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ART. I.—*History of the Rise and Influence of the Spirit of Rationalism in Europe.* By the Rev. W. E. H. LECKEY, M. A. In two volumes. New York: D. Appleton & Co. 1866.

History of Rationalism; embracing a Survey of the Present State of Protestant Theology. By the Rev. JOHN F. HURST, A. M. With Appendix of Literature. New York: Charles Scribner & Co. 1866.

Essays on the Supernatural in Christianity, with Special Reference to the Theories of Renan, Strauss, and the Tübingen School. By Rev. GEORGE P. FISHER, M. A., Professor of Church History in Yale College. New York: Charles Scribner & Co. 1866.

The Temporal Mission of the Holy Ghost; or, Reason and Revelation. By HENRY EDWARD, Archbishop of Westminster. New York: D. Appleton & Co. 1866.

THE simultaneous appearance of these and other important works, for and against Rationalism, from such various quarters—sceptical, Papal, and orthodox evangelical—only proves how profoundly the mind of all parties in Christendom is agitated on the subject. These several parties, of course, take very different views in regard to it. The sceptics laud Rationalism

ART. III.—*Indische Alterthumskunde von Christian Lassen*, Vol. III. Geschichte des Handels und des Griechisch-Römischen Wissens von Indien u. s. w. 8vo. pp. 1200.

THE peninsula of India is by its position isolated from the rest of Asia. The broad rivers and lofty mountain chains, almost defying transit, by which it is bounded, are formidable obstacles to intercourse. Capable of supporting a vast population, and blessed with exuberant fertility and abundant material resources, it seemed complete within itself; there was no necessity, and there seemed to be no inducement to open communication with the outside world. It has hence developed a civilization peculiar to itself, which has been wholly shaped by internal and domestic causes; and it has entered but little into the broad current of general history.

Still, remarkable as this seclusion is, it has at no time been total. It has both influenced other lands, and been influenced by them to an extent which will well repay examination. Its precious wares have stimulated trade from the earliest periods to the present. Its fertile and salubrious plains have attracted invaders in ancient and in modern times. Its grand natural features, its strange productions, coupled with its mysterious history, and its hoary wonders, have awakened curiosity, and led to investigations, from which science has received some of its most powerful impulses. It has given birth to a religion which has propagated itself over more than half of Asia. Its extensive literature and subtle philosophy have left their traces on the thought of the world from its fables and romances to the speculations of the schools and the doctrines of the church. Its astronomical and mathematical learning, caught from western lands, received a development greatly beyond anything that antiquity or the middle age could boast elsewhere. It gave the world the arithmetical digits: and had its methods of calculation and their results been sooner known, they would have formed an era in western science and materially accelerated its advance. Its language revolutionized philology, or rather brought it into being; for as now understood it cannot be said to have existed before.

Our present design is not to discuss the entire subject of the relations of India with the rest of the world, but simply to trace those which existed between India and ancient Greece and Rome, so far as they can now be recognized, and to exhibit the influence reciprocally exerted by these two great systems of civilization so widely sundered at once in locality and in character. And in treating of these relations, those which may be called aboriginal shall at present be excluded from consideration, and only those which in contrast may be denominated historical will be taken into account. It is foreign to our purpose to inquire into the primitive connection between the races, that from which the Greeks and Romans were descended on the one hand, and the Arian race that peopled India on the other. Recent investigations into their physical structure, their language, usages, truths, and religious ideas, have developed much that is interesting upon this point. Such a connection has not only been established in the clearest manner, but the measure of its intimacy ascertained, not only as contrasted with tribes and nations, sprung from an entirely different stock, but as compared with other affiliated branches of the same primeval race, and some definite conclusions reached as to the grade of culture in the great Arian family before its various members successively separated themselves from it; and the range of ideas, or fund of traditions, possessed by this aboriginal ancestry, and transmitted to the whole multitude of their descendants.

Dismissing this whole class of questions, attractive as they are, we shall confine our attention to relations established in historical times, and which admit of being historically traced, such as subsisted between them after the races had become distinct, and they had become established as separate nationalities. Thus viewed, our subject spontaneously divides itself into three great periods:

1. That of indirect relations, extending to the time of Alexander the Great.

2. That in which the relations were chiefly military and diplomatic, embracing the reigns of Alexander and his successors.

3. That of commercial intercourse, dating from the extension

of the Roman empire into the east, and particularly from B. C. 31, when Egypt became a Roman province.

Before entering upon this discussion, however, it may be proper in a few words to specify the authorities from which the following materials have been chiefly derived: They are Lassen's *Indische Alterthumskunde*, in four thick octavos, a work of immense learning, in which everything relating to the early history and antiquities of India is elaborately, and, as nearly as may be, exhaustively discussed; Weber's *Indische Skizzen*, which contains four brief but exceedingly interesting and valuable articles relating to ancient India; Ritter's *Erdkunde*, vol. iv., in which there is an extended inquiry into the knowledge possessed of India in ancient times; and Humboldt's *Cosmos*, in which a distinguished place is assigned to the expeditions of Alexander in the development of the idea of the Cosmos, or the enlargement of men's views respecting the world, as one grand, consistent, and organized whole.

Agreeably to the division suggested above, the first period of Greek acquaintance with India is that in which there was no direct intercourse between the two countries. The only knowledge which the Greeks possessed of India or its products, before the time of Alexander, was the vague and uncertain information which reached them through the medium of other nations, especially the Phenicians and the Persians. The Egyptians are not included in this statement, for the reason that there is no conclusive evidence of their having established at this early period immediate communication with India. The expedition of Sesostris is too indefinite and legendary to build much upon it. The similarity of their institutions can be otherwise accounted for. It has been said that cotton coloured with indigo, mummies wrapped in Indian muslins, and pieces of Chinese porcelain, have been found in tombs of the 18th dynasty, which came to an end, B. C. 1476. But this is declared by Lepsius to be a mistake; and even if such articles had been found, they would not establish the existence of a direct trade, as they might have been brought overland.

The Phenicians in the time of Solomon traded with Tarshish, a port of southern Spain in the West, and Ophir in the East. The learned have long been divided in opinion whether the

latter is to be sought in India, or Arabia, or upon the eastern coast of Africa. Weber and Lassen give their suffrages in favour of India, and assign the following reasons: 1. This best suits the conditions of the narrative, 1 Kings ix. 9, 26–28; x. 11, 12. 2 Chron. viii. 17, 18; ix. 21. The vessels were made at Ezion-geber and Elath, and must have sailed out by the Red Sea. The voyage was a long one, occupying three years. The articles obtained were gold, silver, precious stones, sandal-wood, called almug, or algum trees, ivory, apes and peacocks. 2. The names of some of these articles have been explained from the Sanscrit; thus *apes* אַיִם, *κίπρος*, Sans. *kapi*, and with more or less probability *peacocks*, פֶּהָבִים, Sans. *çikhin*; *algum trees*, Sans. *valgum*; ivory שֵׁן הַפֶּהָבִים, lit. tooth of elephants, Sans. *ibha*, an elephant; whence also the Latin *ebur*, and in Greek, with the Arabic article prefixed, *ελεφας*, or *ελεφ-αντ*,* may be equivalent to *aleph-hind*, ox of India. In either case the name of the animal bears testimony that it was first heard of from India, and through the medium of a Semitic people. 3. Ophir has, with considerable probability, been identified with Abhîra, mentioned both by native and Greek writers, which was located at the mouths of the Indus, where it would be convenient of access to the Phenicians, and well situated for interior trade, to which gold could be readily brought from the north, and sandal-wood from the south. A volume of native tales, the Panchatantra, perhaps alluding to the good bargains which the sharp-witted Phenicians were able to make with these simple-minded people, says, “Where there are no men of understanding in the land sea-born jewels are of no value; herdmen in the land of Abhîra (Ophir) sell gems radiant as the moon for three cowries.” 4. To this may be added at least the partial testimony of tradition. Josephus refers it to the Golden Chersonesus which belongs to India. The LXX have *Σουφιρ* and *Σωφιρ*, which is the Coptic name of India. The Arabic translator several times substitutes India for Ophir.

The trade with Ophir must have been very ancient. It was

* Tamarind is similarly derived from *tamar-hind*, palm of India. The Romans who first saw the elephant in the army of Pyrrhus called it *Bos lucanus*, ox of Lucania.

known to Moses, who introduces the name Gen. x. 29. In Job xxii. 24, comp. xxviii. 16, it is used as a synonym of gold, its most valuable commodity. Other Indian products bearing their native names are spoken of in the books of Moses, as bdellium and lign aloes; and in the Song of Solomon *spikenard* בְּרִיָּב and *saffron* or *crocus* בְּרִיָּב.

Another interesting fact in this connection is that the written character of India is of Semitic origin. The possibility of this was doubtfully suggested by Kopp in 1821, who endeavoured to establish a resemblance in the case of five letters. The first effective steps in this direction, however, were taken by James Prinsep, of Calcutta, who, in the Journal of the Asiatic Society of Bengal, for 1837 and 1838, first deciphered the letter upon the most ancient Sanscrit monuments. Subsequent monuments exhibit in regular series the successive changes by which it has been brought to its present form, and the several points of divergence of the various Asiatic alphabets which are based upon it. Prinsep's own conclusion was, "that the oldest Greek was nothing more than Sanscrit turned topsy-turvy." The conformity is so constant and so close as to demonstrate their common origin.

Now it is sufficiently plain that the Greeks did not derive their alphabet from India. Nor on the other hand could India have borrowed letters from Greece. For, 1. Alexander the Great found the art of writing in familiar use among the Hindoos. Strabo quotes Nearchos, one of the generals of Alexander, as saying that they wrote their letters on cotton cloth of close texture. The same thing is implied in what he says of their erecting mile-stones and guide-boards every ten stadia to indicate the distances and the turns of the road. Curtius also speaks of their writing on the inner bark of trees. 2. The oldest native monuments belong to the middle of the third century before Christ, and are therefore not long subsequent to the march of Alexander into the East. Upon these occurs the word meaning "to write," whose radical signification is not that of carving or engraving, but of anointing, and implies in its origin the use of a fluid ink. Inasmuch as there is no indication of letters having been coloured after they were carved in stone, this shows that writing was at that time not merely a

monumental art, but in current use on soft materials. The time when alphabetical writing was introduced into India cannot be accurately defined. It appears evident that the Vedas were at first unwritten, for the orthographic laws often require contractions which conflict with the metre. It has been made a question whether even the *pratiçakhyasutras* or Vedic grammars presuppose a written text.

However this may be, the only conclusion to which we can come is that the alphabets of Greece and of India must have been alike derived from a common source. And this can be no other than the Semitic; the additional sounds required in the Sanscrit being represented by varying the forms of already existing letters. The Phenicians or perhaps the Babylonians must have been their teachers.

From the Phenicians, who maintained an intercourse with India such as has now been described, the Greeks may doubtless at a very early period have become acquainted with some of the productions of India. But the name of the country was not known to them until they learned it from the Persians. Homer speaks of Ethiopians, or men of burnt countenances and dark skins, in both the extreme east and west. Those in the east have been conjectured to mean the Hindoos, as some things proper to them are by later writers attributed to Ethiopians, which might be explicable from this wide usage of the word. The *κασσίτερος* or *tin* of Homer is identical with the Sanscrit *kastira*; though as tin was imported into India, and not exported from it, the word may have been carried thither in the Alexandrian period, as was probably the case likewise with the Sans. *kastûri*, musk, from *καστόρειον*. Many of the fables attributed to Æsop and others are found again in the writings of India. The oldest which has been identified is in Archilochus in the eighth century before Christ. In the opinion of Lassen these were indigenous in India: but Weber, who was originally of the same mind, after further investigation satisfied himself that they were in the majority of instances borrowed from the Greek.

The first knowledge of India properly so called came, however, to the west through the Persians. They had the advantage of being a kindred people and their language was closely allied to the Sanscrit, particularly in its old Vedic form.

Scylax, a Greek in the employ of Darius Hystaspes, led an expedition to the Indus and sailed down it to the ocean, of all which he wrote an account which is now lost; a brief narrative of it is however preserved by Herodotus. The cuneiform inscriptions of Darius make mention of the Gadâra and Hidu, dwellers on the Indus, as tributary to him. They are also spoken of as having served in the armies of Xerxes against Greece, which is the first time that the two nations were brought in any way in actual contact. In the armies of Darius Codomanus, the antagonist of Alexander the Great, there were few Indian auxiliaries, so that the Persian rule in that region would seem to have been less extended or powerful than formerly. He is said to have had fifteen war elephants, which is the first appearance of this formidable animal in history. It is worth while to observe the precise accordance of the statements of the sacred writers with these facts recorded by profane historians. The Ahasuerus of the book of Esther, who is the same with Xerxes, is said (i. 1,) to have reigned from India to Ethiopia over one hundred and twenty-seven provinces. The Darius of the book of Daniel, who is the Cyaxares of Xenophon, had (vi. 1,) but one hundred and twenty provinces. The empire was not so large and had not yet been extended into India.

Herodotus, whose knowledge was derived directly or indirectly from the Persians, speaks of India as lying at the farthest limit of the habitable world, beyond which lay an unknown and impassable desert: it was occupied by many different nations speaking distinct languages. His theory that the extremes of the world possessed the noblest productions, was doubtless based on what he knew of the animal and vegetable wonders of India and of Africa. He speaks of the Indus as the only river known to him beside the Nile, which contained crocodiles, referring of course to the alligators; of the bamboo and its uses, of trees bearing a wool superior to that of sheep and used for clothing, which is the earliest mention of cotton; of an abundance of gold brought down by streams, or dug out by an enormous species of ants nearly as large as foxes and as fleet as horses. It is impossible to conjecture from what this story could have arisen, though it is repeated by subsequent writers, one of whom avers that he had seen their stuffed skins. He also speaks of the

Brahmanical hermits as killing no living thing, and subsisting entirely on the spontaneous products of the earth, having no dwellings, and when sick receiving no attention but dying in solitude.

The most complete account of India that was given to the Greeks during this period, however, was by Ctesias, who was taken prisoner by the Persians, and on account of his skill in medicine was retained for seventeen years as physician at the court of Alexander Mnemon. Among other works written by him after his return to Greece, B. C. 398, was a treatise on India, of which we now possess some scattered fragments, together with a very imperfect abstract by the Byzantine patriarch Photius, in the middle of the 9th century. It is impossible to acquit Ctesias altogether of the charge of exaggeration and the love of the marvellous. Although the fabulous stories, on the ground of which his truthfulness has been impeached, it is now well ascertained, were not inventions of his own, but fictions popularly credited in India, many of which are still found in native writings, and which he reported as he had heard them. Here belong the races of one-eyed men; of one-footed men, who could nevertheless run with incredible swiftness; of men with ears reaching to their elbows, which they used as cloaks; of pigmies three feet high, with domestic animals to match; of macrobians who lived four hundred years, which is very moderate, for Indian writings attribute to them an age of from one to ten thousand years; of water in which nothing could swim, the same doubtless that was fabled to convert everything it touched to stone. It is not perhaps strange that he should have believed that elephants were used in war to pull down fortified walls, when he had seen them tear up palm trees by the roots; or that the reports of India's tropical heat should have been magnified into the statement that the sun appeared there to be ten times as large as in other lands, and that the surface of the sea was so hot that fish could not approach it. These exaggerations and fables were mingled with sober and reliable accounts of the country, its population, and productions. He described India as it was known and conceived by the Persians. One remarkable statement, which seems to imply some knowledge of electrical laws and the power of

metals as conductors, is that he had seen iron swords which had the property of dispelling clouds and lightning.

The era of direct intercourse between Greece and India was opened by the march of Alexander into the East. He entered the country in the spring of 327, and in the course of a year subdued a large portion of the Panjâb. Those native princes who submitted to his sway, he left undisturbed in their dominions and even enlarged their boundaries; while all who offered opposition were severely chastised. Cities were founded and garrisons stationed at important points with a view both to secure his conquests and to facilitate trade. His desire to extend his march to the Ganges was frustrated by the unwillingness of his troops to proceed farther. He consequently built a fleet of boats and sailed down the Indus to its mouth, whence Nearchos conducted the transports homeward by sea, while Alexander with the rest of the troops marched overland to Persia and Babylon, where he died June 11th, B. C. 323.

The political consequences of this conquest were neither deep nor lasting. The Indian provinces being left under their native governors were but loosely attached to the Macedonian empire. And even this shadow of Greek authority was resisted and thrown off by Sandrocottus or Chandragupta. Friendly relations were established between this prince and Seleucus Nicator, which continued through successive reigns, signalized and cemented by the exchange of ambassadors between the courts of Babylon and Palibothra. About B. C. 256, the satrap of Bactria revolted from the Seleucidæ and founded an independent line of Greco-Bactrian kings, whose sway was extended beyond the Indus and as far as Guzerat. This kingdom was subsequently divided and one part overturned by the Parthians; but the eastern or Indian portion continued to maintain itself until about B. C. 85, when it was swallowed up by the advance of the Indo-Scythians. The last relic of Greek government in India thus disappeared about 240 years after its sudden and brilliant beginning.

The indirect results of this conquest were more important. Its effect on the Greek mind was prodigious. Humboldt remarks that the march of Alexander deserves to be entitled a scientific expedition. The boundaries of the known world

received a vast enlargement. The Greeks were led over immense regions hitherto untravelled. They beheld nature in forms never before witnessed, the mighty Himalayas, the broad Indus, a new world of vegetation and of animal life. They were introduced to a civilization totally unlike their own, whose compact forms and hoary antiquity commanded their respect, while it stimulated their curiosity. Particularly the rigour of the ascetics, their strange manner of life, and their contempt of the world and of death kindled their reverence and put an end to the disdain with which they had hitherto looked down upon all barbarians.

Several of the generals of Alexander published such notes as they had made, upon their return. The range of their observation was, however, limited to the line of march. The brevity of their stay prevented any extended and careful investigations, even if these had comported with their soldierly tastes. And the portion of the country through which they passed was the least strict in its observance of the peculiar Brahmanical regulations. By far the most valuable treatise on India belonging to this period was from the pen of Megasthenes, who in the quality of ambassador at the court of Chandragupta had an opportunity of studying not only natural features and productions, but the interior life of the people, their castes, government, religion, manners, and history. Only fragments now remain of any of these works, although enough to give some indication of their character and to make us regret their loss.

This extended knowledge gave a new impetus to science. A multitude of facts was accumulated bearing on natural history. Geography was freed from the crude and fabulous notions previously entertained, and correct conceptions gained of the form and structure of the earth. How utterly vague and erroneous were the opinions which prevailed before, will appear from the fact that Alexander thought he might find the sources of the Nile in India.

The march of Alexander likewise left its impress in the region of Greek mythology and fiction. The worship of Bacchus appears to have begun in Thrace, and he received the name of Dionysos, or the god of Nysa, from a mountain of that name in that region. But as the Greeks extended their know-

ledge of foreign lands new Nysas were discovered or imagined and associated with this favourite deity, and the story of his victorious marches was more and more enlarged. Herodotus heard of a Nysa in Egypt. Euripides speaks of his having marched as far as Bactria. The companions of Alexander found a Nysa on their route, and were ever on the alert for evidences of Greek heroes preceding them. Discovering a people who clothed themselves in skins and branded their oxen and mules with the sign of a club, they set them down as descendants of Hercules. Another people, addicted to the culture of the vine, and whose kings indulged in festive processions with drums and cymbals, were supposed to have sprung from Dionysos. A sacred cave, near which they passed, was assumed to be the identical one in which Prometheus had been bound and from which Hercules had rescued him.

But Megasthenes gave a wider extension and more stability to these legends by interweaving them with the history of India. The only departure from native traditions, with which he appears to have been chargeable, arose from his prepossessions on this subject. He arbitrarily identified Hercules with the hero Krishna, in whom Vishnu the club-bearer became incarnate, though without materially altering the Indian legends respecting him. He seems to have found Dionysos in Siva, but what he says of him was chiefly an invention of his own, and grew out of the theory which he had brought with him from Greece of the progress of civilization and the primitive condition of mankind. And it may be added, that he is not the only writer who has undertaken to reconstruct history upon the basis of his own subjective theory.

In opposition to the Hindoo tradition that the most ancient condition of the race was the most perfect, and that all the affairs of state and of civil life were divinely regulated at the beginning, he represents the earliest inhabitants of the country as nomads, clothed in skins and subsisting on the spontaneous productions of the ground. But Dionysos, leading a host of Pans, Satyrs, and women, marched with drums and cymbals from one end of India to the other, subduing the entire land and teaching the people to plow and cultivate the soil, to worship the gods with processions and dances, and to practise the

arts of civilized life. He at length left India under the government of Spatemhas, or Svayambhuva, the Self-Existent, who was succeeded by his son Buddha, and so on from father to son in regular succession since.

This myth reached its final form in the Dionysiacs of Nonnos from Panopolis in Upper Egypt, an enormous epic still extant in 48 books. The part which relates to India seems to have no basis whatever in any native authorities, certainly not in the Mahabharata or Ramayana from which some have supposed it to be partly drawn. Many of the names of nations and rivers are fictitious, and those of cities and generals are derived from Greek. It is a confused medley of Greek and Asiatic legends transferred to new localities, and of adventures modelled after the experiences of Alexander in this region.

The exploits of Alexander also gave rise to numerous legends which spread throughout the east and have been perpetuated to the present day. Lassen remarks, "It has been the singular fortune of this most gifted monarch of antiquity to have his deeds sung by none but mediocre poets in his own country and in his native tongue, while among orientals and even occidentals whose ancestors stood in no relation to him, he has been celebrated in poems of high repute. In the west he was scarcely less renowned than Charlemagne and King Arthur. He has been, as it were, naturalized among the modern Persians, and incorporated in the history of their heroes by Nizâmi, one of their most distinguished poets in the best period of their literature. No less than ten Persian poets have employed themselves upon these legends. Finally, a story of his life stuffed with fables is a popular book and extensively read among the modern Greeks."

The accounts of India, which we owe to those who visited that country in the train of Alexander, or as ambassadors from the court of his successors, are interesting to us not only as revealing the new impulses communicated to the Greek mind from this remote quarter, but as exhibiting the conception formed of India and Indian institutions by the most cultivated nation of antiquity. They are further valuable in supplementing the knowledge we have of the country and its antiquities, and in supplying chasms in our other sources of information.

One most important service rendered by them in this respect is, that they furnish us a fixed point, which we have no other means of attaining, in Indian chronology, and which is available at once in its history, its language and its literature. We are made acquainted through Greek sources with a number of names of native princes. Many of these do not reappear in any domestic history which has yet been examined. Others are simply the names of nations or countries transferred to their rulers, or they are descriptive titles or epithets, or as in the case of Poros, the most formidable antagonist of Alexander, they are not individual but family names, and can no more be made available for the purpose of identification than Pharaoh or Ptolemy in Egypt, or Cæsar in Rome. But the leader of the revolt shortly after the death of Alexander, presents us with a name that is free from these objections. The Sandracottus of the Greeks is unquestionably the Chandragupta of native authorities. This gives us a fixed point from which all the others can be determined.

Still further, Chandragupta's grandson Açoka was the first king who interested himself specially in the spread of Buddhism within his own dominions and in foreign parts. Several inscriptions graven by him on pillars or hewn in the solid rock, have been discovered in various parts of the peninsula, at Delhi, Allahabad, Guzerat, in Orissa, in the vicinity of Peshâwar and in other places. They are in three different dialects, and contain edicts of substantially the same tenor, exhorting to mutual forbearance and toleration, and to planting trees, digging wells, erecting houses of entertainment and rest for travellers, and doing other things which would be for the public advantage; and they are enforced by the rewards attendant upon such meritorious deeds in this world and in the next. Their date is fixed with certainty by their containing the names of Antiochus, Ptolemy, Antigonus and Alexander. The language in which they are composed shows that the popular dialects were then already forming, from which the various local languages of India have since sprung. Data are here afforded for determining the extent to which this had then proceeded, and consequently of inferring the date of writings in which a corresponding state of the language may be observed.

The Greek rhetorician Dion Chrysostomus says that the poems of Homer were sung by the Indians in their own language, and that the sorrows of Priam, the lamentations of Andromache and Hecabe, and the valour of Achilles and Hector, were well known to them. As this is certainly not true in its literal sense, it can have no other meaning than that poems similar to those of Homer were in circulation. Now the Mahabharata, one of the great Indian epics, does contain passages which bear a general resemblance to those already referred to. It has been plausibly conjectured that this statement of Dion was derived from Megasthenes, who had a more intimate knowledge of Indian affairs than any other writer of antiquity and from whom alone such information could be expected. If this be so, it seems to make it clear that this great Indian epic was then already in existence. And at least a negative conclusion can be reached, regarding the time of the events which it celebrates, from another statement of Megasthenes, that Hercules lived 6,240 years before Chandragupta. Now as according to his belief Hercules was Krishna, whose deeds enter into the theme of this poem, it follows that the great war which it describes was at that time referred to a remote antiquity and could not have occurred, as some have conjectured, but a century before.

The effect upon India of these two centuries of contact was less considerable than that which we have seen to be exerted upon the Greeks. The reasons for this are obvious. The number of native Greeks settled in the country was inconsiderable, a large proportion of the garrisons being mercenaries from various Asiatic nations. Again, they scarcely penetrated into India proper, since they held merely Cabulistan and the Panjâb, districts which were regarded very much as Galilee was by the Jews, and for a similar reason. They were despised on account of their assimilation to foreign manners, and whatever was found in that quarter was hence regarded with suspicion. And further, the exclusive system of caste and a rigorous code of laws and observances laid great restrictions on influences coming from abroad.

Nevertheless such an influence can be traced to some extent. There are several passages in the native writings in which Greeks are spoken of or alluded to. A few words were introduced into

Sanscrit from the Greek, as *thatega* for *στρατηγός*, *dramma* for *δραχμή*, as at a later period *dinâri* for the Latin denarius. The art of coining money was first learned from the Greeks, and was subsequently maintained in slavish imitation of the models they had furnished. Wilson thinks that the Hindu drama is independent of the Greek; but Weber is of the opinion that the former may not improbably have originated in imitation of the Greek scenic exhibitions, since the oldest of them are later than this period of which we are now treating, and belong for the most part to Ozene in the west of the country, the part consequently which was most liable to be affected by Greek manners, and the stage-curtain is called *Yavanikâ*, i. e. Grecian.

The influence of Greek architecture is traceable in the north-west of India. The Hindus also derived from the Greeks their knowledge of the seven planets, the first allusion to which is found in seven points on the coins of the Indian satraps in Guzerat. Their employment to designate the days of the week, which was original in Egypt, and spread thence to other lands, belongs to the next period, a different division of time based on the light and the dark half of the month having prevailed previously.

This brings us to the third and last division of our subject, the period of commercial intercourse under the Roman empire. This trade was carried on over various routes. The least considerable portion coasted along the Persian Gulf, passed up the Euphrates and so overland to the Mediterranean. But as the mouth of the Euphrates was held by the hostile Parthians, the principal overland traffic was forced to pursue a more circuitous route farther to the east and north. The point of departure was Minnegara, the modern Ahmedpur on the Indus; thence it followed the great road still frequented through Cabulistan into Bactria. Here three roads diverged. One led across the Belurtag mountains to Central Asia, East Turkistan, the desert of Gobi, and Thibet, and was the avenue of trade with the seres inhabiting this region. A second took the direction of Herat and the Parthian capital, Hecatanpylon, thence to Ecbatana in Media and through the passes of Mount Zagros to Kalah on the Tigris, and into Asia Minor. The third passed down the Oxus to the Caspian Sea, where the goods were shipped across and

then forwarded to the Black Sea, and so brought down to the Mediterranean.

The disastrous defeat of Crassus by the Parthians, B. C. 53, and the frequent hostilities that followed in that quarter, greatly obstructed, if they did not absolutely prevent all traffic by way of the Euphrates. The route by the Oxus and the Caspian had been open since the death of Mithridates the Great, B. C. 63, but it was tedious and difficult. The reduction of Egypt to the condition of a Roman province, B. C. 30, opened the most direct as well as the most practicable route of all, viz., that by the Red Sea; the advantages of which were much increased by Hippalus' discovery of the S. W. monsoon. Alexandria now at length justified the expectations of its illustrious founder and speedily rose to great consequence, as the centre or entrepot of a trade which was constantly growing with the increasing wealth and luxury of Rome.

According to Strabo one hundred and twenty ships were engaged in the trade with India and the number was subsequently greatly increased. They left Egypt commonly about the middle of July. Thirty days brought them to the ports at the mouth of the Red Sea, whence they sailed in three different directions to Pattalene at the mouth of the Indus, to Barygaza on the Gulf of Cambay, which had the most considerable trade of all the Indian cities, or to Muziris, and other emporia in the southern part of the peninsula. In the latter half of December or the first of January, they set out on their return from the Malabar coast, that they might take advantage of the N. E. monsoon, thus completing their circuit within the year. Cohorts of archers accompanied them for their protection against the pirates which infested those seas.

Pliny states that the annual sum expended in the trade to India was never less than fifty million sesterces, or about two million dollars, and the wares thence obtained were valued at one hundred times that amount. The articles imported by the Romans were Indian iron, which was prized as of a superior quality, and a great variety of precious stones, including the diamond, the art of reducing which to dust for the purposes of the lapidary, Pliny thought to be one of the most wonderful results achieved by human ingenuity. The opal and pearl (*mar-*

garita,) betray their Indian origin by their Sanscrit names. To the above are to be added ebony, teak-wood, a species of oil, rice, sugar, several kinds of drugs, spices, as cloves, cinnamon, cassia, ginger, and pepper; the two last are Sanscrit names, pepper, also being entitled *yavana-priya*, *dear to the Greeks*, where Greek is used with the same latitude that Frank now is in the Levant; also colours, as indigo, a name which points to India, lac, and the vegetable cinnabar; perfumes, as myrrh, spikenard and aloe wood, ivory, tortoise shell, wool, seric skins, so called because obtained from Central Asia, though the species of animal is unknown, the celebrated myrrhine vases, the material of which was so costly that a piece only large enough to make three cups of a pint each, cost from \$1500 to \$3000. Lions, leopards, and panthers were brought for the circus, but not elephants, which were obtained from Mauritania. Roses also were imported for garlands and bouquets. And last, though not least in this enumeration of commodities, are cotton and silk.

The ambiguity of the terms employed by classic writers often makes it doubtful whether they are referring specifically to cotton, or to some other similar material. It can scarcely be questioned, however, that cotton garments, are intended by Herodotus, when he speaks of the Persians, as wearing *σινδονες*, a word which some derive from Sindh or the Indus, and others refer to a Semitic origin. The book of Esther (i. 6,) in describing the rich tapestry in the palace of the Persian monarch Ahasuerus or Xerxes, makes use of the Indian name *סַרְפָּס*, which was subsequently borrowed by the Greeks and Romans. The cotton plant is spoken of on two small islands in the Persian Gulf; but it is doubtful whether it was cultivated in Upper Egypt as early as the time of Pliny. So that beyond question India was at that period the chief source of supply to the Roman world.

Seres and Serica, whence silk was brought, are not proper names of the people and the country, but designations given to them from their staple article of merchandise. They mean strictly silk-men and the silk-region, the words being traced back to *sir*, in Mongolian and the language of Corea, or with the final *r* omitted in Chinese, *sse* or *szu*, a silk-worm. The culture of silk was first introduced into the Byzantine empire

by Justinian in the fifth century, prior to which time India was the principal mart of the silk trade; the overland route to Central Asia being obstructed by frequent wars. From Aristotle it appears that he had no accurate knowledge of the silk-worm, and that few women at that time used silk, although cocoons (the word is Sanscrit) were even then brought to Greece. Under the Roman emperors the use of silk largely increased, although the knowledge of its origin did not keep pace with the employment of the material, for Virgil and Pliny both speak of it as combed from the leaves of trees. A pound of silk in the reign of Aurelian sold for a pound of gold.

The Roman merchants took to India in exchange for the wares thence obtained, copper, lead, tin, silver ware; coral, which is said to have been prized by the Hindus as pearls were by the Romans; stibium, which seems to have been preferred to the native articles employed from very early times in painting the eyelids; a few gems, incense, the edible Egyptian lotus, garments, girdles, and wine, notwithstanding the fact that all intoxicating drinks were forbidden by Hindu law. Their purchases, however, were chiefly paid for in gold and silver. Hence immense quantities of coin were annually carried into India, great numbers of which have been discovered in the most widely separated parts of that vast peninsula, in Cabulistan, the Mahratta territory, the Deccan, and Ceylon. These are of various ages, and by their varying numbers afford a ready indication of the times in which trade flourished most. Coins of the Roman republic have been found, but these must have been brought to India at a later time. Those of the Emperor Augustus and onward to the Antonines are most abundant, showing that the most flourishing period of this trade was from the beginning of the Christian era to the end of the second century. That the commerce continued to be prosecuted after the division of the Roman empire appears from the coins of Theodosios I., Marcianus, and Leon, discovered in Malabar.

The vast commercial enterprises of this period led to great frequency of intercourse. The Roman merchants gradually extended their trips farther and farther, not only to Ceylon, but along the eastern side of Hindostan. By Pliny's time they

must have reached the mouth of the Ganges, for he gives the measurement in Roman miles to that point from Perimula on the island of Manaar, near the northern extremity of Ceylon. And yet, although wonderfully well acquainted with the productions of Hindostan proper, he shows no knowledge of Farther India. The geographer Ptolemy, however, not only states the distance to the Ganges, but beyond it to Malacca or the Golden Chersonesus, and thence even to Kattigara or Canton: and mentions the name of Alexandros, who had reached that remote point. Instances are also given of those who had penetrated Serica to its capital. And a very interesting experience is recorded of Jambulus, son of a merchant, and himself a merchant, who paid a reluctant visit to the Indian Archipelago. While on a trading excursion through Arabia he was seized by robbers and carried with his companions to Ethiopia. He was there, with a single companion, put in an open boat provisioned for six months and sent to sea with directions to sail southward; the idea being that if they reached land in safety, Ethiopia would enjoy six hundred years of peace and prosperity, but if they put back or were driven back, they were subjected to the most frightful tortures, because of the calamities this would be sure to bring upon the country. After four months tossing about upon the sea, they reached the shore of an island where they remained seven years, at the termination of which they were sent to sea again and finally driven on the coast of India, whence he returned home and published an account of his travels. From his description of the island, its productions, among which was the sago-palm, and its inhabitants, who were divided into castes like the Hindus, and were governed by similar laws, it is plain that it was Bali, which, like the neighbouring Java and Madura, was at a very early period colonized from India. He speaks of their possessing an alphabet of twenty-eight letters divided into seven classes, which is substantially the Sanscrit alphabet, adapted perhaps to the peculiar sounds of the native language.

The frequency with which Hindostan was visited by traders from the west is farther shown by the copious lists of cities which Ptolemy was able to give. He reports fewer from Farther India for a double reason, both because being less civilized

it did not contain so many cities, and because being more rarely visited, these were less known. Another fact still more conclusive, is that several cities in both the Indian peninsulas and in Taprobane or Ceylon, bore Greek appellations, either originally imposed, or translations of the native names. These must have been factories, or places where considerable bodies of foreigners stationed themselves with more or less permanence for purposes of trade.

In this trade the Indian merchants also took an active part. That portion of it which extended beyond Hindostan to Farther India, the Indian Archipelago, and Canton, was almost exclusively conducted by them. They also participated in the trade to the westward. Settlements of Indian traders are known to have existed on the coasts of Arabia and Ethiopia, and on the island of Socotra or Dioscorides, whose name is perhaps Sanscrit. Many of them established themselves in Egypt, and they were emulous of a share of the trade between Alexandria and Western ports. They are particularly spoken of as visiting Lacedæmonia.

Cornelius Nepos relates an incident, which can hardly be explained on any other hypothesis than their vigorous participation in the overland trade likewise. He says that when Metellus Celer was proconsul of Gaul, B. C. 60, some Indians were sent to him by the king of the Suevi, who had been engaged in trade but had been driven by storms and adverse winds completely out of their course. Now unless we suppose that they had entirely circumnavigated the continent of Africa, the only other alternative would seem to be that they were pursuing their avocation upon the route across the Caspian and Black Seas, and were driven by stress of weather to the northern shores of the latter, where they fell into the hands of the Suevi and were dealt with in the manner already mentioned.

The competition among the native princes for the trade with Rome, and their desire to obtain a full share of its benefits, may also be inferred from the repeated embassies sent from India to the Roman emperors, doubtless with this view. Thus we read of one from a king by the name of Poros, to the emperor Augustus; another from a king in Ceylon to Claudius;

a third from a king on the Malabar coast to Antoninus Pius, and a fourth was sent to the emperor Julian.

The effects of this increased intercourse upon the west, on one hand, and upon India on the other, are yet to be considered. No assimilation of Rome and India is to be expected. They were too remote, and too unlike, and the proportion of actual traders to the entire population of either country was too small for us to look for such a result.

It may be said, however, to have accelerated the fall of Rome, by tending to increase and pamper its luxury, by enormously enriching one class, the merchants, at the expense of the rest, and by the prodigious drain of the precious metals which, as has already been stated, it occasioned.

Its intellectual results were, however, of greater importance than its political consequences. The mind of the west received a powerful impulse on the one hand, from the vast additions now made to the knowledge previously possessed of the world and of natural phenomena, and on the other, from contact with the strange and striking forms of Hindoo thought and life. The personal observations of Alexander's generals, or the notes of subsequent merchants and travellers, furnished the data by which Eratosthenes, Hipparchus, Strabo, and Ptolemy, not only reached surprisingly accurate conclusions respecting these hitherto unvisited lands, but were greatly aided in working out the problem of the form and dimensions of the habitable earth and of the globe itself. They furnished the data likewise from which Pliny drew largely in composing his *Natural History*, that encyclopedia, as it has been well called, of the knowledge of the ancients. And even the errors, into which the ancient geographers were betrayed by these authorities, had an important connection with the greatest discovery of modern times. The imperfections in the mode of reckoning distance in marches and voyages made it impossible for the most careful to attain strict accuracy. But the itineraries, which were then the principal sources of information, did not even aim at the precision demanded by science. When the distance was extended to hundreds or thousands of miles, the margin of possible error became necessarily very great. In latitude, these errors were capable of at least partial correction by the statements made

respecting climate and productions, or the length of the longest day, or the direction of the shadow at noon, or the proportion between the shadow on the dial-plate, and the gnomon by which it was cast, whence the polar altitude might be readily calculated. But in computing the longitude no correction of this sort was possible for even the gravest errors, and the more remote the place the more considerable the error becomes. Thus Ptolemy gives the latitude of Cabul within 24 minutes of the truth, but the longitude which he assigns to it is 28 degrees in excess. At Madura the error of longitude is 30 degrees, and at Canton 46. The limit of the eastern continent was thus conceived to lie far beyond its actual position, and the task which Columbus proposed to accomplish by his western voyage was to that extent reduced.

Some of the doctrines of the Gnostics and the Neoplatonists were plainly borrowed from or modified by those of the Indian philosophy. This influence is apparent in the philosophical tenets of Plotinus, and Porphyry, as well as in the Gnostic ideas of emanation and the demiurgos, of the evil inherent in matter, the virtue of asceticism, obtaining direct communion with God by the mortification of the senses and profound meditation, and thus attaining to miraculous powers, the division of men into the three classes of *πνευματικοί*, *ψυχικοί* and *δλιχοί*, etc.; while monachism, celibacy, the veneration of relics, bells, rosaries, the tonsure, and the like, betray a Buddhist origin.

On the other hand, the Hindus learned their astronomy from the west, and seem to have been subjected to some influences from the Christian church. Some peculiarities were introduced into the worship of Krishna, and some modifications made of the conceptions previously entertained of him, which seem to have been derived from the worship of Christ. There are also some strange approximations to the ideas of a personal supreme God, and the sovereign efficacy of faith in him, which seem as if they must have been borrowed from a Christian source.