The Persian Empire began to crack when weak rulers succeeded Darius I and Xerxes. The people of the outlying provinces of the Empire began to show signs of revolt, particularly the Greeks of the Aegean Sea coasts who were deprived of the profits of the trade of the Eastern Mediterranean, with the expansion of the Persian Empire to the Levant, the Dardanelles-Bosporus, the Aegean Sea and Egypt. Alexander of Macedon swept through the territories of the Persian Empire, pillaging, plundering and laying waste the country. His campaigns lasted only 6 years and his Indian campaign, only 19 days. But it disrupted the Persian Empire which broke into two, the eastern part falling into the hands of the Seleucids, and Egypt and the Levant coming under the sway of the Ptolemies. The Greeks were able to get a footing, gradually, in the major trade centres of the eastern Mediterranean coast (Levant and Asia Minor) and along the land routes west and central Asia, a fact which adversely affected both the Ptolemaic and the Seleucid kingdoms.

When Alexander invaded the Persian Empire (331-325 B.C.)*

its limit in the east was the Indus. Petty rulers, east of

*Dates in early and Medieval Indian History are throughout rather controversial. As far as possible the most accepted have been used.
the Indus, perhaps acknowledged the suzerainty of the Persian Emperor. It is reported that a very powerful king with a mighty army ruled in Prasii (Prasaij) at this time. (1) Bimbisara had laid the foundations of the Magadhan Empire in 582 B.C., some 40 years before Cyrus the Great of Persia established the Achaemenian Empire in the Persian Plateau and Mesopotamia. While the Persian Empire expanded eastwards to the Indus valley under Darius I, the Magadhan Empire was expanding westwards. The Saisunagas and the Nandas (642-321 B.C.) between them had established a strong kingdom with its capital at Pataliputra. In 321 B.C. Chandragupta Maurya succeeded the last of the Nandas and founded the Mauryan Dynasty in Pataliputra (Prasii or Prasij). Once the Ganges valley came under his control, he was tempted to move to the Indus valley where the ravages of Alexander had left a power vacuum. But Chandragupta Maurya was not confident that his army could challenge the Seleucids in the north west who were determined to hold the rich province on their Indian frontiers which at that time also included parts of Afghanistan and the Punjab. Chandragupta therefore, moved south and occupied the Narbada Valley and the all important port of Broach, (2) which made him economically stronger to fight Seleucus Nikator. Chandragupta Maurya extended his Empire to the frontier provinces of Kapisa, Kambhoja and Gandhara. Since the days of the Saisunagas (642 B.C.), therefore, Pataliputra
(and Magadha) had seen an uninterrupted expansion which ultimately emerged as the Mauryan Empire in 321 B.C. under Chandragupta and his successors, Bindusara (297-274 B.C.) and Asoka the Great (274-236 B.C.). Asoka's Empire stretched from the Afghanistan plateau in the west to Padma - Maghna in the east, and from the sub-Himalayas (including the Kashmir and Nepal valleys) in the north to river Penner in the south. The kingdoms of the deep south acknowledged his suzerainty. Broach was now included in a large Empire which covered almost the entire sub-continent and much beyond, in the north-west. With the annexation of Gandhara, the all important Takshashila-Kabul route to Persia fell into the hands of the Mauryas. All land routes from the Gangetic valley through Malwa and the Bundelkhand-Son-Narbada valley to the Gujarat coast and the Burhanpur-Khandesh route to the Deccan Plateau, were at the disposal of Mauryan trade. Broach had every opportunity to take advantage of the trans-continental trade routes and widen its hinterland. Its location at the mouth of the Narbada on the Gulf of Cambay, its nearness to the Saurashtra port of Somnath Patan (one of the most important ports of the Mauryas) and its accessibility to the Deccan and to the port of Souparika (also an important port of the Mauryans) enabled it to function as one of the main markets and port towns of the Mauryan Empire.

Political unification of the country thus stimulated trade. But India of the 3rd century B.C. was mainly an
agricultural country which included animal husbandry as well. However, the extension of the Empire to the coastal territories of Bengal, Gujarat and the Peninsula, brought the ports with longstanding overseas trade, within the Empire necessitating the organisation of commercial enterprises. Commerce came under Government supervision and taxes were collected on goods at fixed places. The land system having already been fully developed, the same techniques of taxation were applied to commerce.\(^3\)

The Empire was divided into four provinces each under a Viceroy who usually belonged to the royal family. Smaller units were under the charge of a Governor. Each province was divided into districts and these, further into groups of villages. The village was the unit of administration and it had its own officials, such as a headman, tax collector and accountant. The town also had a hierarchy of officers who looked after the different functions of the town. Separate committees were set up for industry, commerce and trade, public sale of manufactured goods, collection of dues on articles sold etc. which encouraged and facilitated trade and checked corruption and malpractices.\(^4\)

The fact that the shipping industry was one of the flourishing industries of Mauryan India is a reflection on the immensity of the overseas trade of the Mauryan Empire. The stimulus to the industry came from the demands made on it
both by river and ocean traffic. African, Curtius and Diodorus mention that about 800 to 1000 vessels, entirely made by Indian craftsmen were used in the famous voyage of Nearchus. Arrian also refers to the dockyards, the galleys of 30 oars and the transport vessels, all built by Indians. That Indian sailors had intimate knowledge of the configuration of the seas surrounding the subcontinent is obvious from the remark made by Pliny that special ships with prows at both ends were built for sailing in the narrow and shallow channels between India and Ceylon. The Sanchi sculptures (2nd century B.C.) also represent royal barges and river canoes. Sailors navigated the sea with the help of birds and the pole star as in the days of the Indus Valley Culture. Where the pole star was not visible they let loose the birds and followed the direction of their flight to reach land.(5)

The shipping industry was a State monopoly according to Megasthenes. But ships built in the royal shipyards could be hired by the merchants or by those who undertook voyages. Pliny says that the tonnage of Indian ships was 3000 amphorae (one amphorae being 1/40 of a ton) on an average. But the size of the ships varied. The largest ships carried 10,000 amphorae each, that is, 250 tons.(6)

The development of the shipping industry under State supervision necessitated the creation of a Board of Admiralty which was under the war office. The State took extreme care
to implement the rules and regulations of inland and overseas traffic and of ports and coasts. Kautalya (Kautilya), the guide and mentor of Chandragupta Maurya, gives the picture of a well organised naval department in his time. At the head of it was the Superintendent of Shipping, the Naukadhyaksha or Navdyaksha who regulated all matters dealing with ocean traffic and inland water transport, both natural and artificial.

Regulations of overseas traffic were controlled at the ports by the offices of the Superintendent of Shipping. It collected all the dues charged at the ports. Taxes were levied both on goods imported and exported and they varied according to the commodities. Besides duty on goods, passengers had to pay a fixed sailing fees. Coastal villages, and villages on the banks of rivers, had to pay a fixed tax. The Superintendent of Shipping also issued licences for fishing in the sea. Fishermen had to pay 1/6 of their haul as fees. Licences were also issued for pearl fishing, fishing for conchshells etc.

State boats were let out for these purposes on payment of the required fees.

But the Superintendent of Shipping was not only a collector of taxes and dues for the State. He was responsible for lending help to weather-beaten and transport tossed ships arriving at his port. He was empowered to exempt from dues or charge only half the dues on any ship whose merchandise was damaged by water (natural calamities). In case a ship
foundered on the sea due to the lack of repair and proper maintenance by the State, the owner of the merchandise was entitled to compensation from the State. The Superintendent of Shipping had to report such cases to the Government. The efficiency of the port and the strictness with which harbour rules were implemented depended on the Superintendent of Shipping and his staff. Piracy was efficiently controlled and all foreigners were closely watched. Anyone found violating the rules of the harbour and port was fined or punished. The Superintendent could arrest any person found absconding with the wealth of another, one who concealed his baggage or carried weapons and prohibited goods secretly, one who disguised himself in the garb of another or one who came from distant lands without a passport. He could confiscate the goods of any one whom he suspected of cheating. (9)

The custom dues were collected by the Collector of Customs and Tolls, which further regulated imports and exports. The Custom House was generally located at the northern and eastern gateways of towns. It inspected all goods exported and imported. Fines were extracted from merchants for malpractices. The fines for forging seals and for under invoicing of goods was eight times more than the original duty. Goods such as metals, weapons, precious stones, chariots etc., the trade of which was considered a monopoly of the State, could be confiscated by the Custom Officer, if found being transported without
proper licence. Such confiscated goods were publicly auctioned by the Customs. But some goods not available in the country or found essential for the welfare of the State were exempted from Customs.\(^{(10)}\)

The Superintendent of Shipping was also in charge of inland water transport which was also governed by elaborate rules and regulations. He had to maintain the ferries and the inland water-ways. He issued licences for crossing ferries, prevented traitors or enemies from escaping and collected the fees for carrying loads. These varied according to the type of load. A minor animal carrying a load had to pay one Masha, a cow and a horse each, 2 Mashas, a camel or buffalo, 4 Mashas, a small cart, 5 Mashas, a medium sized cart, 6 Mashas and a big cart, 7 Mashas. If the river crossing was wide or involved risks, the fee was double that of the usual. Any one found crossing without a licence was fined. Such rules were however waived in the wider interests of the public as in the case of vegetable vendors, carriers of firewood, grass, fruits and flowers, persons pursuing criminals, royal messengers, servants supplying goods to the army, dealers carrying the necessities of life to the districts and villages, Brahmins, ascetics, children, the aged and the afflicted.\(^{(11)}\)

Besides controlling and regulating overseas and inland water transport, the Mauryans paid great attention to maintaining the prices and quality of goods. The Director of
trade was responsible for maintaining the prices at a fair level and to see that no one made undue profits. The sale price of all commodities was fixed by the State. Any one found selling goods at prices higher than fixed by the State had to pay a duty to the King's Treasury on the increased price. The Director of Trade had also to see that correct weights were used and the dealers did not use false weights. Strict control by the Director permitted people to get goods at fair prices and prevented any inflation.¹² Such organisational efficiency was a great incentive to traders.

On the other hand if prices fluctuated greatly in the foreign or national markets, the Director had to take a decision whether to store, sell or buy goods or to resort to releasing a restricted amount of goods into the market to maintain the price and benefit the merchant community.¹³

Since the State itself was a partner in trade, national policies had to be maintained for export and import. The king's workshops maintained a very high standard and export of the commodities produced in these workshops was encouraged. The Director of Trade framed policies for achieving the best terms for Indian goods in the foreign markets. He determined the rate of exchange, the profits that could be made on the export of particular commodities after taking into consideration the cost of transport, the customs charged etc. in the
countries with which India had trade relations. The data collected by the State benefited also the private merchant. The State was never a rival to the private trader. Private trade was equally encouraged and all facilities available to the State units were at the disposal of the privateers as well. The private merchant was considered a partner in business by the State.

From the duties collected on the various items of trade, and the elaborate rules framed for each of the departments of trade, a measure of the importance of sea trade in Mauryan India can be determined. Broach, being one of the major international ports of the Mauryans, benefited greatly by the efficiency with which the State's officers implemented policies.

Duties were levied on both export and import but they varied from item to item. Dried fruits paid 1/6 of its price. The duties on diamonds, pearls, corals, precious stones, chankshells, necklaces etc. were fixed by experts. Manganese, red lead, orpiment, minerals, sandalwood, colouring material, agar, silkworm, armour, kermes, antimony, vermilion, metals, various kinds of ores, spices, aromatics, fermenting materials, hides, skins, ivory, bed-spreads, and linen coverings, silk cloth, cotton cloth and other textiles, medicines, wood, bamboo, barks, earthen pots, grains, salt, oil, parboiled rice etc. paid duties varying from 1/25 to 1/5. Besides these, custom duties merchants had also to pay a gate toll.\(^{(14)}\)
The immense number of articles which were dutiable speak of the vigorous trade of Mauryan India. Broach as one of the major ports and market towns obviously handled a large part of the trade.

Besides the proofs furnished by the Customs Department there are other references which confirm the commercial contacts maintained by the Mauryans. Strabo relates the story of an Indian sailor who was captured by the Greek traders of Egypt and brought before the king. They were anxious to learn from the Indian, the sea route to India and thereby benefit their trade. The king promised the sailor a safe return to India if he divulged the route. It was thus that Eudoxus of Cygicus travelled in the company of the Indian sailor and reached Demetria as Broach was known at that time to the Greeks. Eudoxus, it is reported, collected a large quantity of aromatics and precious stones at Demetria and sailed back to Egypt. The above report confirms not only the importance of Broach as an international port, but also that the Indian sailors were well acquainted with the sea routes and the Sea States of the Indian Ocean. Egyptians were however considered by the Greeks as people of a closed in agricultural economy, never very adventurous in trade and travel overseas. The traders of Egypt perhaps were the Arabs, the Greeks and the Ethiopians.
THE SEA TRADE OF MAURYAN INDIA:

The trade of the western coast ports of India including that of Broach to the West and to the East received a boost with the centralised and efficient Government of the Mauryans and the extent of the Empire. But as during the previous period, a clear picture of the different ports with which India traded and the commodities that entered the trade of India, and of Broach in particular, with each of these ports, does not emerge. The mechanism of trade relations between countries being what they were, goods travelled from site to site and port to port. Some sites and ports with better resources and better contacts as a result of their natural accessibility to rich hinterlands, developed as distributing and collecting centres. It is not known whether Mauryan India had any direct trade with the ports of the Horn of Africa and the coast of Arabia. That such a trade was conducted, can only be inferred from the geographical situation of these coasts in relation to the Red Sea and the Egyptian ports on the one hand and to the Persian Gulf and the Arabian Sea coasts of India on the other. The ports of the Horn of Africa and the parallel coast on the Arabian side, commanded the entrance to the Gulf of Aden and the all important Strait of Babel Mandeb, the Gateway to the Red Sea and from thence to the Mediterranean through the Nile route, the desert roads and market towns, opened up by the Pharaohs of Egypt. Ships going to Egypt, up the Red Sea, or partly by land to the Nile and
its mouth on the Mediterranean, (routes which were in use since 3000 B.C.) had perforce to make use of the ports on the Horn of Africa and the ports of the Arabian coast. Secondly, these ports commanded a wide hinterland, (through natural rift valley routes, river valleys and mountain passes), which supplied some of the very coveted products of ancient trade such as frankincense, ivory, gold etc. Thirdly, there is evidence that such a trade existed in the pre-Mauryan period, right through the Indus Valley period, the later Vedic period and during the days of the Persian Empire. The Periplus, which is a record of the Roman trade with India in the 1st and 2nd centuries A.D., also says that the trade existed long before the Romans captured the Red Sea ports of Egypt and that even during their time the trade of the ports of the Horn of Africa and the Arabian coast was in the hands of the Arabs and the Indians.

The trade of the Indians and the Arabs down the east coast of Africa is also cited in the Periplus as having existed 2000 years before the Romans appeared in Egypt. The country was rich in frankincense, gold, rhinoceros horn, ivory and tortoise shells, all priced articles in the Indian Ocean trade. Glaser says that we must abandon the idea that Muhammad was the first to bring Arabia into a leading position in world's history. The Arabians before Islam, had expanded into Africa right from the days of the Babylonian and Egyptian Dynasties
and during the days of the Persian Empire. They continued as carriers of trade, along with the Indians during the Mauryan period. The whole country south of latitude 10° was frequented by Arab ships. Indians traded with the Arabs of the east coast of Africa. The river Zambesi, the Mozambique Channel, Madagascar and even the Cape, were known to the Arabs and the Indians long before the Arabs established a Muslim Empire and long before the Europeans discovered the Cape route. The Arab infusion in the Negro people all along the coast of Africa, as far south as the Cape, is evidence of Arab contacts with the Negroes, centuries before the advent of the Islamic Empire.(17) The very proximity of the coasts of western India, Arabia and Africa, and the availability of a sheltered sea, with favourable winds between them, afforded such a contact.

A glance at the physical features of the southern coast of Arabia will also help us to understand the early connections of India with this coast. The sea route of India during the Indus Valley Civilisation and of the later Vedic Aryans and Persians was along the Arabian Sea coast to the Gulf of Aden. The coast stretches from Ras al Hadd on the eastern tip of the Arabian Peninsula to Babel Mandeb in the west, a distance of about 2000 k.m.

The eastern section, east of the Hadramaut Valley is humid. The rain bearing Monsoon winds of the Arabian Sea blow
along this coast without hindrance from any land mass. The hills along the coast rise to some 4000 ft. and are high enough to catch the rain. The waters of the eastern section drain into the Kuria Muria Bay. Between the Bay and Ras al Hadd the land is very fertile. The coastal mountains and the Dhofar and Jenaba districts facing the Kuria Muria Bay were some of the oldest and most productive frankincense areas and were well known for their myrrh. The Dhofar coast, known to the Ancients as Sofar, traded in frankincense and myrrh. The coast also had suitable bays which could accommodate the sailing ships and give rise to ports of call for traders of distant lands.

The western section of the Arabian coast is arid. The Horn of Africa projecting into the sea and running parallel to the Arabian coast, obstruct the Monsoon winds. It consists of sandstone bluff, cut up by ravines which bring down the scanty rain water to the broad coast, which is quite fertile. Yemen in the western most corner of the Peninsula is the only area which gets a good amount of rain in this section. But all its main rivers drain into the Red Sea, and not to the Arabian Sea so that its natural trade routes open out to the Red Sea. The eastern part of the Yemeni hills facing Arabia, merges with the semi-arid country, and the waters of its rivers are lost in the desert sands. However, some of the valleys in these hills such as the Najran, the Minaean Jauf
and Sabaean were favourably placed in relation to the rich Hadramaut Valley.

The Hadramaut Valley runs parallel to the coast for about 200 miles of the course of the river and it is fertile and productive throughout this length. The river then turns south and loses itself in the sandy desert. The Hadramaut Valley like the Dhofar districts, was one of the best known frankincense and myrrh country. To it also came the products of the Yemeni valleys. Frankincense and myrrh were in great demand from China to the Mediterranean and the possession of these gave any trading community or Kingdom substantial control over the Indian Ocean trade. But the country being flanked by steppe and desert was subject to constant raids from wandering tribes. It was the ambition of every power to form a sort of frankincense trust to control this trade. (18)

During the Mauryan period in India frankincense was one of the major items of import. The trade with Arabia for frankincense and myrrh must have been encouraged with the stable government of the Mauryans. The Mauryan Empire was the largest the world had witnessed after the disintegration of the Persian Empire. The territories it commanded were rich in many of the resources that could be exchanged for the products of the other countries. In fact, Mauryan India stood out as the heart of the old world, that the neighbouring countries which were comparatively smaller in size and rich only in
certain of the products of the Indian Ocean trade, looked to India to procure the luxuries of the Far East and China. Standing at the crossroads of the trade routes from west to east across the Indian Ocean, Mauryan India, with its extensive resources, was able to command much of the trade of the ports of the Horn of Africa, the Arabian coasts and the East African coasts, although direct references to such a trade are not often made.

There is however definite record that Mauryan Indian traded with Ptolemaic Egypt. Following the break up of the Persian Empire the Ptolemies had established a dynasty in Egypt at about the same time that Chandragupta Maurya of the Mauryan Dynasty had gained a firm footing in the Gangetic Valley and was moving westwards and southwards to link his Empire by sea and land to the resource rich areas surrounding the Arabian Sea. In the early days of the Mauryan Empire the Seleucids in the Mesopotamian Valley proved a challenge to Mauryan trade with the Persian Gulf ports. It was only after Chandragupta Maurya was able to subdue the frontier territories of India and capture the Takashashila and the Multan routes that the Seleucids came to depend on the Mauryan Empire for its eastern contacts. The situation was further improved under Asoka Maurya. Ptolemy II Philadelphus (285-246 B.C.) was a contemporary of Asoka Maurya (274-236 B.C.), grandson of Chandragupta, during whose time the Mauryan Empire
reached its height in extent as well as in influence. Ptolemy Philadelphus knew the value of the Indian and Eastern trade for his kingdom. Harassed by the Arabs of Yemen and Hadramaut he tried to establish direct contact with Mauryan India on the one side and the Levant and the Mediterranean on the other. He reopened the Canal of the Ancients across the Isthmus of Suez and along the Pelusaic branch of the Nile. Arsinoe corresponding to modern Suez, was the Mediterranean port of Egypt during this period. It gave Egypt direct access to the Levant and the Mediterranean bypassing the Arabs on the Aqaba-Petra route. But Arsinoe was considered unsuitable for the sailing ships of the period, because of the contrary winds in the Gulf of Suez. The safer route was up the Nile, where sailing was made easy with the changing Etesian wind of the Mediterranean, which provided the rear wind necessary for up river traffic. From the Nile, the route continued to one of the Red Sea ports through desert roads, which were in use from the days of the Pharaohs. With a view to improving his connections with India, Philadelphus established several ports on the Red Sea coast of Egypt, while he maintained colonies in others. Myos Hormos\(^{19}\), Berenice\(^{20}\) and Ptolemais\(^{21}\) were established by him and he maintained a trade colony in the port of Adulis.\(^{22}\) All these ports were to become famous later as Roman ports trading with the East but they were ports founded by Philadelphus or ports where
Egyptian merchants had permanent colonies.

Myos Hormos had a much better harbour than Berenice and it was connected to the great market town of Meroe in the interior by a desert road and from thence to the Nile and to the Mediterranean coast. It had a thriving trade in frankincense. With this port, under his control Philadelphus expected to gain a firm footing in the frankincense trade of the Indian Ocean by passing the Arabs on the Aqaba-Petra route. Petra was an important control point of Arab trade and for the routes from Yemen and the Persian Gulf. The Arabs found it an ideal place to store frankincense, myrrh, silver and gold and distribute them to Egypt, the Mediterranean, Mesopotamia and India. It was naturally defended by a rocky wall and the expanse of desert all round with only one narrow entrance. It was well provided with spring water. When the Nebateans gained control of the Aqaba-Petra route the supply of frankincense to Syria and Egypt suffered. One of the main causes of the struggle of the Egyptians and the Syrians against the Nebateans was to gain control of the frankincense route. Ptolemy Philadelphus also had to struggle to maintain his links with the frankincense country.

The port of Berenice, named after Philadelphus's mother, was some 1800 stadia (10 stadia = one English statute mile) to the south of Myos Hormos. It had a small but fine harbour. It was also connected to the Nile by a desert road.
Ptolemais was another port on the Red Sea established by Philadelphus. It is identified as the island of Errih on the Sea Toka Delta (half way up the Red Sea coast). Ptolemais was also connected to the Nile by a desert road. The roads from Myos Hormos, Berenice and Ptolemais to Meroe, were some of the busiest roads of Egypt during the period of Ptolemy Philadelphus.

At the port of Adulis, Ptolemy Philadelphus maintained a colony for purposes of trade with the East. It is identified as the modern port of Massawa on the Eretrean coast of the Red Sea and commanded the Adulis Bay. The old Ptolemaic port was however a little to the interior, at the present site of the village of Zela. It went out of function through siltage but it was the natural outlet for Sudan and Abyssinia to the Red Sea. Desert roads connected Adulis to Meroe. Meroe had replaced Thebes as the great interior market town on the Red Sea-Nile routes, when the Nubians shifted their capital from Thebes to Meroe in 560 B.C. Adulis had a rich hinterland from where came ivory, rhinoceros horns and gold.

All these ports of the Red Sea were connected by desert routes to the Nile waterway and from thence to the Nile Delta and Arsinoe on the Isthmus. The most frequented roads were those from Myos Hormos and Berenice through Meroe to the Nile. The greatest part of the journey by desert roads was accomplished at night to avoid the heat of the day. Ptolemy Philadelphus provided these roads with Hydreumas
(watering places) at intervals and set up guards to protect them to facilitate trade. Some of these watering places had caravanserais which could accommodate a large number of travellers at a time. The main aim of Ptolemy Philadelphus was to establish direct trade contacts with India. The stability of the Mauryan Empire in India and the efficient organisation of the Mauryans encouraged Philadelphus to give all the facilities required for the traders of Egypt. The Red Sea ports established by him had a thriving trade with the west coast ports of India including Broach.

Of the commodities that were imported to Broach and the western coast ports of Mauryan India from the Red Sea ports, corals seem to have been one of the major items. Commodities imported generally bore the name of the place from where it was sent. In the Arthasastra, corals are cited as Alasandaka (Alakandaka) denoting Alexandria. Perhaps the corals that came to Broach were from the Mediterranean and reached India through Alexandria, the Nile and the Red Sea ports of the Ptolemies.

The island of Ophiodes, south of Berenice was very rich in topaz. Topaz and emeralds were exported from Berenice, but whether the destination was India, is not known. India had its own emeralds. The later Romans did not find this trade very promising and left it to the natives. It is likely that the natives traded in these commodities during
the Ptolemaic period. Other imports from the Red Sea ports to Broach were silver, dates, cinnabar and slaves. The return traffic consisted of ivory, spices, cotton cloth of various types, rice and incense.\(^{29}\)

From the ports of the Arabian coast came dates, wine and frankincense to Broach while the return traffic was in cotton cloth, timber, spices and incense.\(^{30}\)

It is not known whether Mauryan India maintained continuous sea contacts with the Persian Gulf. The Mauryan Empire stretched across the frontiers of India to Aria, Arachosia, Gedrosia and Parapanisadae and had control over the trade routes across Afghanistan and Makran to the Persian Gulf. Much of the Mauryan trade with Persia seems to have been by land. But the coasts of western India were so close to the Persian Gulf that it is unlikely that the strong Empire of the Mauryans did not avail itself of the sea route. The Patala route to Bahrein (Dilmun or Telemun), Gerrha, Omana etc. were re-activated by the Mauryans. Babylon, however, had long replaced Bahrein as the centre of trade and port of call for Indian shipping. Indians had a permanent trading colony at Babylon.\(^{31}\) From the Persian Gulf they seem to have sailed to Socotra (Sukhadara to the Indians) and to the ports of the Horn of Africa and the Red Sea.
Of the commodities that were imported from the Persian Gulf ports to Broach and the Mauryan ports of the West coast, are mentioned pearls, gold, silver, wine, dates, stibium and slaves. Not all of them were however products of the Persian Gulf region. Hides and furs are also cited as imports of the Mauryan Indian ports of the west coast. They perhaps came from Central Asia through the Persian Gulf ports. Moti Chandra says that they came by the Himavatmarga (the northern Himavat route), perhaps by land. The major exports of Broach to the Persian Gulf were cotton cloth of various kinds, spices, copper, sandalwood, incense, timber, blackwood, ebony etc.

The trade of the Mauryan ports of the west coast with the Persian Gulf by sea and land came more under the control of the Mauryan as the Empire expanded to the frontier provinces of India which controlled the land and sea routes. Asoka was able to establish contacts upto the Levant and Asia Minor.

The trade of the Mauryans with the Far East was equally extensive and the share of Broach in this trade was substantial. Artha Sastra mentions aromatics which came from the Far East as being in great demand in India. Sandalwood came from Java, Sumatra, Malaysia and Amoy in China, agallocham from Malaya, Burma, Java and Indo-China, spices and gold from the Moluccas and Borneo, precious stones such as rubies and spinal rubies from Ceylon and Burma, and amethyst and pearls from Ceylon. That the trade of Mauryan India with the Far East
was of great importance to the revenues of the State is revealed in Kshemendra's Kalpalata written in the 10th century A.D., wherein he says that Emperor Asoka was accosted by a group of Indian merchants who complained that "the Nagas, Worshippers of the Dragon", (obviously Chinese), were harassing them in the eastern seas and that if the Emperor did not take any action, they would have to seek other means of livelihood "in the event of which the imperial Exchequer will be emptied". In response to this complaint Asoka issued an Edict which was ignored by the Nagas. Kshemendra goes on to say that the Nagas were persuaded to respect Asoka's Edict, give up their hostility and aggressive ways and return the booty stolen from the merchants, only when the Emperor became a Buddhist and preached the religion of the Buddha to the Chinese. (38)

THE LAND TRADE OF MAURYAN INDIA:

The Mauryans also paid great attention to land trade and to the maintenance of trade routes to facilitate the movement of goods. A great part of Mauryan India's trade with the Seleucid Kingdom, the Fertile Crescent and the Levant, was through the well known routes across the mountain barriers in the north-west, through Takshashila and Balkh, from where one branch went east to China and the other through the Fertile Crescent to the Levant. Takshashila was connected to Patiliputra by the Great Hindustan Road which had branches to Broach through Ujjain and Mathura and also through the Punjab and Sind.
The Arthasastra of Kautilya places land routes above sea routes in order of importance. Both external and internal trade were largely by road. Roads were classified according to their width and use into several categories. The Rathya was the chariot route and measured 7 1/2 feet in width, while the military roads (Vyuha pathas) measured 48 feet or 8 dandas. Rashtrapathas were roads leading to the neighbouring countries and were quite important for external trade. Besides these there were roads leading to ports (Dronamukha), roads leading to capitals (Sthaniya), and roads leading to pasture lands (vivitahpathas) roughly 24 feet (4 dandas) in width. Small tracks of an average width of 3 feet were used by animals. Ports and fortresses were served by many roads befitting their importance in trade and defence. (39)

Kautilya, while recognising that sea and river traffic were cheaper than land traffic, says that the latter was less risky and more economical. The Government maintained the land routes and they were thus safe for travel. Further, he says, they usually traversed through settled areas and towns so that merchants could buy and sell through the length of a land route, thereby making it more economical. For the same reason he says, coastal and river routes were more economical than an open sea route which traversed through the empty seas. (40)

On the economics of the two major land routes of Mauryan India, he says, that the Himavatmarga, that is the Balkh-Patliputra
road, was less important because it brought only hides, furs, woollen cloths, horses etc. which were comparatively cheaper than the goods which came by the Dakshinapatha, that is the Kausambi-Pratisthana (Paithan) route. Through this route came diamonds, precious stones, pearls, gold, chankshell all of which fetched a high price in the market. Further he says the frequent use made land routes cheaper. Of the land routes he says, the bullock cart routes were more economical than mere animal tracks because they could carry more load in one trip than an animal.

Megasthenes refers to the efficiency with which the Mauryans maintained their roads. Mention has already been made of the passports which everyone had to carry whether travelling by road, river or sea. These passports were inspected by the Superintendent of Meadows. Inspection houses were set up at starting points through which all travellers had of necessity to pass. The Superintendent had also to see to the comfort and safety of the travellers. He had to protect them from robbers and wild animals. Special arrangements had to be made for travelling in forests. Hunters and dogs were maintained by the Superintendent to see the travellers through a patch of forest. Rest houses were maintained by managers (Dharmavasatha) who looked after the comforts of the merchants and travellers. The State provided wells for water, accommodation and food at the rest houses for a small payment.
All malpractices were controlled by a strict surveillance. Goods were inspected to prevent forgery of seals, under invoicing and for carrying prohibited goods over which the State had a monopoly. The Dharmavasatha was to help the Superintendent in detecting such malpractices amongst the merchants and it was his duty to inform his superior officer of the frauds practiced so that suitable punishments may be meted out to those who violated the law. Such rules may have existed even in pre-Mauryan India, but Mauryan India implemented them efficiently so that the merchant was quite aware of his responsibilities. One of the greatest assets of Mauryan India was perhaps the awareness of the people themselves to the responsibilities allotted to them, an awareness which is generated only by an efficient and a highly centralised Government.

Movement of goods by land was subject to tolls and ceases which were collected by the Warden of the Marches (Antahpala). The duties collected by him varied from 1 1/2 panas for a head load to 1/4 and 1/2 panas for animal loads.

With such an efficient organisation for commerce and trade it is only to be expected that production of goods was also accelerated. The old Srenis of Aryo-Dravidian India matured into full fledged guilds under the Mauryans. The Guilds framed rules of their own for wages and work and there were guilds for all kinds of functional groups. As the
king himself was a partner in production and he maintained workshops as State enterprises, elaborate rules were framed for the efficient functioning of the Guilds.

A system of banking also existed at this period which enabled any one to borrow and start his own industry or business. The rate of interest varied from 5% to 20% according to the risks involved in the enterprise. The bankers (Dhanikas) could not charge more than 50% on grain. Goods could also be pledged for money, but the banker could take only half of the profits at the end of the year. (148)

Internal movement of goods was also thus encouraged, maintained and protected by an elaborate Government machinery. Suitable compensation for losses, efficient implementation of rules, facilities for safe travel, a system of banking all encouraged land trade.

The commodities that entered Broach from its wide hinterland were varied and large in quantity. The inter-regional trade was no doubt encouraged and speeded up with the very extent of the Empire, but its safety and prosperity was certainly assured by an efficient government.

From North-western India came hides, furs and horses although the best hides and furs which came to Broach were from Central Asia and China through the Balkh-Takashashila
route. Embroidered cloth and shawls came from the Punjab and Kashmir. Woollen products came from Kashmir and Nepal. Linen came from Kasi and north Bengal, silk from Kasi and Bengal, cotton goods from Mathura, Kasi, Konkan, Mahishmati, Kausambi and Kalinga, precious and semi-precious stones from the Pandyan countries, crystal from the Vindhyan hills, diamonds from Berar, Madhya Pradesh, the Deccan and Kalinga, sandalwood and agallochum from Assam and horses from Kambhoja, Sindh and the Punjab.

Although many of the trade routes through natural passes, river valleys and coasts existed before the Mauryans established their Empire, to the Mauryans go the credit of having organised, maintained and improved these roads as well as having constructed some of them. The main trade route of Mauryan India was the Pataliputra road to Takshashila and beyond to Balkh. It ran through Kausambi (near Allahabad). A branch of this road went through Ujjain in Malwa, to Broach connecting that port with the capital of the Empire and with the market towns of the Indo-Gangetic plain and the frontier trade town of Takshashila. Having political control over the frontier provinces of Kapisa, Kambhoja and Gandhara, Mauryan India was in full control of the routes to the Persian-Afghanistan plateau.
On Ujjain converged routes from the Deccan, from the Gangetic plain and from the Punjab. One route went from Ujjain to Kandhar (Kandahar) through Roruka, another went through Mathura and joined the Kandhar road at Roruka, a third went through Mathura and joined the Great Hindustan Road to Takshashila, a fourth road went through Vidisa, Prayag, Kausambi and Kasi and reached Pataliputra. Branching off at Kausambi, a road connected it to Kusinagara on the Hindustan road. Ujjain was also connected to Mahishmati and to Paithan and Tagan in the Deccan. From Mahishmati it extended to Broach to the west and to Ujjain to the north-east.

Broach further had an alternate connection with Kandhar and Kabul through Patan in northern Gujarat, Patala in Sind and Bela on the Las Bela plain on the Makran coast. It was also connected to Patan and Patala, by a route along the Saurashtra coast, which ran through the important ports of Somnath and Dwarka. Girinagara was the provincial capital of the Mauryans in Western India and the Saurashtra coastal route linked Broach with the provincial capital.

In the south Broach was linked with all the important market and port towns. A coastal route went through Sopara and Kalleina to Kanyakumari. The coastal route had branches through the gaps in the western Ghats, guarded by Junnar, to Kolhapur, and from thence to the east coast. A more important route ran from Broach to Mahishmati to Paithan
(Pratisthan) and Tagara on the Deccan Plateau, and from thence, went to the east coast through Golconda. There was also a coastal route along the east coast from Kanya Kumari, through Kaveri-patnam and Jaguda to Tamralipti and Pataliputra.\(^1\)

**THE MARKET TOWNS OF MAURYAN INDIA:**

The great Market Towns of Mauryan India were Pataliputra, Pushkalavati and Taxila, Sakala, Mathura, Indraprastha, Varanasi, Kausambi, Champa, Mithila etc., in the north, Vidisa, Ujjain, Mahishmati, Pratishthana, Tagara, Maski etc., in Central India and the Deccan. Of the ports, which were also great market centres, are mentioned Somanath Patan, Barukachcha, Tamralipti, Kalleina, Symulla (Thana) and Patala.

Pataliputra was not only the capital of the Mauryan Empire but also an international Mart. It was linked with all the trade centres and ports. The road from Pataliputra to Broach which passed through Kausambi and Ujjain opened out all the countries of the west to Pataliputra.\(^2\) Broach was therefore the Mauryan capital's window to the west.

Pushkalavati in western Gandhara, and Taxila in Eastern Gandhara, together controlled the north western gateway of India and the Khyber route from Central Asia. Both fell to the Mauryans with the conquest of Gandhara. Taxila was made the capital of the north-western Provinces of Asoka and his own son was its viceroy.\(^3\)
Vidisha and Ujjain lay along the central route from the western coast ports, including Broach, to Pataliputra. The lines of communication between Ujjain and Vidisa and Pratishthana on the Deccan Plateau passed through Mahishmati on the Narbada in the Nimar District. Thus Vidisa and Ujjain controlled the routes from all directions. Vidisa was also an industrial city known for its swords. Ujjain, like Taxila, was the seat of a viceroy of royal blood. On it converged routes three major highways, namely the road from Patala and Rotuka, from Pataliputra Kausambi and Vidisa and from Pratishthana in the Deccan. Equally important was the road which connected it to Broach and Sopara. Under the Mauryans Ujjain was a great commercial centre. Through Ujjain flowed wine, cloth agate, carnelian, Indian muslin and mallow cloth and ordinary cloth to Broach as well as to other trade centres.

Mahishmati controlled the route to the Deccan and to the famous market town of Pratishthana (Paithan). It was through Paithan that all routes from the north were connected to the Market towns of the Deccan. During Asoka's time, it was well known for its perfumes. Along with Tagara, it controlled the trade of the south to Ujjain and from thence to Broach. It was also connected to Kalleina and Sopara.

Mathura also developed as a great commercial city on the great Hindustan road from Pataliputra to Taxila. Trade
was the most important occupation of the people of Mathura. Like Ujjain many routes converged on Mathura, the most important of which were those from the ports of Barygaza, Patala and Barbaricum, and the ones from Tamralipti and Pataliputra. There were also roads which connected it to Ujjain.

Kausambi was another trading town which benefited by its situation on the Pataliputra-Ujjain route. Both Kausambi and Varanasi had advantageous locations on the much used water routes of the Jamuna and the Ganges, and the major trans-country road from Pataliputra to Taxila. Both were connected to Broach. Varanasi was famous for its textiles, sandalwood work, diamonds and for its wealthy bankers and traders. (65)

With a rich hinterland supporting a large number of market and manufacturing towns and an efficient transport system, regulated and controlled by a centralised Government, Broach, along with Tamralipti, Kalleina, Sopara and Somnath Patan, was able to emerge as one of the most thriving ports of Mauryan India.
References:

THE MAURYAN PERIOD


(2) R. Thapar, op.cit., p.70.

(3) R. Thapar, op.cit., pp.75-76.

(4) R. Thapar, op.cit., p.82.

  c. R.K. Mookerji, op.cit., p.72 (Footnote 5).
  d. The Periplus, op.cit., p.213.


(9) a. R.K. Mookerji, op.cit., p.75 and p.78.
  b. Moti Chandra, op.cit., p.81.

(10) a. Moti Chandra, op.cit., pp.82-83.
  b. R.K. Mookerji, op.cit., pp.77-78.


  b. Moti Chandra, op.cit., p.84.

(14) Moti Chandra, op.cit., p.83.
(15) Moti Chandra, op.cit., p.79.
(19) The Periplus, op.cit., p.52.
(20) The Periplus, op.cit., p.55.
(21) The Periplus, op.cit., p.60.
(22) The Periplus, op.cit., p.60.
(23) The Periplus, op.cit., p.60 and also pp.55-60.
(24) The Periplus, op.cit., p.58.
(25) Moti Chandra, op.cit., p.79 and p.88 (Alasandaka (79) and Alakandaka, p.88.
(29) The Periplus, op.cit., p.42.
(30) The Periplus, op.cit., p.42.
   b. Moti Chandra, op.cit., p.46.
(32) a. The Periplus, op.cit., pp.36 (for gold, horses, wine, dates etc.) and pp.151,156,164.
   b. Rapson E.J., op.cit., p.431. He says that horses came from the Indus countries and beyond.
b. Moti Chandra, op. cit., p. 78. He says that hides, furs, woollen cloth, horses etc. came through the northern route (Himavatamarga).

c. Rapson, E.J., op. cit., p. 431. He says that skins came from Central Asia and China.

(34) The Periplus, op. cit., p. 36.

(35) a. R. Thapar, op. cit., pp. 73-74 and 71.

b. R.K. Mookerji, op. cit., p. 79.


(38) R.K. Mookerji, op. cit., p. 80.


b. Moti Chandra, op. cit., p. 77.

(40) a. Moti Chandra, op. cit., p. 78.

b. R. Thapar, op. cit., p. 106.

(41) a. P.C. Prasad, op. cit., p. 112.

b. Moti Chandra, op. cit., p. 78.

c. K.A. Nilakantasastri, A History of South India (Oxford) 1976, p. 84.

(42) Moti Chandra, op. cit., p. 78.

(43) Moti Chandra, op. cit., p. 81.

(44) a. P.C. Prasad, op. cit., p. 117.


(45) Moti Chandra, op. cit., pp. 84-85.
Moti Chandra, op.cit., p.83.
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