From information obtained by Messrs. Moorcroft and Trebeck, when in Little Tibet, it appears that the Siah-posh Kafirs are nothing more than a tribe of the people called by the Hindu geographers, both in past times and in the present day, Dáradas or Durds, दारद and who have borne that appellation from time immemorial, being the Daradræ of Ptolemy, situated at the sources of the Indus; and the Dardai of Megasthenes, as quoted by Strabo[m], who inha-

[k] Embassy to Cabul. Account of Kaferistan, 617.

[l] Travels to Bokhara, ii. 210. [m] B. xv.

bited the country of the gold-making ants. Now the sense of Dárada is *tearer*, *render*, from Dri, *to tear to pieces;* and this name, which is no doubt as old as Ctesias, may have contributed to form the canine teeth and talons of the people so called: whilst their other appellation, Kálavastri, indicating the usage which they still observe, and whence they are called by their neighbours Siah-posh, *black-vested*, that of *wearing black goat-skins*, furnished the denomination, Kalystrii, although the purport of it was inaccurately explained.

Of the other extraordinary tribes of Indians, whose existence rests either upon the authority of Ctesias or of subsequent writers, the origin may be with every appearance referred to India, being in one or two instances perhaps misrepresentations of facts, but in the greater number the assignment of a local habitation to the creations of Hindu fable. Thus, for the people with large ears, we find a class of demigods called Hastikarnas, *elephant-eared;* and large and long ears are features frequently ascribed to preternatural agents in Sanscrit fiction. For the Acephali we have the Kabandha, a headless but living trunk. One such personage is described in the Rámáyana[n] as seizing upon Rama, and his brother and wife, at the commencement of their exile: and another occurs in Ráhu, the personified descending node[o]: his head was struck off by Vishnu; but it was after he had quaffed the Amrita, or beverage of immortality; and head and body thence enjoyed a durable though divided existence. Horned satyrs appear in the Bhagavat, and Mono-

[n] Rámáyana Aranya Kánda.

[o] Vishnu Purána.

culi in the Kálíka Purana. As for a superfluity of limbs, and for monstrosity of form, there is an infinitude of such beings in the Hindu Pantheon, from the chiefs downwards to the meanest hobgoblin. Brahmá has four heads; Siva three eyes; Vishnu, in his Avatars, has the tail of a fish, the body of a tortoise, the head of a boar, the head and talons of a lion; Ganesa has the head of an elephant. Amongst the Dánavas, or children of Danu, the Titanic foes of the gods, we have one with the head of a tiger, one with the head of a goat, another has two heads, and a fourth has ears like sharp spikes [p]. Another of the wives of the patriarch Kasyapa, Khasá, is the mother of two sons, Yaksha and Rakshas; the former has two heads, four arms, four feet, enormous ears, and a proboscis like an elephant's; and the latter is a dwarf, with three heads, three feet, large ears, and disproportionate members: and these two were the progenitors of races equally monstrous. The demigods attendant upon Indra and Kuvera, the deities of heaven and of wealth, may well be termed Kinnaras and Kimpurushas, or literally *What-men, How strange a sort of beings!* for their synonymes are Aswamukha, Hayánana, and similar compounds, intimating that they have the heads of horses, from Aswa, or Haya, *a horse;* and Mukha, or ánana, *a face.* In the Bhagavat, the beings whom Indra sends to frighten Dhruva, and interrupt his austerities, have the heads of tigers, bears, and elephants, and the bodies of buffaloes, cats, and owls. And in the Kálíka Purana the train of Káma, the Hindu Cupid,

[p] Váyu Purána.

instead of the loves and graces, consists of the fiercer passions personified as beings with the heads of jackals, cats, and monkeys. Some of them have one eye, some have three, some have immense ears, some have one arm, some have many arms, some are giants, and some pigmies. The beings, too, that are supposed to live upon earth, haunting charnel houses and cemeteries, or the places where the dead are burnt, Pisáchas and Bhútas, besides being anthropophagi, are described as of gigantic stature and monstrous form; and these, and the races previously alluded to, may, either through oral description or sculptured representation, have borne the character of existing realities to superstitious and ill-informed traders and travellers.

With regard also to realities, we may perhaps trace the Monosceli to Hindu asceticism. One of the favourite exercises of a person performing tapas, or penance, is standing on one foot. This, in the legendary accounts of the austerities of various persons, who seek to compel the gods to grant them a boon, is done for a thousand years, and, in imitation of their devotion, for such period as is practicable by mere mortal sages. Representations of ascetics in this posture were probably frequent. Figures of Krishna and of Siva dancing on one leg also occur; and one of the names of the latter is Ekapád, Monoscelus. Again, notwithstanding the authentic portraits given us by learned men[q], of the umbrella footed gentry, it seems very probable, that, as Buffon has imagined, they originated in the diseased enlargement of one of the legs, the Cochin leg, as it is popu-

[q] They are engraved in Munster's Cosmographia, and Lycosthenes de Prodigiis, as pointed out to me by Professor Rigaud.

larly termed [r], but common in other parts of India besides Malabar; and which, though sometimes connected with elephantiasis, is not necessarily so. It is not unfrequently "a chronic complaint, inter- "fering in no degree with the functions of life [s]." It is not very clear what may be meant by the men with reverted fingers (οπισθυδακτυλοι), but they may perhaps be intended for the Urddhabáhus, ascetics, who hold up one arm until they cannot bring it down again, and keep their palms closed until the finger nails make their way between the metacarpal bones and appear at the back of the hand. However this may be, we can scarcely doubt that the Macrosceli, the long-legged race, were derived from a real source, as the word is little more than a translation of the Sanscrit *Tála jangha*, (तालजंघा:) people having legs like palm trees; the metaphorical denomination of a Hindu tribe which makes a conspicuous figure in the ancient history of India.

There is nothing else in Ctesias relative to the human species which is of any importance. "The In- "dians," he says, "make very good wine and cheese, "and he had tasted them." We need scarcely call his veracity in question here, whatever we may think of his taste. Cheese and wine are not manufactured in India Proper, but they are to the northward. The people of Bokhara use much cheese, according to Lieut. Burnes [t], and he also mentions the wines of Bokhara, which, he says, are unpalatable to European taste. That they were not so to Asiatic taste we have high authority; for the emperor

[r] Hist. Natur. de l'Homme, v. 64.

[s] Trans. Medical and Physical Society of Calcutta, i. 14.

[t] Travels to Bokhara, ii. 183.

Baber, who was in the early part of his life a boon companion, thus speaks of it: "In all Maweral-"nahar, there is no wine superior in spirit and "strength to that of Bokhara. When I drank "wine at Samarkand, in the days when I had my "drinking bouts, I used the wine of Bokhara[u]." Ctesias is therefore fully borne out in this particular, at least, by unexceptionable testimony.

NATURAL HISTORY OF INDIA.

We next come to our author's natural history, and first, of his accounts of the animals of India.

VII. Ælian IV. 21. Animals.

In this division of our subject, the foremost place is due to the formidable creature he describes under the denomination of Martichora, "an animal said to "have the face of a man and the bulk of a lion; to "be of a red colour, having three rows of teeth in "each jaw, with human ears but larger, and with "grey eyes; equipped with a tail above a cubit long, "pointed with a sting like that of a scorpion, and "armed with upright and transverse spines, a wound "from any one of which is fatal. When assailed by "a distant foe, the Martichora turns its tail in that "direction, and darts its spines from it like arrows "from a bow. It can cast these spines to the dis-"tance of a plethrum, and they kill any animal ex-"cept an elephant. The spines are a foot long, and "of the thickness of a slender cord. The meaning of "the martichora is *man-eater* (ανθρωποφαγος), as it "devours many of those whom it has slain; it also "preys upon animals. It fights with its talons as "well as its spines; and when any of the latter have "been shot away, others grow in their place. India

[u] Memoirs of Baber, 53.

" abounds with these animals, and they are often killed " with darts by men who hunt them on elephants."

Amidst the carnivora of the Indian forests, it would be somewhat difficult to discover the Martichora, and yet it would appear to be not altogether the product of our author's imagination. Indeed Ælian makes him assert that he had actually seen the animal, one having been sent from India as a present to the king of Persia. It may be, however, that he asserted he had seen only the representation of such an animal, which would accord with Heeren's theory of its origin[v], who describing the two sculptured figures on the east portal of the ruined buildings at Persepolis, delineated by Niebuhr, Morier, and Porter, and which have human faces, with the bodies of lions, observes, that the former characteristic convinces him that they were meant for the Martichoras of Ctesias, who in his narratives has here preserved legends current in Persia, derived from a mythological system of Oriental, Persian, or rather of Bactro-Indian origin. The elements of this mythological creation were, he adds[x], all real animals, the lion, the bull, the horse, the onager or wild ass, the rhinoceros, the ostrich, the eagle, and the scorpion, blended together in a variety of monstrous combinations, to which the fancy of the poet or the artist superadded a number of capricious ornaments. Although this may be true, yet the Persepolitan figures, being furnished with wings, and devoid of tails, can scarcely be considered as the prototypes of the Martichora, and we may still look to India for the original. Pausanias[y] thinks it is nothing more than the tiger; but although the tiger

[v] Vol. i. 154. [x] i. 152. [y] In Bœoticis.

may have contributed to its formation, yet some of the appurtenances cannot be traced to that source. The tail and its spikes seem rather to have been suggested by some imperfect reports of lizards or alligators, or still more, of the porcupine, which is well known in India, whence, it has been supposed, it was brought into Europe. It is found both in the plains and in the mountains. A belief in its power of shooting its quills, and of their deadly property, is as prevalent in India as it has been in Europe, and one of its names is Swá-vit, *dog*, or *wild beast piercer*. Others of its names are Saláká and Salya, meaning *a javelin* or *dart*. The body of the Martichora may be borrowed from a real animal, or from the Sinha, the mythological lion, on which the goddess Durgá rides, and the human face may have been a Persian embellishment, if it did not originate in some grotesque specimen of Indian sculpture. It can scarcely be doubted that Martichora, which seems to be the preferable reading, although it occurs Mantichora in Aristotle and Pliny [z], is a Persian term. Etymologists are here agreed. Reland [a] observes, "Hodie quæ mirabilis est linguæ Per-"sicæ constantia ανθρωποφαγος مرد خورا Mardi chora "appellatur a مرد *homo* et خوردن *edere*," and Tychsen [b] says Martichora is neither more nor less than the Persian Mard-khora, مردخورا, from مرد, *a man*, and خوردن *to eat*. Mardam-chora, مردم خورا also, as he observes, is a compound found in Persian writers to denote a fierce warrior. Thevenot, giving an account of some tribes in the south of India, who were accused of cannibalism, asserts that they were called Mardi khora by their neighbours. The latter

[z] Aristot. Hist. Animal. ii. c. 1 ; Pliny, viii. 21.

[a] Dissertations, vol. i. 223. [b] Heeren, ii. 377.

member of the term is in frequent use in India, in the sense of *eater*, as in the word halal-khor حلال خور, the name of a low caste, so called because they eat every thing, every thing is lawful food to them. If we admit that the Persian of the time of Ctesias was the Zend, we still preserve the affinity; for according to Du Perron's Zend vocabulary[c], the words would be mereté-khore. The same may be traced to a Sanscrit source, मर्त्य or marttya, *a mortal, a man*, and khâda खाद् *who eats*, marttya khâda; and there is no lack of anthropophagi amongst the creations of Hindu fable. The Rákshasas, Pisáchas, and Bhutas, the giants, ogres, and goblins of the Hindus, are all cannibals, as in the Bhatti, Khara and Dúshana, two Rákshasas, observe, "Day and "night we devour men, nor are we therein to "blame." The Bhágavata, describing such a being, says, "He drank the blood from the entrails, and "crunched the bones like lotus stalks;" and Mádhava, in the drama of Malati and Madhava[d], seeking to propitiate the spirits of ill, brings them raw flesh as an offering:

"Demons of ill, and disembodied spirits
"Who haunt this spot, I bring you flesh for sale—
"The flesh of man."

Men also may be condemned for a period to similar propensities; and Kalmáshapáda[e], one of the early kings of India, became a cannibal at the command of his spiritual preceptor, whom he had displeased, for a period of twelve years, during which, among others, he devoured his teacher's sons. Some such stories may have contributed the human heads to the body and talons of the real lion or tiger; and

[c] Zend avesta, vol. ii.
[d] Hindu Theatre, ii. 56.
[e] Mahábhárata, vol. i. p. 243.

the rest of the martichora have been compounded of the tail of the scorpion and the spines of the porcupine.

There was a chapter, of which the title only remains, concerning elephants who break down walls, τειχοκαταλυτων ελεφαντων. Ælian[f] adds, that they are trained to do so at the command of their princes, by applying their breasts against them. Elephants have been constantly employed in Indian warfare to force open the gates of fortified buildings, and it appears to have been a practice to exercise them against artificial ramparts or mounds. Thus in the Megha Duta, a large cloud sailing along the sky is compared to an elephant butting at a mound: III.

> ..... He beheld a cloud,
> In form some elephant, whose sportive rage
> Ramparts unequal to his might engage—

and *Vaprakrira*, literally, playing at or against a mound, is used to signify, the butting of an elephant. Some other particulars are cited from Ctesias by Ælian and Aristotle. The former states, that Ctesias relates having seen an elephant, at the command of his driver, overturn a palm-tree by a violent shock: a not improbable occurrence. The latter[g] denies the accuracy of the accounts which Ctesias has given of the procreation of these animals, and of the seminal excretion of the male becoming hardened like amber. As no other particulars are given, we cannot vindicate our author's correctness; but in the latter case it is possible that some misapprehension has occurred, and that the excretion alluded to was that which issues at certain seasons from the elephant's temples, and hardens like gum upon his cheeks; a physiological peculiarity frequently noticed by the Indian poets, as the excre-

[f] xvii. 28. [g] B. ii. c. 2.

tion is supposed, by its fragrance and sweetness, to have a strong attraction for bees, who thence infest the animal's head, as thus described in the Ritu Sanhara:

> Roars the wild elephant, inflamed with love,
> And the deep sound reverberates from above;
> His ample front like some full lotus blows,
> Where sport the bees, and fragrant moisture flows[i].

The circumstance is noticed by Strabo[k], but escaped all subsequent writers until the days of Cuvier[l]: according to him, the exudation is any thing but fragrant.

Ctesias, as Schlegel observes[m], in his history of the elephant, is the first writer who has described the employment of elephants in war; for their employment in this capacity by the Greeks was one of the consequences of Alexander's invasion. As quoted by Ælian, however, our author has exaggerated the numbers attached to the service of the king on such occasions: he makes them 100,000, a much greater establishment than Indian princes were ever known to possess. The number brought into action in India by Porus amounted to 200; but the Macedonians were terrified by the report that the king of the Gangaridæ could bring 6000 into the field. The highest of their numbers, however, leaves Ctesias chargeable with extravagance; and all that can be said in excuse is, that the exaggeration was probably Indian. According to Hindu writers, an *Akshauhini*, or full army, is formed of 109,300 foot, 65,610 horse, 21,870 chariots, and as many elephants; and in the Mahábhárata, which records the struggle for the paramount sovereignty of India between the kindred families of Kuru and Pandu, in which all the rajas of India

[i] Megha Duta, or Cloud Messenger, p. 28. n. [k] xv. 32.
[l] Ménagerie, t. i. p. 121. [m] Indische Bibliothek. vol. i. p. 2.

took part, the contending armies comprised many Akshauhinis, affording an original authority for 100,000, or even a greater number, of war-elephants being in array.

Another section treats of small monkeys having tails four cubits long. There is no want of monkeys of various species in India, but the long-tailed monkey, or Hanuman (Entellus), is not one of the smallest. III.

A chapter was devoted to Indian dogs, of whom the only particular that has been preserved is, that they were so large that they could fight with lions. That the Indian dog was highly prized by the Persians before the time of Ctesias, we know from Herodotus, as the animal was an article of import, and large packs were kept by the Persian king and nobles[n]. As these were dogs for the chase, they could not have been of the species of the wild dog of India; for this is an animal which it has been found impossible to tame. The Indian dog of the Persians must have been rather the dog of Tartary, of whom various breeds were kept for the purpose of hunting, as late as the thirteenth century; the grand Khan, according to Marco Polo, taking the field with a pack of 5000[o]. According to the same traveller, there are dogs in the province of Centigui[p], of such strength and prowess, that two of them are more than a match for a lion. The Tibetan dog is an animal of great strength and fierceness, though capable of domestication. Of the wild dog of India we have only lately had any authentic description; an account of the *buansu*, or wild dog of Nepal, having been published by Mr. Hodgson[q], and another of the *kolsun*, or same animal in Malabar, by Col. Sykes[r]. That v.

[n] Herod. i. 192. vii. 187. [o] Ramusios' edition, p. 28.
[p] Ibid. p. 40. [q] Asiatic Res. xviii. p. 2. [r] T. R. As. Soc. vol. iii.

these dogs hunt other animals in packs of eight or ten, and overpower not only buffaloes and wild cattle, but even leopards and tigers, was first stated by the author of the Wild Sports of the East; it was confirmed by bishop Heber; and is placed beyond doubt by the observation and inquiries of the last named authorities.

XIII. "Indian sheep and goats, it is said, are larger "than asses, and bring forth four or six lambs at "most. They have tails so large, that it is neces- "sary to cut them off from the female, to admit the "access of the male." On the other hand it is stated, that "amongst the pigmies the cattle are of the like "diminutive stature, the sheep are no bigger than "lambs in other countries[r], and the oxen, asses, "horses, and mules, and other beasts of burden, "are not larger than ordinary rams. There are no "swine, either wild or domestic."

Now it is perfectly true that the cattle of various parts of India differ materially in size. Several of the sheep and goats of the mountains are large and portly animals, and the domestic breeds are used, the sheep especially, for carrying loads; whilst the wild species, as the *bharal* or argali, and the *jamlah* goat, are, according to all accounts, animals of great size and strength. The *dumba*, or broad-tailed sheep, is common in central Asia. In Bokhara[s] all the sheep are of this kind; some of the tails yield as much as fifteen pounds of tallow. The animal looks deformed from its size, and straddles along with evident uneasiness. Some of the horned cattle of the northern provinces of India are tall and handsome animals, whilst the forests produce the two large species of the Gaur and the Gayal, and the buffalo

[r] Ælian iv. 26. [s] Burnes, ii. 174.

itself appears to have been known to the ancients as the Indian ox. The Turkman horse is celebrated for size and strength. On the other hand, the animals of the more southern parts of India are of a diminutive breed. The horses of Bengal rarely exceed thirteen hands, and the goats and sheep are of the smallest size. The zebu, or hunch-backed Indian cow, is not taller than an English calf; and there are still smaller breeds, some of which are not so large as a moderate-sized mastiff dog. With regard to the absence of the hog, we must here agree with Aristotle, that Ctesias is not worthy of belief, for both the wild and domestic kinds are known to the Sanscrit language, and the medicinal properties of the flesh of both kinds are described by Hindu writers. It is to be observed, however, that Ælian[t], who repeats the remark, adds, that the Indians abhor the flesh, and would as soon feed on that of man; a very superfluous disgust, if the animal was not known to them. It is quite true that no Hindus, except the outcastes, will eat the flesh of the *Gráma súkara, Gaon ka súr*, the village or tame swine; but the wild hog is permitted food, at least to persons of the military caste; and I recollect partaking of one which had been sent as a present from the raja of Bharatpur to the English officer commanding at Mathura. The wild hog was indeed an animal high in esteem amongst the Hindus in former times. The flesh of the wild boar offered to deceased progenitors, satisfies them for ten months[u], and to the goddess Káli, satisfies her for twelve years[x]. One of the principal avatars of Vishnu is denominated the Varáha, or boar, in which the deity, assuming

[t] Lib. xvi. c. 36.

[u] Menu, iii. 270.

[x] Asiatic Researches, vol. v.

the head of the animal, upraised upon his tusks the earth which had been submerged beneath the ocean; as in the concluding passage of the drama, Mudra Rakshasa, it is said of the earth,

> That erst, by power divine upborne, she rode
> Safe on the tusks of that celestial boar,
> Who snatch'd her from the o'er incumbent floods,
> And rear'd her green hills once again to heaven y.

XI. Æl. IV. 26. Of hares and foxes it is asserted, "that they are "hunted, not with dogs, but with crows, hawks, "kites, and eagles;" and the statement is so far true, that in India, properly so called, dogs have never been associated with man in the chase. Hawking has long been common, both with Mohammedans and Hindus; and in native portraits of Nawabs and Rajas, it is very common to see the hawk sitting on the wrist of the individual who is delineated. It is doubtful, however, if the practice was not introduced by the Mohammedans; for there is no trace of this amusement in any of the Sanscrit poems or plays.

XXV. Æl. IV. 25. "India has wild asses as large as horses, with a "purple head, blue eyes, and a white body; they "have a horn on the forehead a cubit long, the "lower part of which, or that nearest to the skull, "is very white, whilst the middle is black, and the "tip red: raspings of this horn infused in any fluid "are a preservative against poison, and either wa- "ter or wine drank out of cups made of it, either "before or after swallowing poison, will prove an "antidote: drinking from such cups is also a pro- "tection against spasms and epilepsy.

"All other asses, whether wild or tame, and all "animals with solid hoofs, are without astragali and "without gall, but these animals have both." The

y Hindu Theatre, 2. 152.

bones which Ctesias says he had seen, he describes " as very handsome, they resembled the astragali of " the ox in form and size, but were as heavy as " lead, and of the colour of minium, externally and " internally."

" The Indian wild ass is a very strong and swift " animal; no other can overtake it. At first it runs " gently, but it increases its velocity as it proceeds. " It is captured only by this device:—when droves " of them take out their young to pasture, they are " surrounded by horsemen, and being unwilling to " abandon their young, they do not gallop off, but " remain and fight with horns, heels, and teeth, " and kill many of their assailants: at last, how- " ever, they are overpowered and slain with arrows " and darts; they are never taken alive. They are " hunted for their horns and astragali, for the flesh " is too bitter to be eaten."

In this account there is an evident confusion of right and wrong, and the circumstances obviously relate to two different animals, the rhinoceros, and the wild ass or horse; the former of which is really an Indian animal, whilst both the latter are numerous in the countries immediately north of the Himalaya.

The peculiarity of the horn, and the belief in its virtues as an antidote, belong to the rhinoceros. The same powers are generally ascribed by the orientals to cups made of it, as Chardin, speaking of the popular notion that prevailed in his day, observes; " On prétend qu'aux Indes les rois et les princes se " servent de cornes de rhinocéros à boire, à cause de " l'antipathie qu'elle a avec le poison lequel se re- " connoit en ce que le corne sue au moindre poison " qu'il y a dedans." A similar statement is given

in Wilkins's edition of Richardson's Dictionary. In neither the Heft Kulzum nor the Burhan Katia is this property mentioned, although they both state that raspings of the horn taken internally expel wind. The Makhzan al Adwíah, a medical work of great merit, notices that drinking cups are made of the horn of the rhinoceros; and Baber [z] relates that he had a goblet made from one: a belief in the alexipharmic virtues of the material was no doubt the reason for the fabrication of such vessels, and the notion seems to be very widely diffused throughout the East. Thunberg, at the Cape of Good Hope, observes, with regard to the horn of the African rhinoceros, it was esteemed for making drinking cups, as any poisoned liquor in them would ferment: he even submitted this to the test of experiment; but found, as might have been expected, the bowl was very unconscious of its drugged contents. In Persia we have seen that the idea prevailed in the time of Chardin, and one cannot doubt its currency in India. Buffon mentions various authorities to this effect. Mr. Forbes, speaking of the notion at the Cape, says it is as common there as in India; and in a little treatise on natural history, printed at Serampore, in Bengali, partly translated and partly original, it is said the Hindu physicians consider the horn, teeth, nails, skin, and other parts of the rhinoceros, as eminently medicinal in a variety of complaints, and that Indian princes have drinking cups made of the horn, on account of their being antidotes to poison. The same belief extends to the eastern Archipelago and to China, and it has been said, that to the latter, a thousand rhinoceros' horns

[z] Memoirs of Baber, 316.

are annually exported from Siam [a]. The horns are employed by the Chinese for supposed medicinal purposes. So far, therefore, little doubt can be entertained that the one-horned animal of Ctesias is the rhinoceros.

The Indian, or rather the Persian name of an animal, probably the same as the unicorn of our text, which also occurs in Ælian [b], identifies it with the rhinoceros. It is there termed *kartazon*, or *kartazonos*, καρταζωνος, and this has been corrected with very good reason, by Bochart [c], to *karkazon*; for the Persian name of the rhinoceros is *kargadan*, كرگدن; or as it is also read, according to the Burhan Katia, كركذن *kargazan*; both of them connected apparently with the Sanscrit appellation *kharga*. This in Bengali is confined to the horn, and the animal is in that language and in Hindi, called *Genda*; in this case we might have the compound, *s. khargaván*, *p. khargadán*, the original of the *kargadan* of the latter. Tychsen, adhering to the common reading, would explain it by كرك *a rhinoceros*, and تازان *running*, as if it meant the fleet rhinoceros: the compound is not known to the Persians; and whatever may be said of the speed of the rhinoceros, no person familiar with the appearance of the animal can associate with it the idea of swiftness. All that is meant probably by the accounts of its velocity, is, that it runs faster than might be expected from its figure: it is easily overtaken by a horseman.

Of the anatomical peculiarities noticed, it is true that many of the solid-footed animals, as the horse,

[a] Crawford's Embassy to Siam. [b] xvi. 20.
[c] Hieroz. P. 1. b. iii. c. 26.

ass, deer, have no gall bladders, and that the rhinoceros has: but the divisions of his toes exclude him from the class of solid-hoofed animals; and here, therefore, the description applies rather to the horse or ass, than to the rhinoceros. Animals with divided as well as undivided hoofs, however, have the tarsal bone, called the *astragalus*, unless Ctesias meant something else by the appellation. What use this bone was applied to, so that the animal should be hunted for it, is not described; but it might have been employed as a sort of dice in some game of chance, or worn as a talisman. According to the Makhzan al Adwíah, rings for the fingers and thumb are made from the horn, and they were possibly made from the heel bone also, to be worn as preservatives against venom. From its red colour, Tychsen supposes it must have been painted; but in that case the colour would have been only superficial; and it is worthy of notice, that Ælian says the colour throughout is 'black.' There is more plausibility in Tychsen's conjecture, that the various colours of the horn applied to it after its formation into a cup, when they were given to it by art; a supposition confirmed by the passage which he cites from Manuel Philo, in which the author asks an Indian prince [e] what the cup out of which he drank was made of, and which was ornamented with three rings, white, black, and red. The reply was, that it was made of the horn of the onager. At the same time it is to be observed that the horn of the rhinoceros appears to undergo a change of colour, and is sometimes grey, approaching to white; and the white is most highly valued.

[e] Heeren, ii. 384.

Of the flavour of the flesh it is to be remarked, that Persian physicians declare that the flesh of the horse and the ass is sweet to the taste, but bitter in digestion; whilst the Hindu medical writers affirm that the flesh of the rhinoceros is sweet: what is also more germain to the matter, Manu[f] declares it unlawful to eat the flesh of any animal with undivided hoofs, and enumerates the rhinoceros as amongst the animals that may be eaten. The Makhzan al Adwíah observes, also, that the flesh of the rhinoceros is halál, *permitted, good;* and the Bengali treatise, above referred to, states that the Hindus eat it. Here, therefore, Ctesias means the horse or ass.

Besides the singleness of the hoof and qualities of the flesh, the figure, size, and speed evidently refer to an animal of the family of the horse, and either to the wild ass, the Gor khar, or to the wild horse, the dzigtai or equus hemionus, or some other species, for both are common in the regions north of the Hindu Koh: the Gor khar, however, must have been well known in Persia, where it is still, as it ever has been, native, and a favourite object of the chase; and the wild horse is therefore more probably the animal intended. This, as found under the name of Kiang, in Ladakh, by Messrs. Moorcroft and Trebeck, was white about the nose, under the neck, and in the belly and legs; the back was a light bay, and the mane was dun: they herded in considerable droves, and the manners of the animal were such as Ctesias describes: at first he trots off gently, when a pursuer approaches, stops and turns, and looks at the object of his fear, and then flies off

[f] v. 11. and 18.

with unapproachable speed and irreclaimable wildness. They are occasionally, but with difficulty, shot, but never taken alive. It seems most likely, therefore, that this was the animal of whom Ctesias received accounts; but either he or his informants blended them with some imperfect description of the rhinoceros. The compound seems to have been in some respects a mythological one, as the sculptures at Persepolis contain several representations of the unicorn, with the body, according to Ker Porter[g], of a bull, but according to Niebuhr and Morier, of a horse.

III. Birds. There is a chapter on gallinaceous fowls of the largest size, of which the title only is preserved. Some of the particulars, however, seem to be given by Ælian[h], who describes the birds as having many-coloured crests, broad tails, feathers and plumage of partly a golden and partly an emerald colour. Ctesias might have alluded to the peacock, which was not known to the Greeks, apparently, before Alexander. Cuvier considers the bird described by Ælian to be the Impeyan pheasant (Lophophorus refulgens).

III. The parrot is well enough described[i] as "being of "the size of a crow, with a red beak, a black head, "and a blue or a red neck, with human voice and "speech, and talking either Indian or Greek, accord-"ingly as it was taught." The name of this bird, which, although it is read much more frequently Psittakus, Ctesias calls Bittakos, is derived by Re-

[g] Heeren, i. 154. [h] Æl. xvi. 2.

[i] Pliny, x. 42. Suidas in voce ψιττακος. Olympiodori Excerpta apud Phot. Diod. Sic. 2.

land from تدگ, Tadak, one of the synonymes of a parrot in the Persian language. On this Tychsen remarks, "From this might come τεδακος, τιδακος, "σιττακος, and finally ψιττακος; and it is just pos- "sible that Ctesias might have written the name "Tedek, with a ب *b* instead of a ت, thus changing "it to Bittakos: but this," he adds, "is mere con- "jecture." And it is too much in the old style of etymological license to deserve much weight. The more usual sense of Tadak also is *heathcock*, and the current name of *parrot* is Tuti. The Sanscrit name Suka, or Sukas, furnishes some of the elements of Psittakus; and there is some approach to the latter in one of the generic names of a bird in Sanscrit, *Pitsat*, "habitually alighting." But no great stress need be laid on these coincidences. The conversational powers of the parrot have long been famous in India, though it should appear that they were novelties in Persia in our author's day. There is now, however, a popular collection of tales in the Persian language, supposed to be narrated by a parrot, the *Tuti nama;* the idea of which was perhaps suggested by a similar series in Sanscrit, the *Suka Saptati*, "the seventy stories of a parrot." The parrot and other birds, as the Maina or Grakle, and Koïl or cuckoo, have always been pets; as in the Mrichchakati: "The pampered parrot croaks like "a learned Brahman, stuffed with curds and rice, "chaunting a hymn from the Vedas; the maina "chatters as glibly as a lady's maid repeating her "mistress's pleasure to her fellow-servants; and the "koïl, crammed with juicy fruit, wheezes like a "water carrier[k]."

[k] Hindu Theatre, i. 86.

XVII. Æl. IV. 41. "There is also, it is said, a bird called Dikærus, "the meaning of which in Greek is δικαιος. It is not "larger than the egg of a partridge, and is remark- "able for concealing its dung, on purpose that it may "not be found, because the substance is of a poisonous "nature, and if as much as a sesamum seed of it be "swallowed in the morning by any person, he falls "into a sound sleep, and expires by sunset." Reland confesses he can make nothing of the name of this bird; and his conjectural derivation of it from the Persian دلک, *Dilmek*, a venomous spider, is, as Tychsen observes, rather farfetched. The same, however, may be asserted of the etymology which he would substitute of دي, *Di*, "good," and کار, *Kár*, "maker," i. e. benefactor. If we might suppose an error in one of the letters of this word, and read it Ditæros instead of Dikæros, we might find a Sanscrit original for it in Tittiri, *a partridge;* or, if the initial were changed to a B or V, in Vikira, *a bird in general.* But these also are mere conjectures. Ornithologists have agreed to apply the name Dicæus to a class of small birds, of the family of creepers, which exists in India, the habits of which are not known, nor am I aware of the native name. According to Ælian, the colour is that of Sandarach, or red, which would apply to the little Amadavat finch. The effects of the dung, as described by that writer, identify it almost to a certainty with opium, small pills of which may have been mistaken for it, or have been metaphorically so termed. The death it induces is, according to him, a gentle dissolution, a sweet sleep. It was therefore regarded by the Persian monarch as the most acceptable present which the Indian sovereign

could send him, as an agreeable refuge, in case of necessity, from irremediable ills.

XVI. Reptiles.

Of reptiles, we have an account of "a snake nine "or ten inches long, of a purple colour, with a very "white head, and without teeth, which is met with "in the same mountains where the sardonyx is ob- "tained. It cannot bite, but any part upon which "its saliva falls mortifies. When suspended by the "tail it emits two kinds of venom; one whilst "alive, which is black, and like a sort of amber; "another after it is dead, which also is black. A "sesamum seed of the former kills immediately, "and the brain of the person comes away through "the nostrils. The latter brings on a gradual de- "cay, and proves fatal in about a year."

It may not be possible to identify the reptile here alluded to, but there are various small snakes in India to which deadly properties are ascribed. Several of the kinds of Typhlops, or blind snakes, are not larger than common earth-worms, being not above nine inches long, and not thicker than a crow-quill[l]. The bite of some of these is said to be fatal, whilst that of others produces extreme debility. Of one small species, Mr. Forbes[m] relates that its body is covered with a glossy slime, which it leaves like a snail wherever it crawls, and which is believed to be poisonous. Its teeth were visible, according to Mr. Forbes, only through a microscope; but Cuvier[n] says he had not been able to discover any teeth in those which he had examined.

[l] Russell's Indian Serpents, plates 36, 37, 42, 43.

[m] Oriental Memoirs, i. 229.

[n] Griffiths' Animal Kingdom, ix. 248.

The saliva, as well as other secretions of the snake, and of some other reptiles, is considered to be poisonous; and the poison of the snake is collected, and administered internally, for medicinal and deleterious purposes. In the poison described by our author, however, we might again suspect traces of opium, not only in its black colour and its effects, but in its concurrence with the sense of the Sanscrit name of opium, which is *Ahiphena*, meaning the foam, froth, or saliva of a snake. The history of this word, however, is uncertain, and instead of being the parent, it may be the offspring of οπιον (opium), through the Arabic *afiun*.

XXI. Æl. IV. 46. "There are in India insects of the size of a "beetle, of the colour of minium, having very long "feet, and as soft as worms. They are found on "the trees which bear amber, and feed upon and "spoil the fruit in the same manner as the phthires "do grapes. The Indians, by bruising these ani- "mals, obtain a dye, with which they dye robes and "tunics, and other articles of dress, of a scarlet "colour, very superior to the Persian dyes."

Although the description of the insect is not perhaps very exact, yet the remarkable peculiarity of its affording a scarlet dye identifies it either with the cochineal or the lac insect. Wilford[o] supposed it to be the latter; and its connexion with amber, which will presently be adverted to, or, in other words, with shel-lac, renders it probable that the lac insect is intended. Beckmann imagines it to be the cochineal, but Heeren[p] leans to the lac: he observes, "A third and no less certain class of pro-

[o] Asiatic Researches, ix. 65. [p] ii. 209.

" ductions which the Persians and Babylonians ob-
" tained from India, were dyes, and amongst them
" the cochineal, or rather Indian lacca." He infers also the domestic use of this dye in the colouring of stuffs, which were likewise imported, and which were nothing else than Cashmir shawls. Mr. Royle[q], in his Illustrations of the Botany of Northern India, conceives that the lac insect cannot exist both in the sultry plains of India and the cold and arid table-land of Tartary, to which Heeren refers it, and to which, or at least to Tibet, the locality of Ctesias applies. Admitting this to be the case, and that the insect in question was not the coccus lacciferus, a kind of cochineal is found on the roots of a plant in a marsh near Herat; and a similar insect, probably the kermes, is an article of considerable import at Herat from Bokhara and Yarkand, being brought originally either from Russia or China. Lieut. Burnes also describes a worm which attaches itself to the root of a plant growing luxuriantly on the banks of the Oxus, and other rivers in the same country, which produces a purple dye like that of cochineal. He says he compared it with American cochineal, and they appeared to be similar, only that the native preparation was softer. The people however do not well understand the management of the insect, although, in their imperfect process, it still produces a dye inferior only to cochineal[r]. It might therefore have been this insect, perhaps a kind of kermes, which is described by Ctesias as the produce of northern India, if it was not the lac

[q] Botany of the Himalaya Mountains, p. 85 and 225.
[r] Travels to Bokhara, ii. 169.

insect: but that this latter does not live in that direction is yet to be determined. It appears that this is not the only question that is doubtful regarding the lac insect; as in Griffiths' Animal Kingdom it is said that there is no very positive proof that the lac which is brought from India is owing to a cochineal. The description given of the insect by Dr. Roxburgh [s] conforms generally with those which have been published of the cochineal insect, though the plants upon which it is found embrace a greater variety, and the construction of its nest may differ. The name is Sanscrit, implying a multitude, from लक्ष, "a lac—a hundred thousand," in reference to the number of small insects found in a nest. And the denomination of *kermes* is also of Indian origin. Cochineal is called by the Persians *kirmiz*, from *kirm*, كرم, Sanscrit *krimi*, कृमि, a worm or insect.

I. XXVII. Æl. V. 3.

"The only animal which is found in the Indus is "said to be a kind of worm (σκωληξ), of the same "kind as that which is found in the fig-tree, vary- "ing in length, but commonly seven cubits long, "and so thick that a child of ten years of age can- "not grasp it. It has two teeth, one above, one "below, and with them devours whatever comes "within its reach. During the day, it burrows in "the mud, but at night it issues on the land, and "carries off oxen, or even camels. It is taken with "a large hook, to which a goat or sheep is fastened "with an iron chain. When captured, it is hung "up for a month, with vessels placed underneath, "into which runs as much oil as would fill ten "Attic cotylæ (or nearly five pints). The carcass is "thrown away, and the oil is sent to the king, no

[s] Asiatic Researches, ii. 360.

" other person being allowed to possess it. This " oil burns whatever it touches, consuming living " beings as well as timber and the like; and it is " only to be extinguished with soft clay."

In this reptile we have, no doubt, some imperfect accounts of the size, habits, and rapacity of the alligator; whilst, in some respects, the scolex may be no more than the hydrus, or water-snake. The flesh of the alligator is said by native physicians to be greasy, but I am not aware of any oil being extracted from it: at the same time, it may be practised in some parts of India. In an alligator, at the dissection of which I assisted, enormous masses of yellow fat were found under the skin, which might have been converted into oil. A coarse oil extracted from fish (matsya tailam) is in common use in India for different purposes: and the oily fat of the porpoise (Delphinus Gangeticus), which is probably an inhabitant of the Indus, is also considered as an external application of great efficacy for pains of various kinds. The flesh of the lion is also boiled down for its oil. For inflammable oils we have bhumi tailam (earth oil), or petroleum, and silajit, or bitumen, which is supposed to exude from rocks. Ælian adds, that the substance in question is used in sieges; and an earthen jar containing the oil being thrown against the gate of a town, the jar breaks, and its contents, taking fire, consume the place and its defenders. The Hindus appear to have had a knowledge of some kind of fire-arms in ancient times; and the Sataghni, or 'destroyer of a hundred,' is commonly described as a sort of rocket, a weapon which was generally used in Indian armies at a later date.

XIII. Plants. We have only the heading of a chapter on the Indian palm, with the remark that the fruit is thrice as large as the Babylonian.

XIX. "There are trees in the mountain regions growing "in the water, which at certain periods of the year "drop tears, like the almond or pine, or the like, and "this annually for thirty days; and these tears, fall- "ing into the water, become congealed. This tree is "called, in the Indian language, *siptakhora*, which "signifies in Greek, *sweet, agreeable* (γλυκυ, ηδυ), "and the Indians gather amber from it. The fruit "of some of these trees grows in clusters like grapes; "the kernels are as large as the nuts of Pontus."

There is nothing uncommon in India in the exudation of tears, or of a gum or resin, from a tree: and many valuable products of this nature, as olibanum, bdellium, mastich, kopal, katechu, and the like, are obtained from trees of Indian growth. The last-named resin is the produce of a tree, of which the name affords some resemblance to Sipta khora, the Sanscrit Sweta khadira, श्वेतखदिर, or, in the spoken dialects, Set-khair: but Sweta or Seta, श्वेत, means *white*, not *sweet*, which in Sanscrit is Swádu स्वादु. Reland and Tychsen agree in supposing khora to be derived, as in the case of Martikhora, from the Persian Khorden, *to eat;* and the former refers the first member of the compound to the word Sefa, صفا, *pure, pleasing*, which, as an Arabic, not even a Persian word, is quite inadmissible. Tychsen deduces it from Shifteh, شفتہ, asserting that Shifteh khor means *agreeable to eat.* Shefteh, Tychsen says, comes from Sheften, which means *to be in love;* and Shaftarang, Shaftalu are

applied to the peach and apricot (or rather the nectarine), as if, according to Wilkins, the fruit was of the colour of love, or was the apple of love. In the Burhani Katia, however, a well of Persian undefiled, one of the senses of Sheften is چکزیدن, *to ooze, to drop;* and this will agree well enough with the properties of the Sipta-chora tree. But it is said of this tree, that the Kalystrii, the Indians of the mountains, feed upon its fruit, and dry it like grapes, and make it an article of barter. Now this applies especially to the apricot, which appears to be in its native land in Tibet and the countries beyond the Hindu Koh, and is dried and exported in considerable quantities. At Kaubul, according to Mr. Royle, it is said to be preserved in fourteen different ways. At Balkh[t] it is so plentiful that 2000 are purchasable for a rupee, or two shillings. In the Himalayas the name of the fruit is Zard-alu Chulu, and Chinaru. It is imported into northern India under the Persian name Khubaní, or, *very good.* The manner of its growth does not accord with that described by Ctesias; but we must not expect to make every particular accord.

According to Mr. Royle[u], the peach, apricot, cherry, and plum, all exude gum in northern India; and in this we have the amber of the Sipta-chora. But here is probably some of that confusion which evidently pervades several of our author's descriptions, the blending into one article circumstances which are true of two or more. It is said of this tree, that the insects which furnish the red dye live upon it, and if that be the lac insect,

[t] Burnes, ii. 171.

[u] Illustrations of the Botany of the Himalaya.

the amber is probably nothing more than the substance of its nest, the resinous walls of the cells in which it breeds; in regard to which Dr. Roxburgh remarks, that it cannot be better described with respect to appearance than by saying it is "like "the transparent amber that beads are made of[x]." It may be some further illustration of Ctesias's account, that the inhabitants of the countries where his amber-dropping tree is said to grow, are still particularly fond of wearing beads of amber, or of some similar resin. They procure it through the Punjab and Caubul chiefly, but from what source is not known.

But we have still another tree, and this in the mountain which may have something to do with the Siptakhora, especially as the name Swadu-kola, or Swetacola, a sweet or light-coloured variety of the Badari or jujube might be applied to it. This is common in the jungles of northern India, according to Royle, where the fruit is dried and pounded. This kind also bears a kind of lac, which is used for dying leather, cotton, and silk[y]. And in the fruit and gum, as well as the name, therefore, a tolerably close approximation occurs. At the same time it seems most likely that the apricot furnished the principal features of the Siptachora, mixed up with others that belong to different trees. In fact the word Siptachoras, as he himself explains it, meaning merely sweet, or as Pliny[z] understands it, *prædulcis suavitas*, is applicable to any tree bearing sweet fruit.

[x] Asiatic Researches, vol. ii.

[y] Illustrations of the Botany of India, p. 170.

[z] Lib. xxxvii. 11.

" At the source of the Hyparchus river grows a XXI.
" purple flower which yields a purple dye no way
" inferior to that in use amongst the Greeks: it is
" rather brighter."

If we are to understand by purple (πορφυρα) a blue colour, the indigo plant readily presents itself. This grows as well in northern as in central India according to Mr. Royle, and lieutenant Burnes found a bastard species of it in the neighbourhood of Bokhara, although the true plant, he says, does not grow there. Its use, as a dye, was long known to the Hindus, as in the Pancha tantra, the collection of apologues, which is the original of Pilpay's fables[a], and which is known to be of a date anterior to the sixth century at latest, there is a fable of a jackal having tumbled into an indigo vat. The north-west of India, however, is rich in dyeing drugs, and the Rubia Manjith, or Madder, or the Kusumbha, *Carthamus tinctorius*, both growing abundantly beyond the Himalaya, might be the plant in question; the former yielding a deep red or crimson dye, and the flowers of the latter being employed for a rose-coloured, purple, and violet dye.

" The Indians have trees as tall as the cypress or XXVIII.
" cedar, whose leaves are broader than those of the
" palm, but like them in other respects, and without
" any axillæ. They bear a flower like that of the
" male laurel, but no fruit. The Indian name is
" Karpion, the Greek Myrrho-rhoda. They are not
" common. An oil exudes from them, which is
" caught by flocks of wool fastened to the tree, and
" thence transferred to alabaster vases. It is of a

[a] Transactions of the Royal Asiatic Society, vol. i. p. 164. Hitopadesa, b. iii.

" reddish colour and viscid consistence, but so fra-
" grant that its odour extends for five stadia. It is
" given only to the king and those about him. The
" king of India made a present of some to the king
" of Persia, and Ctesias says he saw it, and the
" smell was such as he could not describe, except
" by saying it was unlike any other."

The fact of a fragrant oil, or perhaps rather of a fragrant paste, having been sent from India to Persia, can scarcely be questioned. This could not have been *atr* of roses, not only from the description of the tree, but from the peculiarity of the odour. Had that been the fragrance of roses, Ctesias need not have been at a loss to describe it. The perfume to which the account of it best conforms is that of Sandal, which is very generally used in India, both as a paste and a viscid oil, and is obtained from the wood of a handsome tree, although it does not resemble a palm in its foliage. The name *Karpion*, however, does not belong to the sandal tree, nor to any other Indian plant, as far as I have been able to ascertain. The nearest approach to it is the Sanscrit Karpura, which, through the Arabic modification Kafur, has supplied the European term *camphor:* an oil of camphor is extracted from the tree, and well known in India, and the drug is obtained from a species of laurel, according to Kæmpfer[b], as well as from a variety of trees not so properly the growth of India as of the countries to the eastward, or Sumatra and Malacca. This might have found its way through India to Persia; but, unless mixed with some other substance, would not have been of a reddish tint. Nor is the etymological af-

[b] Asiatic Researches, vol. xii.

finity very satisfactory, although it is fully as much so as any other proposed. Reland derives Karpion from the Arabic name of cinnamon, قرفه, which, however, is a derivative from قرف, *decorticavit*, and means the peeled bark, not the tree. Tychsen agrees in supposing the latter to be meant, on the authority of Paulinus a Bartholomæo, who asserts that the Sanscrit name of cinnamon is Karuva, but no such Sanscrit word occurs in medical vocabularies, and it is more properly the Tamil term, Kárruwá. I am not aware, however, that an oil of cinnamon is known in India.

" There is a sort of wood (or rather a tree) called XVIII.
" Parēbon, or Parubon (παρηβον, παρυβον). It is of the
" size of the olive, and is found only in regal
" gardens. It bears neither flowers nor fruit, but has
" fifteen roots under ground, each of the thickness of
" a man's arm. A piece of this, of a span length,
" attracts every thing to which it is directed, gold,
" silver, brass, stone, and all substances except amber.
" A piece of a cubit in length will attract even sheep
" and birds, and it is employed especially to catch
" the latter. If you wish to congeal water or wine,
" put three oboli of the root into a gallon of fluid,
" and it will become like wax, so that it may be
" held in the hand. It liquefies again in the course
" of a day. It is of benefit in cholic."

The wonders related of this shrub, or wood, have originated perhaps in the properties of some plant with a viscid or glutinous juice, to which light substances may adhere, and which mixed with fluids forms a strong mucilage and demulcent. Many of the Malvaceæ and Tiliaceæ, affording mucilaginous juices, are found in India, and a strong mucilage

used as a demulcent is prepared from the seeds of the holy Basil. The employment of Lásá, لاسا or bird-lime, to catch birds, is well known in India, and it is obtained from various plants: amongst others, from the stem of the Indian and the religious Fig. Reland has not made any attempt to explain the origin of the name Pariban, which Tychsen resolves into the Persian compound Bár-awar بارآور, "load-bringing." The first part of the term may be referred to the Sanscrit *pari*, परि, "about," "back "again," and the latter to *vana*, "a grove:" *pari-vana*, "in or about a grove, or garden:" but there is no authority for such a compound, although *pâri* occurs as part of the appellation of different trees, as *pâri-jata*, "the coral-tree," *paribhadra*, "the silk-"cotton."

VI. "In the plains and mountains through which the "Indus runs there grows the Indian reed. This varies "in dimension, some being larger and some smaller, "but there are some so thick that two men with their "arms extended cannot encircle them, and some are "as lofty as the mast of a merchant vessel. These "reeds are male and female, and the female has a "sort of medulla which the male has not. The latter "is the larger."

We need not be at a loss in this account to recognise the Bambu, which grows abundantly in most parts of India, and often attains a considerable size. The height is not at all exaggerated. The circumference exceeds the truth, as the largest kind which is found in Ava and Pegu rarely exceeds twenty inches in girth. Ctesias, however, is less extravagant in this than even Herodotus [c], who asserts that a single

[c] iii. 98.

joint of the bambu is sufficient to form a canoe. The distinction of the plant as male and female, the latter being so considered from its more slender form and larger cavity, has been preserved in popular language to the present day. By the Enterione (ἐντερίωνη), the pith or medulla of the female bambu, Ctesias probably intended the peculiar substance found especially in the smaller kind of hill-bambu, long known to Oriental physicians as *tabasheer*, and highly prized as a febrifuge, demulcent, and restorative in Persia, Arabia, and Turkey. This, which is at first a watery fluid, gradually becomes viscid, and finally solid, of an *opal* or milk-blue colour, more or less semi-transparent; whence the latter part of its name *shir*, from *kshir*, "milk." It has been the subject of careful investigation, in the first instance, on account of its supposed medicinal virtues, and latterly for its curious optical properties, and very low refractive power. Dr. Russell has treated of the first in the Philosophical Transactions for 1790, and Sir David Brewster of the latter in the same collection for 1819, as well as in his Journal, November to April, 1828. The latter writer considers it to be nothing more than the sap of the bambu extravasated into the hollow in consequence of a disease in the spongy part of the internodal substance through which it should properly circulate. Humboldt is of opinion that Salmasius has rightly referred the saccharon of Pliny to the medulla of the bambu [d], describing it as a honey collected in canes, of the whiteness of gum, crumbling between the teeth (*dentibus fragile*), in lumps about the size of a filbert, and used only in medicine; con-

[d] xii. 17..

cluding from this and other notices found in ancient authors respecting sugar, that hard sugar was unknown to the ancients, and that when they speak of a solid sugar they mean tabasheer, or sharkara of bambu [e]. Unfortunately, however, for this conjecture, the little flavour that tabasheer possesses is rather salt than sweet, and in its dry state, in which alone it is exported, it is so hard that it would be much more likely to break the teeth than to be broken by them. The saccharon of Pliny is much more likely to be manna, which is an Indian as well as an Arabian product. The allusion to the interior secretion of the bambu by our author is valuable as a test of his accuracy, and of the probability of the substance being then, as it has ever since been, an article of imaginary, if not of real medicinal value; the notion being derived from the medical writers of the Hindus, which describe the Bans-lochana, also called Twak-kshiri, whence Tabashir, as nutritious, strengthening, aphrodisiac, sweet (medicinally), and cooling; a remedy for thirst, fever, consumption, asthma, bile, blood, jaundice, and leprosy. "Bháva "Prakás."

IV. Minerals.

There is little more than the heading of a chapter which treats of a fountain of liquid gold [f], "which is drawn off, it is said, in vessels of baked "clay to the extent of a hundred annually, each "holding one talent. The gold hardens as it is "drawn, and it is necessary to break the vessels to "get it out. It is a square fountain, sixteen cubits "in circumference and one in depth."

[e] Humboldt on the natural family of the Grasses. Quarterly Journal of Science, vol. v. 51. and vol. vii. 363.

[f] Philost. de v. Apollonii 3.

This looks like some imperfect account of a bed or furnace in which gold had been melted or refined, and had been drawn off for casting in earthen crucibles.

In another passage it is stated, that " gold is not " obtained in India from the sands of rivers by " washing, as it is from the Pactolus, but is found " in lofty mountains inhabited by griffins. These " are birds with four legs, of the size of a wolf, " with the legs and claws of a lion, having red " feathers on the breast, but black on the rest of " the body. It is difficult to procure the gold on " account of these birds." XII. Ælian. xxxvii. 4.

Although it is not true that gold is not found in the sands of rivers in India, as those of many of the hill streams of the Himalaya [g], and those of the Oxus are washed for the ore, yet it is found native in various parts to the north of the Himalayan chain, as in the country of the Kafirs and in Tibet [h], and is sometimes met with in considerable lumps. In the latter country a popular prejudice, and even the orders of the government, are adverse to its collection; for it is believed to be the property of certain spirits, the genii of the place, and the special ministers of the God of wealth, whose anger is excited by any attempts to despoil them, and, unless appeased by suitable homage, proves fatal to the sacrilegious individual who has taken away the metal. These superstitions may have formed the basis of the stories of griffins and of ants as large as dogs; the former of which is alluded to by our author, and the latter described more particularly by Herodotus, Ælian, and Strabo. The γρυψ, *grups*, or *griffin*, of the text, may very probably be con-

[g] Burnes, vol. ii. p. 165. [h] Ibid, vol. ii. p. 211.

nected, as Tychsen supposes, with the Persian verb, گرفتن, *to seize;* whence the German *greifen*, and our words *grip, gripe;* the whole family being related to the Sanscrit *graha, grihitum, to seize*, or *lay hold of.* The anomalies of his form may also be Indian, and borrowed from the Garura, the bird and vehicle of Vishnu, who is commonly represented with the head and wings of an eagle, and the body and limbs either of a man, or a bird of gigantic size. In the latter case he is sometimes represented as carrying an elephant in one claw, and a tortoise in another. A modification of Garuda also occurs in the south of India, in the Gandabharunda, a bird with four claws, each holding an elephant. There is also a bird called in Menu, Hema-kára, *gold-maker;* which, according to Wilford, is commonly described as of vast stature, living in the mountains to the north-west of India, whose dung mixing with the sand of the country converts it to gold. A bird that voids gold is mentioned also in the Panchatantra [i]. The belief in the existence of such an animal as Ctesias describes was probably established in Persia when he resided there; for, as Heeren observes, his description so exactly coincides with some of the Persepolitan sculptures, that it would almost appear as if he had seen the relievo, or the artist had copied his description [k]. With regard to the ants, although they are the creatures of other narrations, it may be observed, that some vestige of the notion may be discovered in Hindu fable and popular belief. All hidden or subterraneous treasure is conceived to be

[i] Transactions of the Royal Asiatic Society, vol. i. p. 179.

[k] Heeren, vol. i. p. 183.

under the especial protection of the Nágas, the snake gods inhabiting Pátála, and who commonly appear as serpents, though they may take what form they please. An interesting instance of this belief is given by Mr. Forbes [l], where, in searching a deserted building for treasure, his people found a large snake where they expected money. But the circumstance that connects this with the story of the Greek writers is, that these snakes, and their charge, are very usually found in *Ant-hills*, in the mounds thrown up by the Termites. Thus in the story of the snake and Brahman's son in the Panchatantra [m], the Brahman having learnt the fact in a dream, finds and worships a hooded-snake, whose abode is an ant-hill; and who, in consequence, gives him money and a rich jewel. There is, therefore, an ancient connexion in Hindu belief, between the Termites and buried treasure; and it is possibly from this source that the ants of western fiction have been derived and embellished. The size Wilford [n] supposes to have originated in a verbal error, confounding the Hindu name of an ant "chyunta," چیونٹا, with that of the hunting leopard chíta, چیتا. This is not impossible; but perhaps it proceeded from some perplexed account of the nest of the white ant. Small as the animal is, it throws up burrows of considerable dimensions. I have seen a field strewed with ant-hills as big as moderately sized haycocks, and they are met with larger. This may have been represented as the ant itself, as big as a fox or a Hyrcanian dog.

[l] Oriental Memoirs, vol. ii. p. 21.

[m] Transactions of the Royal Asiatic Society, vol. i. p. 176.

[n] Asiatic Researches, vol. xiv.

XI. " India, it is said, abounds with silver; and mines " are worked there, although they are not so deep " as those of Bactria." There are no silver mines worked in either country now, and it is not known if the metal exists.

IV. " At the bottom of the gold fountain, previously " noticed, Ctesias says, that iron is found, of which " two swords had been fabricated, and given him by " the king and queen-mother." It is to be inferred, that some more than ordinary value was attached to the stuff of which these swords were made; and it is interesting to find, that Indian steel, Foulad, or Wootz, is still highly prized in the Persian market for the same purpose. The greater part of that which is manufactured in the peninsula, in Hyderabad, or Golconda, is conveyed to Persia[o] by agents from that country, who monopolize the whole of the fabric. The steel is used in the formation of various articles of hardware, but especially in that of the celebrated Damascus or Persian sabre.

Ctesias tells us also that he witnessed the property possessed by rods of the same iron, of averting storms and dissipating heavy clouds, when set upright in the earth. It would seem as if the Persians had some notion of electrical conductors; but the marvel is probably of easy solution; and the clouds passed over, and the storm dispersed, without being materially affected by the iron rods.

V. A chapter contained an account of the great mountains, where the sardo, onyx, and other precious stones were found.

Heeren is of opinion that this refers to the moun-

[o] Journal of the Asiatic Society of Bengal, vol. i. p. 245; Buchanan's Travels in Mysore, vol. ii. 19; Heyne's Tracts on India, p. 358; Tavernier's Voyages.

tains of the Karakorum range, and the country of Badakhshan, where the lapis lazuli is still found in the greatest perfection. In the section, however, XVI. treating of the snake whose saliva is so venomous, it is said to be met with in the mountains which produce the sardonyx, and these are described as very hot. We must therefore go more to the southward for the minerals here mentioned, and these are found in the mountains of the west of India. Carnelians, agates, and mocha stones, are found on the Narbadda, and form a valuable part of the trade of Cambay [p], to which the onyxes and other stones from the sardonyx mountains of Ptolemy have been transferred from their former emporium, Barygaza, or Baroach.

" There is a lake of the circumference of 800 XI. " stadia, on which, when there is no wind, a cer- " tain oily substance floats, which they collect with " buckets. The Indians also use oil and sesamum " from seeds; but that which is taken from the lake " is considered the best."

A variety of oils is extracted by the Hindus from vegetable seeds for culinary purposes, for oiling their hair and persons, and for burning. The only oil that can be identified with that of a lake is the earth oil, or petroleum, which is obtained from wells in Ava [q], floating on the surface of the water. In Cachar [r] a very fine petroleum oil was found floating on water, issuing from the base of a cluster of hills. Something of this kind may occur in the

[p] Forbes's Oriental Memoirs, vol. i. pp. 322, 465; and Transactions of the Bombay Society, vol. i.

[q] Crawford's Embassy to Ava, p. 53.

[r] Gleanings of Science, vol. i. p. 283.

north-west of India, and have been the origin of the lake which Ctesias describes.

XIV. " A river flowing from a rock is said to flow with " honey." This is perhaps a misunderstanding of a figurative appellation. I do not know of any river called in Sanscrit Madhumati, *honey-having;* but it is a legitimate compound; and several streams have the analogous appellation of Ikshumati, or *sugar-flowing, sweet;* in allusion to the fancied sweetness or purity of the water.

XIX. " A river running through India, two stadia broad, " is called by the Indians, Hyparchus, which means, " *bearing all good things.* For thirty days in the " year its waters bring down amber."

This latter circumstance connects it with the Siptachora, or amber shedding tree; and Wilford would consider Hiparchos as nothing more than a corruption of *Sipa-chor*, which again he resolves into *Aspa-cora*, observing that the river was probably thus called because it came from the Sipa-chor, or Aspa-cora country. A town called Aspa-cora is placed obviously, he says, in the country of Tibet, by Ptolemy, and in the Peutingerian tables. The present situation of Aspacora, he observes, is unknown, but he quotes the authority of a native traveller for *gor* and *kar*, being frequently used in combination with other words as the names of places. The river he would identify with the present Tistah. All this however is very unsatisfactory, except the possibility of some connexion between the terms *Sipachora* and *Aswa*, or *Aspacora.*

Reland and Tychsen have not, I conceive, been more happy than Wilford in their etymology of this word. The former derives it from Av, or ap,

او, or اب *water*, and پرخ, perkh, *utility;* a combination as much Greek as Persian. The latter proposes Awar-khosh, اورخوش *the bringer of good.* The Persian form of such a compond would however be Khosh-awar. Pliny[s] reads the word Hypobaros, and if his reading be correct, it may be referred to upa-bári, *minor*, or *lesser water;* or su-bári, *good water.*

" There is a fountain of a square form five ells in xxx.
" circumference; the water is in a rock three cubits
" above and three ells below the surface. In it the
" most respectable persons, men, women, and chil-
" dren, wash; not only for cleanliness, but for health.
" Those who bathe in it plunge in, and the water
" bears them up. Nothing, indeed, can sink in it,
" except iron, copper, silver, and gold, which fall to
" the bottom. The water is very cold and sweet, and
" rises with a bubbling noise, as if it was boiling in a
" caldron. It is beneficial in vertigo and scabies. It
" is called Balladee by the Indians, which means in
" Greek οφελειμα, *useful.*"

There are many mineral springs in India which evolve gaseous matters, but they are in general hot springs. They are very frequent in the hills in Kashmir and Tibet, but their properties have not been investigated. The term Balladee, Reland would derive from Belad, بلاد, *laudatus*, because what is useful deserves praise. Tychsen traces it to بل, or بلد, *strong, eminent.* He quotes also the authority of father Paulinus, to shew that Ballam is the Sanscrit for *water*, and Nallada, for *good.* These are Tamil, not Sanscrit words. Heeren's translator suggests a much more likely affinity to Balladee in the Sanscrit Baladá, or Baladí, बलदी, *giver of strength:* and either that or Phaladá, Phaladí,

[s] Lib xxxvii. 2.

फलदी, *giver of fruit*, or *benefit, beneficial*, is probably the original of the word which Ctesias has preserved.

XVI. " Of another spring it is related, that the water as " soon as it is drawn curdles like cheese, and if as " much as three oboli of it be drunk, the person so " drinking becomes deranged, and relates every thing " he may have done. The king, therefore, employs it " to detect guilt. If the persons accused of any great " crime confess their deeds, (under the influence of " this potion,) they are put to death, if not, they are " set at liberty."

The curdling of the water may have been suggested by a deposit of earthy matter diffused through it whilst it was running, but precipitated when stagnant, like the tufa deposits of many springs in the Himalaya. The application of it, however, is nothing more than the Hindu ordeal, one of their five divine tests of guilt. According to the text of Yajnawalkya, the balance, water, fire, poison, and sacred libation, are divine tests for purgation. In the ordeal of water, the accused is thrown into a pond with his hands and feet bound; if he sinks he is innocent, if he floats, guilty. In the ordeal of poison some deleterious drug is administered to the accused with clarified butter. In taking it he recites this prayer: " Thou, oh Poison, art the son " of Brahmá, steadfast in truth, relieve me from " this accusation, and by means of thy virtue be- " come as nectar to me." If after swallowing the draught no change is observable, whilst the hands are clapped together for five hundred times, the accused is acquitted. The clarified butter, the menstruum of the poisonous draught, may be the origin of the curdled water.

The only article that remains to be noticed is the marvellous gem the Pántárba, of which all that is recorded is its having recovered from the river, into which they had been thrown by a certain Bactrian pedlar, seventy-seven jewels and precious stones sticking together. It does not appear whether they were thrown in purposely: offerings of precious stones to a sacred stream would have been genuinely Hindu, and there is an indication of an Indian original in the number of the jewels, for seven is the tale of various articles of peculiar sanctity in Hindu mythology, as in the Hanuman Nataka, when Ráma drives his arrow through seven trees, then the seven steeds of the sun, the seven spheres, the seven sages, the seven seas, the seven continents, and the seven mothers of the gods are alarmed. The gem that recovers these valuables has however no certain prototype in Sanscrit, unless it be intended for nothing more than it evidently is understood to be by Philostratus, (iii. 45,) a magnet. That was well known to the Hindus as the akarsha prastara, *the attracting stone*, or the ayas kánta, *the aimant, the beloved of iron*, as in the Málati and Mádhava, the lover says of his mistress; "She at the very first glance attracted my "heart as a rod of the magnet-gem draws the iron "metal towards it." It is not said that Pantarba is an Indian word, although it may not be Greek. Reland has not noticed it: and Tychsen's etymology بند در پای, *a binding*, or *attraction, underneath;* that is, below the water, is sufficiently improbable. The last part of the word offers some affinity to ruba, ربا, *stealing, robbing*, as in Dil-ruba دلربا, *heart-stealing*. For the first part we might suggest panj, or panjah, *five*, or *fifty*, connected with the

II.

Sanscrit pancha, and the Greek πέντε. The word may possibly, however, be nothing more than a perversion of ahan-ruba, the *iron-stealer*, the *magnet*.

I have thus completed the view which I purposed to take of the narratives that Ctesias has transmitted to us concerning India. The examination to which his statements have been submitted leaves, no doubt, much that is as inexplicable and as impossible as ever; but it will be perhaps admitted to be as satisfactory as any by which it has been preceded, and to be upon the whole favourable to the reputation of the Greek writer. Whatever may be thought of the individual instances in which an attempt at verification has been made, it will probably be conceded that the general character of the story indicates an Indian original, and that the account is not entirely the audacious invention of Grecian mendacity; that amidst much extravagance and incredibility there do appear glimpses of truth; that the description does seem to have been compiled from information, which, however loose and erroneous, was gleaned by actual travel and observation; and that it presents to us a picture of India, in which, however strange in themselves, or distorted by ignorance and credulity, there are authentic features of the country and its natural productions; and of its people, their usages, their arts, their superstition, and their language: and, consequently, that the authority of Ctesias is of value, as evidence of the existence of many of the characteristic peculiarities of India and the Hindus, such as we still find them, two thousand two hundred years ago.