The Period of the Indus Valley Civilisation:

It was the dominant position of India in the Indian Ocean, its location in relation to the early centres of civilisation in the Nile Valley, Mesopotamia and the Huang-Ho-Yangtze Valleys, and its accessibility both by land and sea to the territories surrounding the Indian Ocean and its tributaries, that permitted India and particularly the western coast ports, to engage themselves in a trade from the Mediterranean to the Pacific long before the dawn of history. The Gujaratis, though not known by the name in the ancient past, were one of the foremost of the seafarers in this region to open up trade with the Persian Gulf coasts, the Nile Valley, the coasts of Africa and Arabia towards the west, and with Burma, the Malaysian-Indonesian Archipelago, China and Japan to the east. But the Gujaratis were not alone in the field. The people of the Arabian coasts, sandwiched between sea and desert, looked to trade with lands across the seas to eke out a living, from very early times. So also did the coastal people of maritime India beyond Gujarat. Archaeological evidences corroborate the existence of a trade between the people of India and those of Sumer (Mesopotamia), the Nile Valley (Egypt) and the Far East as far back as the Indus Valley Period.
The bulk of the trade of India during the period of the Indus Valley Civilisation, which reached its zenith in 2500 B.C. seems to have been to the West, to Mesopotamia, the coast of Arabia, the Nile Valley and across the Fertile Crescent to the Mediterranean. But this notion of a closer contact with the west may be due to the fact that the European scholars rooted in the Greek School of Thought, have shown greater interest in documenting the history of the Mediterranean people and their trade connections across Egypt and the Fertile Crescent to the east than in India's contacts with the Far East. Further studies may correct this viewpoint.

Long before the Aryans came to India, the date of which is fixed at 1500 B.C., a great civilization, comparable to that of the Nile Valley and Mesopotamia, flourished in the Indus Valley. But it was not confined to that valley. The Indus Valley Culture (Mohenjo-daro-Harappan) was the most extensive of the ancient civilisations in area. According to B.B.Lal, it extended from the seaboard of south Baluchistan in the west to the upper Ganga-Yamuna Doab in the west and from the sub-Himalayas in the north, to the Kim river in the south (including Broach), covering an area of 1600 kms. from east to west and 1100 kms. from north to south.\(^{(1)}\) Future discoveries of Indus Valley sites may prove the present limits of the culture to be a moving frontier. Excavations in Lothal, not far from the Gulf of Cambay, Surkotada, 270 kms. north west of Ahmedabad and in Rangpur reveal the existence of the Indus Valley culture in Saurashtra, Kutch and
Mainland Gujarat.\(^{(2)}\) Besides, many Palaeolithic, Neolithic and Chalcolithic (Bronze age of the Indus Valley culture) sites have been discovered in the Valleys of the Narbada and its tributaries, the Orsang and the Heran by H.D. Sankalia. Tools of quartz and quartzite of the Palaeolithic Period were found in Kundia Nala, Bahadarpur, Wadeli, Bodeli, Bhulwan, Dokeriya, Sigam Kanbi and other places in the Narbada-Orsang-Hiran valleys.\(^{(3)}\) Many of the sites show a continuity of the culture from Palaeolithic to Chalcolithic and further. The lower layers of the site at Maheshwar on the Narbada date back to the Palaeolithic Period and the site reveals a continuity in material advancement. Maheshwar (Mahishmati) was strategically located at a river crossing, perhaps at a spot which was the limit of upriver navigation in the ancient period.

The Harappan was essentially an urban culture based on trade supported by agricultural surpluses and forest products.\(^{(4)}\) The two thousand and odd seals discovered in the ruins of the Indus Valley sites appear to be tokens used by merchants.\(^{(5)}\) The Palaeo-Mediterraneans, probably Dravidians, who came to India before the Aryans, were town builders and traders. Excavations in the Indus Valley sites reveal a continuous growth of an economy from village to town and from subsistence agriculture to commercial agriculture and exchange economy. The earliest people of the Indus Valley seem to have eked out a living by subsistence agriculture, probably supported by hunting. The proto-Australoids,
who preceded the Palaeo-Mediterraneans, are known to have introduced agriculture, not only to India, but also as far as the Pacific Islands. The beginnings of the Indus Valley culture may therefore be attributed to the proto-Australoids. The middle layers of the excavated sites of the Indus Valley towns reveal a highly developed culture of an urban people who supplemented their income from land, by extensive commercial activities. The urban revolution in the Indus Valley settlements came about 2500 B.C. The Palaeo-Mediterraneans (Dravidians), who followed the proto-Australoids were an urban people who built towns and engaged themselves in trade. The Indus Valley culture is believed to have reached its zenith by 2500 B.C. and to have gradually declined by about 1700 B.C. nearly 200 years before the date of the Aryan incursions into India. It may be concluded therefore that the urban revolution in the Indus Valley settlements and the introduction of a commercial economy took place with the advent of the Palaeo-Mediterraneans or Dravidians. It can at least be said for certain that it was pre-Aryan if the date of the Aryan invasion of India is 1500 B.C., as so far accepted without dispute. The top most layer of the excavated sites of the Indus Valley settlements show a period of decline and a reversal to a village life and subsistence economy. The cause or the decline is not yet finally proved but it was rather sudden. Suggestions such as the shifting of the river channels, invasion and war, famine, natural calamities etc. have been put forward as being responsible for the decay of the Indus culture.\(^6\) It is also proved that the date of the decay is not the same in all the
settlements. Those settlements which were sheltered from human and natural calamities probably continued longer than those which had to bear the brunt of invasions, floods, famines etc. But on the whole the commercial and urban economy of the Indus Valley people lasted from 2500 B.C. to 1700 B.C.

In the Indus Valley towns are also found the same kind of specialisation in crafts as in Mesopotamia and the Nile Valley. The processes used in the Indus Valley towns are however almost identical with those of Mesopotamia and somewhat different from those of the Nile Valley. This fact led to the conclusion that the commercial and cultural contacts of the Indus Valley settlements in India were closer with Mesopotamia than with the Nile Valley. The nearness of the Indus valley and the western coast of India to the Persian Gulf by sea and of the north west of the sub-continent, as a whole, to Mesopotamia by land make this contact not only a possibility, but almost inevitable. Despite similarities in culture and processes, all these areas of ancient civilisations surrounding the Arabian Sea and its tributaries had a distinctiveness of their own. Weavers in the Indus Valley towns worked in cotton, those of Egypt, in flax and those of Mesopotamia in wool. The chemistry of glass was understood by the Indus Valley people. Vases made of tin glazed earthenware have been unearthed and attributed to these ancient people. They used carts with solid wheels for land traffic and boats for river and sea traffic. Many of the products for the industries of the Indus Valley settlements must have come from
long distance and from overseas and assembled in particular places where nature, in the form of navigable rivers or mountain valleys and basins gave the facilities for convergence and distribution. Products such as tin, gold, precious stones, lapis lazuli etc. seem to have come from overseas while others such as wood came from the Himalayas, copper from Rajasthan and Baluchistan and shells etc. from the Deccan. The large quantity of such goods from the ruins of the Indus Valley settlements suggest an extensive trade between them and the areas of civilisation round about the Arabian Sea.

About the same time the Indus Valley culture reached its zenith, the Nile Valley was brought under one rule by Menes, the chief of the Falcon Clan. He united the valley and the delta into a single State in 3000 B.C. and built the city of Memphis on the Delta. A king of Dynasty II (Dynasty I-II 3000 B.C. to 2800 B.C.) built canals to facilitate movement of goods by water as well as to increase agricultural production. There is geological evidence that during the Miocene and Pliocene periods the Mediterranean and the Red Sea were connected in the area of the Isthmus of Suez. In pre-historic times and in the ancient historic period much of the present canal route was a bay of the Red Sea. Some sort of a navigable channel between Suez and the Pelusiac branch of the Nile was maintained, although intermittently, from the 2nd millennium B.C. until the 6th century B.C. when an improved canal was constructed by
Pharoah Necho and completed by the Persian Emperor Darius I. The Pelusaic tributary of the Nile does not exist now, but its course was from the west of Zazuzig to near the modern port of Said, 15 miles east. Pelusium at the mouth of the tributary of the Nile was the old outlet to the Mediterranean. The Canal of the Ancients across the Isthmus of Suez ran from near Suez, through the Bitter Lake to the present site of Ismailia. It then entered the Pelusaic branch of the Nile through the Wadi Tumilat. Although the canal was not in use continuously, it existed up to 776 A.D. when it was closed by the Abbasid Caliph Al Mansur to cut out supplies to Mecca and Medina which were in revolt against the Caliph. From this report of the Abbasids, it is proved that the canal of the Ancients connected the Nile Valley to the ports of the Arabian Coasts and the Red Sea.

Under the Pharoahs the Nile Valley Civilisation reached its zenith. The pyramids were built during Dynasty IV of the Old Kingdom (Old Kingdom = Dynasty III to VI 2800-2500 B.C.). The Dynasties of the Old Kingdom, Middle Kingdom and the New Kingdom bring the history of Egypt up to 1100 B.C. Under the Pharoahs industries and commerce flourished. The Nile Valley artifacts had a distinctiveness of their own. Separate functions were attributed to the different sections of people as in Aryo-Dravidian India. There were smiths, carpenters, masons, boat builders and other functional groups who engaged themselves
only in their own particular trade. Specialisation in manufacture necessitated exchange and a certain amount of movement of goods. With the beginnings of Dynasty I, (3000 B.C.) (According to Breasted 3400 B.C. and according to Meyer 3200 B.C.), there is even evidence of a foreign trade. Many foreign materials such as copper, gold, ebony, perfume, spices and precious stones were found in the tombs of Egypt. There is also record that even as early as 3000 B.C., the kings of Dynasty I sent military expeditions to Hadramaut to secure the valuable incense and myrrh which were used in the making of perfumes. They knew Socotra as the land of incense where Indians, Arabs and Egyptians met to exchange goods. The Indians called it Dvipa Sukhadara. Thebes at this time seems to have been a flourishing market town of the interior which controlled a land route from the Nile to the Red Sea coast because Lenormant says that the bas reliefs of the Temple of Deir-el Bahari of Thebes which depicts the conquest of the land of Pun under Hitasu, the booty carried by the Pharohs was considerable and that it included many articles from India such as Elephants' teeth, gold, precious stones, sandalwood and monkeys.

Wilkinson mentions that indigo, tamarind wood and other Indian products were discovered in the tombs of Egypt and that the muslin cloth dyed in indigo was definitely of Indian origin. The Pharohs used the muslin for wrapping the mummies. The export of muslin from India therefore dates back to the days of
the Pharoahs. Whether Broach was a port of its export is not known, but it can be inferred only by its favourable location and the antiquity of India's textile industry.

In Sumer also (Persian Gulf Region) a city civilization and commercial economy emerged about 3000 B.C. and continued long after the Egyptian civilization began to decline at the end of Dynasty IV (2475 B.C.). The urban population of Mesopotamia came to be in need of copper, bronze, timber and stones for their querns and door sockets. Equally necessary for their temples were gold, silver, lapis lazuli, precious stones, lead, incense etc. There is evidence that much of the gems, shells, seals, amulets, beads and pottery which came to Mesopotamia were of Indian origin, but it is difficult to say from which port they were exported.

Lamberg-Karlovsky discussing the mechanisms in the trade relation between India and Mesopotamia during this period divides the mechanics of trade into three major types namely Direct Contact Trade, Exchange Trade and Central Place Trade. Direct Contact Trade between the two centres of civilization, he says, can neither be proved nor negated by archaeological evidence. Direct trade is conducted without the assistance of intermediary sites, that is, exchange takes place between two centres directly. There are a handful of seals, beads and terracotta statues discovered in Mesopotamia but they cannot be used as evidence of a direct contact of the Indus
Valley traders with Mesopotamia. This type of trade, being centrally organised, necessitates the administration of one or the other of the two centres in the form of merchant colonies or trading centres. Lamberg-Karlovsky argues that the principal evidence of direct trade contact between the Indus Valley and Mesopotamia "should be found in the seals, sealing impressions and textual data of one culture found in the other". If the Indus traders were in Mesopotamia, or the reverse, they would have sealed the goods shipped back by their own seals. No Mesopotamian seals or texts have been found in the Harappan sites. But Indus type impressions have been found at Umma in Mesopotamia. There is no other evidence of an Indus Trading Colony in Mesopotamia in the form of a distinctive architectural type. The reverse is also true. The occurrence of Indus seals in Mesopotamia does not, therefore, conclusively prove a direct contact.

But Karlovsky goes on to say that Exchange or Indirect Contact Trade can be accepted. An Indirect trade is a form of dissemination of goods in an informal way. It lacks a definite organisation nor is there any standardised value for any specific material. Goods passed from place to place without design or purpose. It is an arbitrary exchange from site to site. In such an exchange it is difficult to distinguish between objects brought to a site by exchange and those independently produced through the diffusion of a style. Materials occur
both in Mesopotamia and in the Indus Valley sites which support the theory of exchange indirectly. But it cannot be said that it was a reciprocal trade. The objects discovered do not confirm reciprocity. They are simple objects, beads, animal headed pins etc., not classes of goods which can be called necessary or luxury goods. The varied material seems to have passed from hand to hand, site to site and they appear in sites from the Indus Valley centres to Mesopotamia. Such objects believed to be of Indus Valley or West Asia origin found outside either area include metal (Mohenjo Daro) bronze or copper knife (Hissar) of the Harappan type, ceramics (evidence of trade between the Indus settlements and Mesopotamia), figurines (found in Mesopotamia which are distinctly Indus) dice (Indus type found in Mesopotamia), beads (from Indus to Mesopotamia) etc. But the artifacts discovered, according to Karlovsky, do not provide enough evidence of a co-ordinated effort towards mutual exchange between the two centres of civilisation.

Exchange between the two, must have thus been through Central Places. According to Karlovsky certain centres had natural resources or they also produced goods. These may have been located beyond either of the two areas between which exchange is supposed to have taken place. These sites or Central Places acted as points of transhipment, and exported not only its own materials but also materials that came to it
for distribution. The resources and the organisation of the transhipment of goods at the central places may have been under the control of one or the other of the exchanging countries or they may have functioned independently of either. These central places may have had trading colonies from the countries exchanging goods in which case there was a direct contact established between the Central Places and the country in question. Such Central Place Trading is evidenced both in Mesopotamia and the Indus sites.\(^{18}\) At Bahrain in the Persian Gulf were found Indus weights and at Lothal not far from Ahmedabad were found Mesopotamian seals. The urban development of Shahr-i-Sokhts, Yahya, and Iblis in Mesopotamia was partly the result of the demand for steatite mineral ores, lapis, lazuli etc. in the metal and mineral poor area of Mesopotamia, necessitating its contacts with the highlands of Iran. It later on gave rise to the Uruk City State type of socio-political structure. Such a development of central places is seen in the area of the Indus Valley Culture also from 3000 B.C. Throughout the area of Indus civilisation can be seen such nucleation of sites, based on a trade economy. Broach must have been one of the Central Places during the Indus Valley Period. It was near enough to Sumer and had natural facilities.

About the 3rd millenium B.C. Elam rose between the Indus Valley and Mesopotamia. All overland routes from the Indus
Valley sites to the Mesopotamian Valley had to pass through Elam. Relations between Mesopotamia and the Elam thus became strained. Mesopotamia needed products such as timber, metallic ore (lead, copper, tin and silver), stone (alabaster, diorite, obsidian etc.), semiprecious stones, horses etc. The campaigns of the Sumerians and the Akkadians against Elam were to gain control of these resources. It is possible that after the rise of Elam the direct trade between the Western coast of India and the Mesopotamian region was prevented by the Elamites and that perhaps the two countries established sea contacts to bypass Elam and the land route across the Persian-Afghanistan Plateau. But the civilization recovered as the Babylonian civilization.

The discovery of Indian type of beads, dice, square seals of steatite and glazed paste, shell inlay work and many other objects in Kish and Ur (Mesopotamia), the similarity in the designs of the clay animals of Sumer and the Indus etc. speak of a close cultural and commercial link between the two regions. A vase from Diyala in Sumer depicts an Indian cult being celebrated in Akkad. Lassen also confirms that trade between the coasts of Western India and the Persian Gulf-Arabian coasts is as old as humanity, whatever the mechanism used.

The close proximity of the Punjab, Sind and Gujarat with Sumer, the Arabian Coast and Egypt, with convenient anchoring places for the sailing ships and possessing a prosperous hinterland with well developed market centres on the trade
One of the characteristic features of this ancient trade is that both manufactured goods and raw material were exported and imported from the centres of civilisation. There was no exploitation of the raw material of a less developed area to support the manufacture of a more advanced region. Exchange took place in manufactured goods of the different regions because they were distinctive in character and thus were appreciated by the other. Thus seals and toilet sets from Mesopotamia moved to India while Indian seals and toilet sets were imported to Mesopotamia. However, there is no doubt that the craftsman of this period produced for a market. (22) The mention of a shipbuilding industry in Egypt and the Indus and of the existence of large ships, 170 feet long, suggest that part of the trade at least was across seas to distant lands. There is also mention of oars and caravans which bear proof of trade by land over great distances.

Conditions of trade were very exacting. Caravans had to cross swamps, deserts and mountains. Flotillas had to work their way through tortuous river channels, brave the perils of the open waters of the Arabian Sea, the Persian Gulf and the Red Sea to reach their destination. Both sea and land traffic were necessarily through territories of alien tribes who had to be placated by bribes or forced by threat to permit passage, and supply the necessities required by traders on long distance
voyages. Often the trade was conducted by pastoralist nomadic people who occupied the fringes of the settled areas of civilisation. But there are evidences of central places which were permanent colonies of traders and which collected and disbursed freight and cargo. Trade was undoubtedly one of the most potent factors in the diffusion of cultures in the ancient world.

What form of currency was used by these very ancient traders to facilitate their extensive trade is not known. Trade was mostly by barter and from site to site. Perhaps seals were used as tokens by the merchants. But whatever medium was used there is no doubt that the trade was extremely profitable. The many commodious and spacious houses of the merchants of the Indus Valley settlements excavated all over, indicate that a strong prosperous merchant community existed at this time.

The Advent of the Aryans. That the trade survived through the declining period of the Indus Valley Civilisation and continued after the Aryans entered India, is proved by archaeological and literary evidences. Mr. Kennedy is of the opinion that the trade of Aryan India was in the hands of the Dravidians although Aryans had a share in it. Perhaps the advent of an alien tribe forced the Dravidian traders to set up more permanent trading colonies overseas. They gradually settled in Arabia, on the east coast of Africa and even on the coasts of China. There is no doubt that they had settlements in Babylon.
The Aryans are also believed to have come to India across the north western mountain gaps from the Aralo-Caspian region, where before they entered India, they seem to have known and mixed with the Dravidians. They also knew the proto-Australoids. Their migration was perhaps a slow process. Taking refuge in the mountain basins when fresh invasions ravaged the Mesopotamian Valley, they must have remained in these mountain retreats long enough to become characterised in area, before they entered the Indus Plain. The first of the Vedas, the Rigveda, was written somewhere in the land of the Hindu-Kush-Pamir-Suleimen-Indus region. The Aryans were a nomadic tribal people who came to the fertile valley of the Indus (1500 B.C.) in search of pasture for their cattle. By the time they reached the Indus Valley, the ancient river valley civilisation, with its brilliant record of trade and urban culture, had come to an end. The new race of people gradually settled down to sedentary agriculture and village life similar to that found in the earliest period in the Indus Valley sites. The culture of the Aryans was very inferior to that of their predecessors. They had no script till much later whereas the Harappans had used a script. They also seem to have looked down upon trade as indicated by certain passages in the Rigveda which refer to "the greed of the merchant community who seek profits in distant lands and to their activities which knew no bounds". By 700 B.C., however, the Aryans seem to have absorbed much of the culture of the earlier settlers and evolved from Tribe
to Kingdom in the Gangetic valley and made Aryanisation the hallmark of respectability in the subcontinent. Thus developed the Dravido-Aryan culture of India with its roots in the proto-Australoid culture.

In the Vedic literature, there are references to the industries of India such as weaving, tanning and metallurgy. But whether the Aryans themselves were engaged in these or they were carried on by the earlier settlers is not known. Weaving was both in cotton and wool, and both men and women were engaged in it. There was also the carpenter, the blacksmith, the goldsmith and the tanner in Vedic India all of whom worked in corporate partnership. The carpenter was a very versatile craftsman. He constructed houses, built chariots, carts and ships, carved wood and made all kinds of wooden articles for daily use. The blacksmith was equally versatile. He made swords, scythes, razors, spears and ploughshares. The tanner made articles ranging from bow strings to large caskets for holding liquor. Radhakumud Mookerji is of the opinion that class distinctions based on occupation were already noticeable in the Vedic Period, that industry and other functions were well organised into Srenis under the headman, the Sreshtiya. These Srenis were autonomous and had laws, rules and regulations of their own and may well be the fore-runners of the later guilds. They most probably existed during the Harappan period. (27)
The source of income of Dravido-Aryan India was not from land alone. Trade and industry are both mentioned as leading occupations of the people. Towns such as Ayodhya, Kasi, Kausambi, Champa, Rajagriha, Vaisali, and Sravasti could not have existed without trade and manufacturing and a surplus in agricultural products. In addition, there were towns on the great trade routes such as Takshashila, commanding the Khyber route (Dakka pass), Ujjain, commanding the Malwa route, and Mathura on which converged the routes from the Indus and the Ganges. There were also several riverside settlements which developed as trade centres, because of their accessibility by water. These trade towns had wider economic contacts than the administrative or temple towns. The port of Bharukachcha is mentioned as one of the major trading centres of Dravido-Aryan India. That the Aryan culture was supplanted on an earlier culture in Broach is proved by a legend which describes its foundation by Sage Bhrigu, from whom the town is believed to have taken its name (Bhrigukachcha). \(^{28}\) The establishment of towns and ports by sages is found repeated in a large number of settlements in India. This must have been at a time when the Aryan way of life and the Aryan pantheon of gods were introduced into the older culture, through persuasion and preaching and by establishing the superiority of one over the other. Some time between 1500 B.C., when the Aryans first entered India, and 600 B.C., when their kingdoms in the Indo-
Gangetic Plain began to decline, a fusion of the two cultures must have taken place. At first it was perhaps achieved through aggressive wars, but later when the number amongst the Aryans dwindled to a dangerous minority, the fusion was achieved through alliances, persuasion and acceptance. Broach seems to have gone through a period of Aryanisation either effected by an earlier wave of Aryans who came by way of the Indus-Sindi-Cutch-Saurashtra route and the Mount Abu route through Rajasthan or by a later thrust of the Aryans who came to Gujarat from the Gangetic plain by way of the Malwa route.

Many of the towns of Vedic India, whether administrative trading or temple towns, developed special crafts which necessitated carriage of raw materials from different parts to the centre of manufacture. The finished material had also to be distributed amongst the consumers. This necessitated a certain amount of movement of goods. Probably the trade of the early Aryans was a land trade confined to a small region. But as their kingdoms grew in size, many of the earlier ports with a flourishing overseas trade came within the control of the Aryans or became Aryanised. There are references to sea going voyages undertaken for commercial purposes in the Rigveda. One passage speaks of Varuna having full knowledge of the ocean routes, a second refers to merchants sending out ships to distant lands, a third to the greed of the merchants which prompted them to take risky journeys to foreign lands. There are also references to ships which went out to conquer
distant lands. Tugra, the Rishi King, sent his son Bhujjya, against his enemies, but was shipwrecked by a storm. He was rescued by the Aswins. Ships seem to have been used both for trade and war. But while trade activities are referred to with some disdain in the Rigveda, the war ships are often described as being under the protection of one or the other of the Aryan gods suggesting that Aryans probably did not indulge in trade and that it was carried on by a non-Aryan people probably the earlier Palaeo-Mediterraneans or Dravidians.

The trade of Vedic India continued to be with Mesopotamia, Egypt and the Fertile Crescent to the West. In the Mosaic Period (1491-1450 B.C.) precious stones, which were a great speciality of India, were known in Assyria and Egypt. The Assyrians had by now established themselves in the upper Euphrates-Tigris valley and imbibed the culture of the Sumerians. The Book of Genesis mentions that "a company of Ishmeelites came with their camels bearing spicery and balm and myrrh to Egypt." In the days of the Jewish King Solomon (1015 B.C.) ivory, garments, armour, spices and peacocks were supplied to Syria from India. Ivory is mentioned as an article of export from Broach at a later period. Probably Broach got its ivory from Africa. The antiquity of the ivory trade of India with the Mountain of the Moon and Nyanza Lake is referred to in the Puranas. The throne of King Solomon was made of ivory and gold. It is reported that his navy brought him ivory,
gold, silver, apes and peacocks every three years from a region stretching from the African coasts to the coasts of India. In the Book of Ezekiel is mentioned commodities of Indian origin in the trade of Sidon and Tyre such as ivory and ebony. Ezion Geber at the head of the Gulf of Aqaba is mentioned as a port where King Solomon set up a navy and sent ships to India to bring gold, precious stones and almug trees. Blue cloth, embroidered work, rich apparel, horns of ivory and ebony are amongst the commodities mentioned as presents for the King. King Solomon was anxious to gain entry into this trade with the East and appropriate a share of the profits for his own people. He built rest places for the caravans at Tadmor (Palmyra) Baalbic (Heliopolis) and Hamath (Epiphania). His fleet made periodic voyages from Ezion Geber to the Red Sea and to the Persian Gulf. Babylon Ctesiphon, Seleucia and Ossis in Mesopotamia flourished on the profits of the Eastern trade while Rhinocolura was a well known Phoenician settlement, its site chosen because it was the nearest port of Phoenicia in the Mediterranean to trade with India. The period of King Solomon coincides with the Aryan settlements of at least north western India if not in the Gangetic (beyond the Aravallis).

The Ramayana which was obviously written after the Aryans established themselves in the Middle Ganges Valley and moved from Tribe to Kingdom, also refers to ocean going vessels and India's sea connections with distant lands. The Kishkindha Kandam relates the directions given by Sugriva to his army
"to go to the cities and mountains in the islands and sea". In another passage the land of Koshakarsha is mentioned as the likely place of Sita's concealment, which is generally interpreted as China. The Ramayana also mentions Mathura, founded by Madhu, Kausambi, Varanasi (Kasi) and other towns which were capitals of Kingdoms as well as inland market towns. The roads, says the Ramayana, were scientifically planned and maintained. It also mentions merchants who trafficked beyond the seas and brought presents for the king. (39)

Another passage in the Ramayana mentions Yava Dvipa and Suvarna Dvipa identified as Java and Sumatra. (40) Some of the spices, ivory, silks etc. which are referred to as Indian products in West Asia and Egypt at this time probably came from the Far East and China. It is known that India exported pepper to the Persian Gulf towns long before the Persian Empire was established. But the trade was confined to the Persian Gulf ports. The use of pepper spread to Egypt and the Levant only with the expansion of the Persian Empire to these areas. (41) The pepper which was exported from the Gujarat coasts must have come either from the Malabar coast or the Far East. The Far Eastern trade of India figures rather prominently in the Ramayana. In this early eastern trade perhaps the Kalingas took the initiative. The Chilka Lake was an excellent anchorage for the sailing ships and it is reported to have been "crowded with ships from distant lands". (42) It is even
believed that Bali of the Ramayana was the King of Kalinga. However, Broach also figures as one of the ports which established contacts with the Far East from very early times.

There is no doubt that cotton fabrics formed one of the major articles of export. Indians were acquainted with the art of weaving even in the days of the Indus Valley civilisation. During the early Vedic Period weaving in both cotton and wool was known to have existed. In the barter trade of the Indian Ocean, cloth from India was a priced commodity.

In the Mahabharata are accounts of the Rajasuya sacrifice and the Digvijaya of Arjuna and Nakula in countries outside India and of intercourse with these countries. Shéhadeva is said to have conquered the "land of the Mlechchas beyond the sea". The Drona Parva gives an account of shipwrecked sailors "who could be safe if they got on to an island". In the same passage are references to ships being "tossed and turned in the tempestuous seas". The Karna Parva gives an account of the merchants who came to grief in the unfathomable deep. The Pandavas, it is said, escaped in a ship made by Vidura "equipped with all kinds of weapons of war, large enough to defy storms". With the coming of the Aryans, ships of war find frequent mention. They must have used warships just as they used chariots on land for land battles. The frequent references to the risks of sea voyages and the grievances met by sailors suggest that the Aryans of the Epic Period were
were still not fully acquainted with the sea as their predecessors were.

The dates of the Mahabharata and the Ramayana are controversial but there is no doubt that the events recorded in them occurred after the Aryans migrated to the Gangetic Plain, a period which is believed to have ended about 600 B.C.

The trade of India with the West and East which was established as far back as the Indus Valley Period continued during the Dravido-Aryan period (1500-600 B.C.). The bulk of the trade was with the West but the eastern trade is also mentioned.

The Major Land and Sea Routes of the Ancients.

The link of India with the Persian Gulf and beyond the Fertile Crescent, the Arabian coast, Egypt and the Mediterranean were mainly by three routes during the period of the Indus Valley Civilisation and the later Dravido-Aryan Period.

The first route was perhaps the earliest. It was across the natural passes afforded by the gaps in the north-western mountain complex of the sub-continent and the passes in the lofty Hindu Kush from whence it descended to the Oxus and the southern Caspian Sea coast and then made its way through the Fertile Crescent (The fringes of the Arabian-Desert and Turkish High lands) to the Mediterranean coast. It was a long and tedious route quite risky and uncertain for trade. (46)
But the Indus Valley towns of North Western India and the later towns of the Aryan Kingdoms of the Gangetic Valley were favourably placed to make use of this route and establish commercial contacts with the well known towns of Kish, Lagash, Ossis, Nippur, Uruk, Diyala, Babylon etc. in Mesopotamia as far as back as 2500 B.C. Byblos on the Mediterranean coast was known to the Indian in 1500 B.C. while Tyre, Sidon, Ezion Geber, Tadmor: (Falmyra), Baalbec (Heliopolis), Hamath (Epiphana) etc. were caravan centres when Solomon, the Jewish King was making every effort to gain entry into the Eastern trade.

The second route was from the Indus mouth along the Makran coast and up the Persian Gulf and the navigable Euphrates-Tigris, to the Fertile Crescent and from thence to the Mediterranean. It was partly by land and partly by sea.\(^{47}\)

The third route was along the Makran coast to the Gulf of Oman and the Persian Gulf and from thence along the Arabian coast to the Gulf of Aden and the Strait of Babel Mandeb, which commanded the entrance to the Red Sea. From this constricted gateway, one route went across hill and desert and joined the Nile route to the Mediterranean coast, while the other went up the Red Sea to the Isthmus of Suez and the Mediterranean across the Sinai Peninsula which was covered by the Canal of the Ancients. A branch of this route went to the Gulf of Aqaba and from thence, chosing a natural depression and a gap in the
southern hills of the Levant reached the Mediterranean. Memphis, Abydos and Fayum on the Nile and the market towns of the Interior were known as far back as 2500 B.C. While the earliest mariners traversed the sea hugging the coast, there is evidence that the Palaeo-Mediterraneans of the Indus Valley settlements went "out of site of land". The Dravidians were known to possess sea charts with a net work of lines intersecting each other at right angles. "The horizontal lines were parallels depending upon the altitude of the pole star, the calves of the Little Bear and the Barrow of the Great Bear from the horizon". With the help of the pole star and these sea charts the Dravadians seem to have struck across the sea. They also seem to have learnt to make use of the changing winds and currents in the Arabian sea long before Hippalus is said to have discovered them.

The Rise of the Persian Empire

Towards the latter part of Aryan rule in India (700-600 B.C.) a great Empire rose in the Persian Plateau which later extended its sway to Mesopotamia, the Nile valley, the Fertile Crescent, the Mediterranean coast, and upto Macedonia.

About 700 B.C. the Assyrians established an Empire extending from the Mediterranean coasts to the mountain countries north east of the Tigris. In 610 B.C. this empire changed hands and was divided between a reviving Babylon and
the Aryan Medes, who added to their empire their homeland, Iran. But the Empire soon fell into the hands of the Persians. In 546 B.C. Cyrus the Great defeated Croesus of Lydia and gained access to the ports of the Mediterranean. This gave the Persians control of the Aegean Sea which was further tightened when Philip of Macedon surrendered to the Persians. The Aegean Sea, so far considered a special preserve of the Athenians now became a Persian Sea. Darius I (521-485 B.C.) further added territories to the Persian Empire conquering Kapisa, Kambhoja and Gandhara on the frontiers of India. In 516 B.C. Darius sent a naval expedition to discover the sea communication between the Persian Gulf and the mouth of the Indus. His commander Scylax's flottila started from Multan. A little below the city, the Persian fleet was made ready to sail for Egypt which it reached after 2½ years. The fleet also visited the western coast ports of India before going to the Red sea ports. This was followed by the Persian conquest of the land from the mouth of the Euphrates - Tigris to the Indus. Sind thus became a Persian territory and trade between Persia and India could be conducted in peace.

Political unification of the ancient centres of civilization around the Arabian sea doubtless promoted intercourse both by sea and land. Organizational efficiency of a mighty Empire brought many facilities to traders. The Persians were great road builders. The Royal Road ran from Sardis in Asia Minor
through Babylon and Susa to Persepolis in southern Iran and
continued to their Indian province. It became one of the main land
links between Sind and the Mediterranean. It was equipped with
inns and relays of horses for use of official messengers. The
journey of 1700 miles could be accomplished in 90 days. (52)
From Persepolis the road continued to Kirman, the Helmand
valley, Kandahar and Quetta to the Indus Valley towns of Sind.
Another route connected the Indian towns to Susa and the Meso-
potamian Valley through Quetta, Kandahar, Herat and Qum. A
branch from Herat went to Merv which was an important trading
centre of the Indians. From Merv it continued to the Caspian
and the Black Seas. Babylon and Susa had important connections
with Tyre on the Levant besides Sardis in Asia Minor. Tyre
dominated the overland trade routes and sea routes. There were
also roads which connected Nippur on the Euphrates to Memphis
on the Nile. One ran through Amu and Heliopolis while another
went from Subrata in upper Euphrates to Babylos and joined
the Memphis road at Amu. The Persian connection of India also
brought the central Asian towns within reach of India. Bactria
was connected to Taxila and Kandahar. Bactria was the north
western gateway of India. Several routes went to China through
Bactria and Central Asia.

The Persian empire had also sea connections over a vast
area. India's long coastland, and the experience of the Western
coast ports in overseas trade, stood her in good stead when
the Persian rulers opened up the sea routes. The coastal sea
routes along Makran had a rapid development. Dilmun (Bahrein) seems to have continued as a meeting place of traders in the Persian Gulf but Babylon was the more important centre of trade.

The second important sea route was the Red sea. While one route went from the Persian Gulf along the Arabian coast to the Red sea, another went across the Arabian Sea to the Horn of Africa and Babel Mandeb and the Red Sea. Darius re-opened the Canal of the Ancients in Egypt and connected the Nile towns with the Mediterranean. The Pharaohs had a virtual monopoly of the Red sea trade. The Persians reopened this trade after the successful competition of the expedition of Scylax. It is even reported by Herodotus that Xerxes (485-465 B.C.), the Persian Emperor sent his cousin Sataspes on an expedition to the Western Mediterranean. Starting from Egypt he went beyond Gibraltar and sailed south. Herodotus says that he could not have gone beyond the Gulf of Guinea where the Region of Calms would prevent his ship going further, but that he must have rounded the coasts of Morocco and reached Senegal. The sea expeditions of Scylax and Sataspes expanded the sea trade of the Persian Empire. It is said that Darius got his ivory to build his palace at Susa from India. The cedar came from Lebanon, oak from Gandhara (upper Indus and Kabul valleys) and Carmania, gold from Sardis, silver copper and bronze from Egypt. His trade extended to Ethiopia from where also came ivory. Once again the location of the west coast ports of India in relation to the mighty Persian Empire enabled
The major trade of the western coast ports of India was naturally with the Persian Empire which now extended from Macedonia to the Indus including Egypt but the commercial supremacy did not last long because of rivalry. However the Jataka stories mention that Vainias of the west coast took risky sea voyages to Babylon. The Baveru Jataka refers to the journeys by sea to distant lands from the ports of Bharukachcha and Souparika. The Souparika Jataka reveals the skill of Indian sailors in the story of the merchant who despite being blind, successfully piloted the ships of several traders to the Persian Gulf ports, the Arabian coast and Aden, Somaliland and through the Nubian desert land route to the Nile and Egypt and brought them back safely to Broach. But both sea journeys and land journeys were dangerous. The Jatakas mention that journeys across deserts took days. The journey from Banaras to the port of Bharukachcha was through the Rajputana desert which was beset with drought, famine, wild beasts, robbers and demons. Westward of Bharukachcha says the Jatakas is Baveru (or Babylon) by sea, with which port it had considerable traffic.

Of the commodities that entered the trade of the Indian ports with the Persian Empire, an analysis can be made from excavations carried out at various sites and from literary
evidences. In the Palace of Nebuchadnezzar (604–562 B.C.) at Birs Nirimud an Indian cedar was found. (56) In the temple of the Moon God at Ur which was rebuilt by Nebuchadnezzar and later by Nabodinus between 555–538 B.C., two rough logs of wood from India were discovered. (57) Certain Indian commodities like rice, sandalwood, peacocks etc. were known to the Greeks by their Indian names. (58) Bharukachcha seems to have had a direct trade with Babylon by sea. This conclusion is born out by the Baveru Jataka. Rhys Davids is of the opinion that the Indians knew of the Monsoon in the beginning of the 7th or end of 8th c. B.C. and that they were trading from Sovira, Bharukachcha and Sopara. (59)

In the Greek literature also there are several references to Indian commodities. Herodotus (450 B.C.) refers to the Indian contingent of the army of Xerxes of Persia being clad in cotton cloth and armed with cane, bows and iron tipped arrows. (60) Among the Indian products he mentions "the wool which certain wild trees bear instead of fruits, whose beauty and quality excels that of the sheep and of which Indians make their clothing". (61) Of the minerals sent from India to Babylon Herodotus mentions gold. He refers to gold digging ants "the size of dogs". (62) The tribute of 360 Euboic talents equivalent to £1,29000, paid by the Indian province of Darius was in gold. (63) Lassen is of the opinion that much of this gold was imported to India from Tibet, Burma and even Africa. The Indus and its tributaries are however known to be
Ctesias, who seems to have gathered his information about India from Persian officials or from the Indians who came to the Persian court, says that Karuppa (identified as the Tamil-Malayalam word Karppu for camphor, Sanskrit Karpur) was in great demand in Persia. It is also identified as cinnamon (Karpion in Greek).

The recurrence of Dravidian terms for the commodities that entered India's trade with Babylon and Greece has led to the conclusion that the trade continued to be in the hands of the Dravidians and that the source area of these products was India. Rhys Davids and Kennedy are of the opinion that the traders of Bharukachcha, and Souparika were mostly Dravidians and not Aryans.

Another commodity mentioned is Sindhu or muslin. In Babylon Indian muslin went by the name of Sindhu (the country watered by the Indus) denoting trade between India and Babylon. The trade must have been by sea because according to Hewitt if the Zend speaking traders had brought it by land they would have called it Hindu, the Zend name for the country. Regardless of political changes in the Indo-Gangetic plain, during the ascendancy of the Assyrian-Achaemenian Empire (8th century to 4th century B.C.) the trade of India with the Persian Gulf, the Arabian coasts and Egypt continued. The closer connection was with the Persian Gulf. The trade also seems to have been with the earlier Dravidian people. The
Aryans probably began to take part in the trade towards the latter part of this period when they moved to Peninsular India and merged with the earlier cultures.

Although there is a large amount of data available for the trade of the western coast ports of India, including Bharukachcha, with the Persian Gulf ports, Egypt and the Levant coast, mention is also made of a thriving trade with the East as well. The Mahayana Jataka mentions the adventures of a Prince who in the company of other traders set out for Champa with export goods for Suvannabhumi (probably Burma or the whole of the Further-India coast). The Sankha Jataka tells the story of the Brahmin who goes in quest of riches to the Gold Country. His ship sprang a leak and he was saved by another ship filled with gold, silver, pearls, gems, cats eye, diamonds and coral. The Sussondi Jataka mentions the voyage of certain merchants of Bharukachcha for the Golden Land.\(^{(67)}\)

India had a trade with Ceylon, Burma, Java, Sumatra and China. Lacouperie is of the opinion that the maritime intercourse of India with China dates back at least to 7th century B.C. if not much earlier. He refers to the Indian colony of Lang-ga in China which was founded in 680 B.C. The trade with China was entirely in the hands of the Indians till the 1st century A.D. Lacouperie thinks that the Chinese began to enter this trade when the Han Empire extended to the coast.\(^{(68)}\) But the harassment by the Chinese is referred to by Indian merchants of Asoka Maurya, and hence, must have emerged as a serious
threat earlier than 1st century A.D. The threat was diverted by Asoka’s efforts to spread peace and amity through Buddhism. What ever the later reports of the Mauryan Period, it can be safely concluded that much of the products that India exported to the Persian Empire came from the Far East. Even though the colonisation of Java by Broach is placed at 75 A.D. in the chronicles of Java, there is little doubt that the trade of Broach with the Malaysian-Indonesian Archipelago, Burma, Ceylon and China is of an earlier date. The mode of trade being what it was in the ancient period, goods were carried by merchants over long distances from site to site and from place to place. They were distributed and collected at certain central places which were believed to be the source area. The fact that India, and particularly Broach, during this period, is mentioned as a source of many of the products that entered the Persian Empire (Greece, Egypt and Mesopotamia) is proof that India and its innumerable ports functioned as central places for the assembling and disbursing of goods from and to the areas surrounding the Indian Ocean. Its very position in the Indian Ocean gave it that facility.

Two serious embarrassments to the trade of the Indus Valley people and the later Aryo-Draavidian India were: 1) the lack of a standard currency to facilitate trade and 2) the high cost of transport both over land and sea. These were improved during the period of the Persian ascendency.
They payment for the luxuries which entered trade was now made by a quantity of silver. After 800 B.C. stamped silver bars began to appear. Pieces of metal of a fixed shape and standard weight (coins), stamped and guaranteed by the State both for quality and weight came into use by 700 B.C. which immensely simplified all commercial operations. The earliest coins were an alloy of gold and silver and relatively of high value. The Persian Empire maintained its gold coins at a very high value. But these high value coins could transact only big business and wholesale trade. After 600 B.C. coins of small value in copper and silver made their appearance. Traders now did not have to travel about with bars of metal, seals and weights. Small change corrected the difficulties of the retail traders and small producers. Anyone could now exchange his small surplus into coins and invest in manufacture and trade. Coinage made possible the entry of the artisan and the primary producers into manufacture and trade and the availability of technical refinements to the small farmer, trader and producer. Trade thus expanded with the surpluses and the facilities offered by the low value coins in retail transactions. But it became also quite easy to falsify coins and its weights. The debasement of coins was likely to occur when central authority weakened and supervision slackened.

Transport of goods was still costly. But the many cross country roads built by the Persians and the facilities of Inns
change of horses, provisions etc. provided by the Persian Emperors on the great trade routes simplified and encouraged travelling. Travelling by land was still by caravans to avail of the security and the facilities of mutual help on long voyages. On the deserts camels and dromidaries began to be extensively used so that many routes through sandy terrain came into use for trade. But even the use of the camel in the deserts did not substantially decrease the cost of land transport. It certainly facilitated movement across deserts. The load that a camel caravan could carry was still small and cumbersome and only goods of high value could be transported.

Sea transport also continued to be costly but it was cheaper than land transport. The power of the sailing ship was improved by the addition of sails which gave it more speed and greater endurance against natural calamities. The very fact that the Persian Empire embraced within its limits the most important commercial seas of the period forced them to improve the facilities of sea traffic. But the Persians, like the Egyptians, were not a sea-faring people. There is reason to believe that the traders of the Persian Empire were the Arabs of the coast, the Indians and the Greeks, a fact which in the end caused the gradual disintegration of the Empire.
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b. V. Gordon Childe, op.cit., p.126.


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