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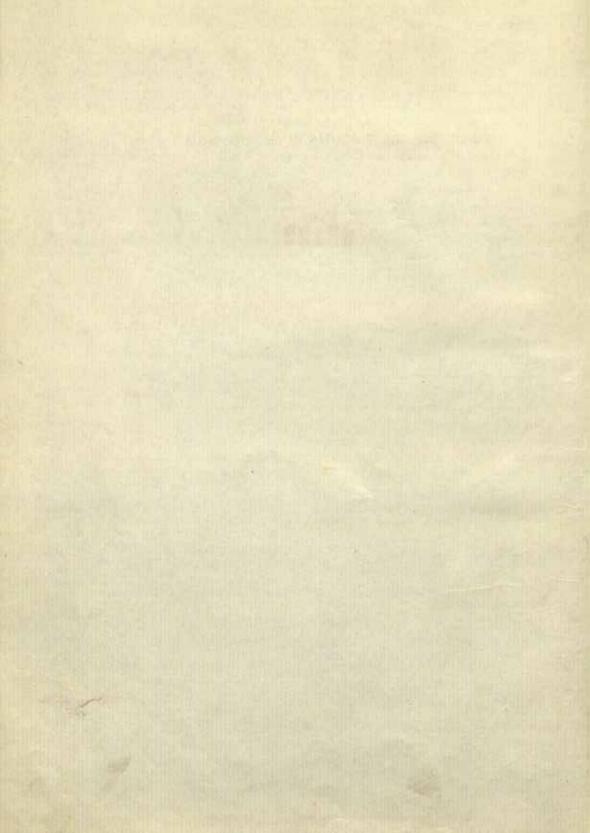
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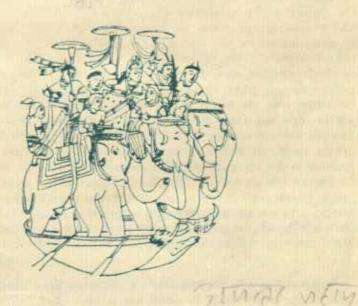




# Trade and Trade Routes in Ancient India

MOTI CHANDRA

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#### INTRODUCTION

In THIS book\* Moti Chandra deals with the problems related to ancient Indian merchants, their trade, the trade regulations and the network of trade routes. In his studies he has made use of the material extending from the Vedic period to the eleventh century available in Sanskrit, Pali and Prakrit languages. Geographical information from the Greek and the Roman sources, the accounts of the Chinese pilgrims and Indian art, by assembling the tit bits of information he has given shape to the lofty mountain of the Sarthavaha of whose summit the resplendent sun of Indian literature radiating in all lustre has brought to light hundreds of new facts. He has as a matter of fact laid the foundation stone of the all comprehensive history of Indian culture in the years to come. After reading the book one is bound to know where these precious historical facts lie hidden and the methodology the young historian should apply for discovering new facts and on these bases and a comprehensive style create the new edifice of Indian history and culture. While reading the book one gains the sight of the relations of India with the countries and islands lying across the Arabian Sea and Indian Ocean. The Dasakumara Charita of Dandt mentions the name of the naval captain Rameshu. Who knew that this word is of Syrian origin whose meaning is handsome Jesus (rāma=handsome, Ishu=Jesus)? Owing to the spread of Christianity this name had become common among the sailors from Western Asia. In the Gupta period Indian fleets were capable of defending the sea-girt coastal regions of the country and increase trade with other countries. Dandt therefore observes that a battle ship named Madgu (sea-gull) accompanied by other boats attacked a Yavana ship.

The word Sarthavaha is self explanatory. Kshīrasvamin, the commentator of the Amarakoša comments "one who is the leader of travelling merchants who invested their own capital" (sārthān sadhanān pānthān vahati sārthavāhah: Amarakoša, III. 9. 78). Sārtha is defined as 'the group of travellers' (sārthodhavanavrindam, Amarakoša, II. 6. 42). In actuality sārtha means 'merchants who invested equal amount of capital and who carried on trade with outside market travelling in a caravan'. Their leader was known as sārthavāha. The nearest English equivalent to the term is caravan leader. The Hindi sātha has been derived from the Sanskrit sārtha but in original technical import has been lost. According to the author in the Sindhi the meaning of the original sārthā is still preserved. Some courageous merchant made himself the head of the caravan after joining it. Those who joined the caravan were governed by its own rules and regulations. The starting of a caravan was an important event for the merchant community. As for pilgrimage

<sup>\*</sup>This book is the English version of Moti Chandra's Sarthavaha.

sangha was organised and its head was sanghapati (sanghavaī, sanghavī), similar was the position of sārthavāha in the field of trade and commerce. In the golden farm of Indian trade, the picking was done by the caravan leader. Rich in organising skill, truthful, the treasure house of courage, ready to grapple with fresh problems, replete with commonsense, liberal, bestower of alms, interested in religion and culture, expert in the knowledge of his own country and foreign lands the caravan leader rubbed shoulders with foreigners as the Yavanas, Śakas, Pahlavas, Yūe-chi etc. Masters of their languages and customs, the Indian caravan leaders extended their activities from Tāmralipti in the Bay of Bengal to Antioch in Syria, from Java to Kedah, and to the ports of Cholamandala and to Alexandria and East African ports.

In the present book the material about sarthavaha and his activities has been arranged systematically in thirteen chapters which present a moving picture of the two millennia of Indian trade. In the first chapter the network of Indian trade routes with their arteries is presented. In our literature for the first time in the Prithvi Sūkta of the Atharva Veda our attention has been drawn to the panthas or routes of our great land.

Ye te panthāno bahavo janāyanā rathasya vartmānascha yātave | yaiḥ sañcharantyubhaye bhadrapāpāstam panthānam jayemānamitramataskaram yachchhivam tena no mṛiḍ | |

A.V. XII. 1. 47.

This hymn seems to have been the keynote of the caravan leaders. It draws our attention to the following points:

- 1. This land had many routes and their arteries.
- 2. These routes were the principal means of communication of the people.
- 3. On these routes the chariots plied.
- They were principal means of communication for bullock carts for transporting goods.
- 5. Good or bad every one had the right to use those roads.
- However, it was necessary to safeguard the people of those routes against the depredations of the wild animals and robbers.
- 7. Those well-guarded and safe routes symbolized the happiness of the earth.

The same principles hold good for the road system of India today as in ancient times. The account of the Grand Route in northern India in this work deserves our attention because in ancient times this served as an artery for the land mass of the whole Asia extending from the Caspian Sea to China and from Bāhlīka to Pāṭaliputra-Tāmralipti. Pāṇini (c. 500 B.C.) gives its contemporary name as Uttarapatha (Uttarapathenāhritam, V. 3.77). Megasthenes taking it as the northern route describes its various constituents. The Haimavatapatha of Kauṭilya indicated the Vāhlīka-Taxila sector of the route. The great French savant A. Foucher has studied the history of this sector in two volumes. I am happy to note that the

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author has fully utilised A. Foucher's work. The true identification of Hārahūra is with Harahvaitī modern Argandab region in South Afghanistan. The ancient Iranian name for Herat was Haraiva (S. Sārava). The name of the river Sarayū is even now preserved in the Harī Rūd. The other name for the Parisindhu region was Pāresindhu mentioned in the Mahābhārata. Its exact equivalent in English would be trans-Indus. Pāṇini (VI. 2. 42) gives pārevaḍavā the name for the mares from the other side of the Indus. Moti Chandra has made a thorough search of Indian literature about these routes. In the Nalopākhyāṇa of the Mahābhārata standing in the Kontwar region of Gwalior (between the Chambal and Betwa) it is observed: ete gachchhanti bahavaḥ panthāno dakshiṇāpatham (Āraṇyaka Parvan, 59. 2). Many routes and their many arteries started from this place to the Deccan. There are also mentioned the routes proceeding to Vidarba, Dakshiṇa-Kosala and Dakshiṇāpatha. Even now the rail roads follow the same directions.

The Vedic literature does not mention sarthavaha; but it names the merchant Pani and his business. It is worthy to note that the Hindi word gatha forca pital could be derived from the Vedic grathin meaning a capitalist. The frequent occurrence of technical terms in the Vedic literature supports the view that the Vedic Aryans were well acquainted with the sea (veda navah samudriyah). From the Pali literature of about the fifth century B.C. important information about travelling is available. In the traverllers besides the merchant community were included monks, pilgrims, pedlars, horse traders, acrobats and actors, students and tourists. Attention was paid for the safeguarding and repairing the roads. But even then they were infested with robbers known as panthaghataka or paripanthin (Pāṇini, IV. 4.36: paripantham cha tishthati). The commentary on Pāṇini V. 2.89 quotes a Vedic prayer as an example-mā tvā paripanthino vidan ('God forbid that you should meet a robber on the way'). Even then the responsibility of the sarthavaha for protecting the caravan was great and he employed guards for that purpose. While passing through the forest leader of an aboriginal tribe took the responsibility of guarding a caravan on payment; they were known as forest guards or atavipālas.

The sārtha provided itself with provision and other necessities of life. Proper arrangement was made for desert journeys. Vaṇṇupatha, the route to Bannu from the Middle Country, passing through the desert which could be identified with the thal desert of Sindh to the east of the river Indus. In the same way a route from Dvarāvatī (Dwarka) passing Marudhanva in the Marwar district reached Roruka (the present Roḍī), the capital of ancient Sauvīra, and from there after many stages it reached Central Asia (Kamboja); from there it had to cross Airāvatadhanva (Gobi desert). In this desert journey the caravan was guided by the 'land captain' (sthalaniryāmaka) with the help of the stars. In the same way on the sea route the captain (jalaniryāmaka) commanded the ship. There was arrangement for training the crew in nautical science (niryāmaka sūtra) in the port of Sopara. The amount of information assembled about sea-voyages in this work was never made available before. Those who travelled together on ships were known as sāmyātrika. In the Mahājanaka Jātaka, after the shipwreck Mahājanaka swimming for his life was addressed

by the goddess Manimekhala. The dialogue between the two proves the indomitable courage and power of Indian sailors.

"Who is the fellow who in the vast ocean is ineffectively beating his hands. Depending upon whom you are making this effort.

"O Goddess. It is my firm belief that in life one should exert as far as possible, and, therefore, even though the shore is not visible, I am continuing my effort to reach it.

"It is useless to show your courage in the sea. You are bound to perish before reaching the shore.

"O Goddess, why do you say like this. Even if I perish making effort then I will be saved at least from calumny. One who exerts like me has not to repent afterwards.

"But an effort which is destined not to succeed, of which there is no end in sight, what is the use of such an effort when the death is inevitable.

"The fellow taking it for granted that he will not be able to cross the ocean ceases his efforts then it is due to his own weakness. Whether success accrues or not a man who draws up his own programme and tries for its success then he is sure to succeed. It is evident from the fact that all my comrades have been drowned but I am still swimming and alive. So far as any energy is left in me I shall continue to exert and so far any power is left with me I shall certainly make efforts to cross the ocean." Mahājanaka Jātaka, Vol. VI, no. 539, pp. 35-36).

Manimekhala was the presiding goddess of the sea travellers and sailors in South India. Her worship extended from the Cape Comorin to Kedah and in Puhar at the mouth of Kaveri, there was a big temple in her honour.

Like Manimekhala, the presiding deity of the caravan leaders in the north was Yaksha Manibhadra. All over northern India there were temples in his honour. The colossal statue of a Yaksha found from Parkham in the Mathura district represents him. But Pawayan (Padmavati in the former Gwalior state) was a great centre of the Manibhadra cult. Caravans passing from the north to south had great regard for him. It is mentioned in the Nalopakhyana of the Āranyaka Parvan (61.125) that a very big caravan with a view to make a large profit proceeding to Chedi Janapada crossed the river Vetravati (Betwa) and Damayanti joining it reached the Chedi country. Reaching a dense forest the leader of the caravan invoked Manibhadra, the king of Yakshas: pasyamyasminvane kashte amanushyanishavite, tatha no yaksharad Manibhadrah prasidatu (Āranyka, 61.123).

Fortunately, there is a very good account of a mahāsārtha in chapters 61-62

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of the Āraṇyaka Parvan. That big caravan was crowded with elephants, horses and chariots (hastyāśvaratha samkulam) and the number of oxen, donkeys, camels and men on foot was so overwhelming that the caravan appeared as the moving ocean of men (janārṇava 62.12). The members of this prosperous sārthamaṇḍala (62.10), were the sārthikas (62.8). It included not only merchants (vaṇijaḥ) but also the Brahmans well versed in the Vedas (62.17). The leader of the caravan was known as the sārthavāha (aham sārthāsya netā vai sārthavāhaḥ śuchismite, 61.122). The caravan included the young, old, children and women: Sārthavāham cha sārtham cha janā ye chātra kechana (62.117) yūnaḥ sthavirabālāścha sārthasya cha purogamāḥ (62.118).

The caravan was also accompanied by some lascivious chaps who wanted to make fun of Damayanti, but gentlemen taking pity on her made enquiries about her condition. At this point we are further informed that the caravan had a vanguard or a labour force which cleared the roads. The sarthavaha was not only the leader of the caravan, but during the period of the journey he acted as its master (61.121). When evening approached and everybody was tired then with his permission the caravan encamped at a suitable place (niveia, 62.4). The caravan made the mistake of encamping in the way leading to a waterpool. In the midnight a herd of wild elephants came to drink water and trampled the sleeping members of the caravan. Some of them died and others took to their heels. There was utter confusion all round. Those who managed to escape from this calamity continued their journey. In the Mahabhārata this account of the pomp and glory of a big caravan in ancient India has survived.

The caravan leaders and Indian travellers by land and sea routes, were also the carriers of Indian story literature. Seamen often related miraculous stories of Yakshas, Nagas, demons and spirits and aquatic animals connected with the seas. These stories diverted the people during their travels; such stories were adopted by literature as motifs as well. Attention may be drawn to the Samudra vanija jataka (Jataka, Vol. IV) which informs us that once upon a time some carpenters borrowed money for making furniture, but they could not complete their work in time. Pestered by the creditors the carpenters decided to migrate to some foreign land and after constructing a large ship they sailed. Following a favourable wind the ship reached an island rich in coconut and other edible fruit trees. Even before their arrival a traveller from a wrecked ship lived there who sang joyously: "They are simpletons, who eke out their existence by farming and the sweat of labour. They are not required in my domain. India! no, this place is far better." This account reminds us of the island described in the Odyssey of Homer where indolent men without any work known as lotus eaters lived on honey who invited Odyssus to live that kind of life with them, but the offer was declined by him. The jataka seems to refer to the same kind of life.

The author has raised a pertinent question whether at this time merchants entered into a partnership or agreement (samaya). From the evidence he has collected from the Jātakas, it is almost certain that merchants travelling

with a caravan apointed one of themselves as a leader or elder (jetthaka). Partnership by agreement was entered by two or more than two merchants. They agreed among themselves about the distribution of profits and losses. Though it was not necessary that every member of the caravan should enter into such an agreement. Those merchants who transacted business after such an agreement, for them the literary sources appeared to have used the word sambhūyasamutthāna. It is possible that with a view to enter into agreement about profit and loss the caravan was divided into many units. They entered into agreements of their own choice. But the merchants sailing on the same ship under the leadership of a sarthavaha whether they had entered into a partnership or not were known as samayātrika: "travelling in a body". In reality, their relationship and its limitations from the legal viewpoint is not so clear as Moti Chandra has accepted. A thorough study of samhiras, their commentaries and medieval legal compendiums (nibandhas) may throw some more light on this vexed problem. In the centuries following the foundation of the Mauryan empire many important events occurred in Indian history. The empire of Kanishka extending from Kapisa to Karnatak exercised great influence on trade and commerce, literature and religion. In this connection the author has discussed Indian geography at the time of Alexander. In reality, the Indian names given by the Greek historians owing to the Hellenisation of the Sanskrit orthography appear as if they are of foreign origin. It has been possible to find out the original Sanskrit forms of some of them with the help of Parini. The area occupied by Hastin near Nagarahara is Hastinayana of Panini (IV.4.174) and Astakenoi of the Greeks situated around Purshkalavati. The Greek historians mention two other names Aspasioi who settled in the valley of the Kunar river were the Aśvayana of Panini (IV. 1.110) and the second Assakenoi settled in the valley of the Swat river were the same as the Aśvakayana of Panini (IV. 1.99). Their other Greek name was Assakeoi which is equivalent to Panini's Asvakāh. The impregnable stronghold of the Aśvakāyanas is mentioned as Aornos, in subduing which even Alexander was put to a lot of trouble. Panini (IV.2.82) names it as Varana. Stein has identified Aornos with the present day Una or Unara. The heroic Asvaka men, women and children fought to the last, but so far they were alive they did not allow Alexander to enter the hill fortress. In other name the Gourians lived on the bank of the Gauri river. Nyasa seems to be the Naisa janapada of Pāṇini, the Greek Musicanos stood for Muchukarni, Oretai for Vartteya, Arbitai for Arabhata which has given the name of Arabhati style in Sanskrit. Brachmanoi was the Brahmana Janapada which has been mentioned by Panini (V.2.72, Brāhmaņakoshņike samjāāyām; Brāhmaņako desah yatrāyudhajīvino Brāhmankāh santi). They are mentioned both by Patanjali and the Kāsikā (Brāhmanako nama janapadah). The Kasika and Patanjali also mention Brahmana ka nama janapadah. Patanjali also mentions Sudrakas who lived in their neighbourhood. They could be identified with the Sodrae or Sambos of the Greeks. These and other identifications of Moti Chandra provide ample evidence that the source of the Greek names was Indian geography. For further identifications we have to probe our literature. The author's suggestion that twenty-four and half bhuktis of the Jain literature probably represent the bhuktis of the Mauryan empire is a sound one. Kautilya has mentioned at length several kinds of roads and the rules

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governing the customs duties. Drona mukha has, however, been referred to in the Kharoshthi inscription from Sakardara across Ohind situated on the Indus as Danamukha. The term indicated those market towns which were situated at the end of the river valleys as serving exits for the produce of those valleys. Such towns could be located on the sea-coast as well for example Surparaka and Bharukachchha served the network of valleys lying behind them. The term himsrikā for pirate boat is worth noting. In the Maurya period great attention was paid to the organisation and well-being of business; the Arthaiastra contains enough material about these topics. The Sunga period continued those rules. Whatever steps the Mauryans had taken for the propagation of sea trade, the Sātavāhanas improved upon them.

The four Scythian tribes mentioned by Strabo, their equivalents have been found in the Indian literature. For instance Asii stands for Arshika or Rishika tribe. In the inscritpion on the pedestal of the Bodhisattva image a woman named Amoha is called Asi (Arshi). In the alms house pillar inscription of Huvishka are mentioned Saukreya and Prachini which could be equated with Sacaraucae and Pasiani respectively. The Tochari is definitely Tushara. Toki tila on which-Kanishka's devakula was situated at Mat is now known as Tokari tila, mound of the Tukhāras. The references to the Rishikas in the Mahābhārata have been discussed by the author. They are the Yue-chi of the Indian history. The meaning of the Chinese word Yue-chi as 'moon-tribe' supports the view of the Adiparvan where the Rishikas are said to be descendants of the moon. According to the Sabhaparvan, Arjuna is said to have fought a great battle with the Rishikas somewhere in Central Asia. They could be located somewhere in the vicinity of the river Yarkand. If this is so then the country of the Parama-Rishikas should have been somewhere in the north which must have been the place of origin of the Yue-chis.

In the Kushāna period Kanishka occupied the silk routes of Central Asia and the great northern route at the same time. Before him no other ruler had the good fortune even partly to acquire those routes. As a result Indian culture, religion and trade spread with force from Termiz valley in the east and Sogdiana in the west. In this age manuscripts written in the Brāhmt script also reached that region. In the time of Kanishka Mathura was the biggest centre of art. In recent years archaeological researches found sculpture at Termiz in Sogdiana apparently influenced by the Mathura tradition.

The Kushāṇa art also exercised influence on eastern and western routes of Centrial Asia. Kapiśa was in this age also in the dominion of the Kushāṇas, and the finding of ivory caskets from Begram show that these caskets were influenced by Mathura art, so much so that some scholars regard them of Mathura origin. In the Kushāṇa period India's trade and commerce with the Roman empire had reached its zenith, but in this sea-borne trade caravan seems to have played a great part. Ghaṇṭāsāla from where remains of a Buddhist stupa have been recovered is

identified with Kantakasela of inscriptions and Kantakossul of Ptolemy. This is an important identification in Indian geography. The writer is quite correct in his estimate that the spread of Buddhism on the eastern sea coast of India which had once flourishing trade with the Roman empire enabled the followers of Buddhism to raise the magnificent stupas at Amaravati, Nagarjunakonda and Jagayyapeta. Similarly, on the western sea coast the Mahā-chaityas and Vihāras at Bhaja, Karle and Kanhari were due to the munificent gifts of the Buddhist businessmen who were making huge profits from the Roman trade. In the fifth chapter the author has tried to visualize how the foreign conquerors like the Rishikas, Sakas and Kushānas with their hordes on the Grand Route of India, gradually entered northern India and the Deccan and how the Satavahanas keeping the spirit of national resistance finally themselves came to an end. The long rivalry between the Sakas and Satavahanas was not only due to political reasons but also due to commerce. While the Satavahanas were firmly established in the Kalyan-Nasik region the Sakas held sway over Sopara-Bharukachchha region and these regions exchanged hands several times depending on the strength or weakness of the rivals. In this connection a new fact has been brought to light that one of the names of Kanishka was Chandana and according to the Periplus Sandanes or Chandana exercised authority on Bharukachchha. This theory of Sylvan Levi remains unsupported by known events, but at least one fact supports his theory and it is the statue of Chashtana along with that of Kanishka found in the Devakula at Mat, So far the relation of Kanishka with Chashtana remains unexplained. From the assertion of the Periplus that Sandanes (Chandana or Kanishka) controlled Bharukachchha it could be suggested that there must have existed some relationship between Kanishka and Chashtana and that Kanishka extended his control over Bharukachcha-Sopara through Chashtana. The Mat statue of Kanishka represents him as a middle-aged man, and Chashtana was a young man. It may be suggested that Chashtana was a younger brother or a close relation of Kanishka. It is also possible that he was racially related with Kanishka's family. Sylvan Levi has also suggested that between 25 and 120 A.D. the Yue-chi were in the Deccan. This is as well supported by grammatical literature where Mahishaka and the Rishika Janapadas are shown as related (Kāsikā Sūtra IV. 1. 132; Rishikeshu jātaḥ ārshikaḥ; Mahishakeshu jātaḥ Māhishikaḥ). Prof. Mirashi had identified Mahishaka with South Hyderabad and Rishika with Khandesh. Prof. D.C. Sircar, however, disagrees with this view (Epig. Ind. XXXV, pp. 69 ff). As a matter of fact in this region there were located a group of five janapadas. The Rishikas were in Khandesh; Akola and Amaravati included Vidarbha; in the Aurangabad district the spur of the Sahyadri extending from Ajanta to the Godavari was the Mulaka land, and to the south of the Godavari the region of Ahmednagar represented Asmaka and to its south-east was situated Mahishaka. In the Nasik inscription of Gautamiputra Satakarni the mention of Rishika, Asmaka, Mulaka and Vidarbha is an additional link in supporting the existence of the Rishikas in the Deccan. In the Kishkindha Kānda of the Rāmāyana as well Sugrīva describes the settlements in the Deccan-Vidarbha, Rishika and Mahishaka together (Vidarbhangishikanchaiva ramayanmāhishakānapi 41.10). The geographical references of the Rāmāyaņa mention Suvarnadvipa and the seven states of Java probably in the Saka-Satavahana period.

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The ancient capital of the Pāṇḍyas located at Kolkai (Tirunelveli) is said to have been on the Tāmraparaṇī river. In this period trade in black pepper was at its zenith. Black pepper was loaded on ships in the port of Nakhon-Dharmarāḍ situated on the eastein Malay coast, and was unloaded in the sea port of Kolkai and was despatched to Rome by Indian merchants through the Arab intermediaries. The rememberance of this trade has survived in two names of black pepper namely Dhāmapattana and Kollaka. These trade names also reached northern India where the compiler of the Amarakośa collected them.

The sixth chapter mentions the story of commerce between India and the Roman empire in which the author has made full use of the *Periplus* and Ptolemy. The port of Barbaricum situated between the seven mouths of the Indus was named because of its trade relation with Berber or East Africa. This port has also been named in *Takashaʻsiladigana* of Pāṇini (IV. 3.93). The name of Bāvarias of Saurashtra, however, could be derived from Vāvayia=Vyāpārika. The word Ramaṇaka in the Nasik cave inscription stands for the Romans.

The putabhedana for emporium and samudraprasthana pattana for ephetarium are appropriate Sanskrit equivalents. In this chapter Moti Chandra has also pointed our attention to the cotymba and trappaga mentioned by the Periplus which were the boats sailing near the Broach coast. In a letter dated 9th March 1953 he informed me that other boat names also appear in Jaina Angavijjā. The Indian boats referred by the Periplus such as cotymba, trappaga, sangar and colyndia, so far I did not get these names in the Indian literature. But this problem has been solved by the Angavijjā. Following is the text:

nāvā poto sālikā tappako plavo kaņģe velu tumbo Kumbho datī cheti-tattha mahāvakāsesu ņāvi potovā vinneyā-majjhimakāyesu koţţimbo, sālikā, saṅghādo plavo tappako vā vinnayā, majjhimanāntaresu kaţtham vā veluma vinneyo-pachchambarakāyesu tumbo vā kumbho va datī va vinneyā.

In the Indian form they appear as under:

Kottimbo = Cotymba Tappaka = Trappaga Samghāta = Sangar

In the above account boats are divided into four categories. The larger ships (mahāvakāsa) are nāva and pota, the middle sized boats (mujjhimakāya) are kottimba, samghāta, plava and tappaka and the small boats are kattha and velu, and the smallest boats are tumba, kumbha and darī. The same Angavijjā<sup>2</sup> gives a list of the following Greek, Iranian and Roman goddesses:

2. Ibid. p. 69.

<sup>1.</sup> Angavijjā, p. 166 ed. by Shri Punajavijayaji, Varanasi 1957.

Rambham Timissakasītti Tidhiņī šālimāliņī Apalā Aņādi (hi) tā vatti Airāni tti vā vade

Here Apala stands for Pallas Athene; Anahita for Anahita; Timassakesi for Artemis. Airāni probably stands for the Greek goddess Aphrodite and Tidhini probably for the Roman goddess Diana. Śalimālini is probably the moon goddess Selene.

The Periplus names Sri Lanka as Palesmoundu (Skt. Pāresamudra) which is also mentioned in the Mahābhārata. In this connection attention may be drawn to the silver tray found from Lampascos a village in Anatolia now preserved in the Ankara Museum, which represents Mother India. She wears an India-made perfumed chaplet; at one time exported to Rome. The Greek and Roman women wore them on their heads. Those chaplets were made of flower-shaped cotton pieces dipped in perfume and could be preserved for a long period. The statue of the Kambojikā in the Mathura Museum wears such a chaplet.

Pliny calls India as the source of precious stones. In this connection the words of an Arab merchant Hazrat Oman several centuries later are worth noting: "The Indian rivers are pearls, the mountains rubies and trees perfumes." In the seventh chapter basing his information on the Sanskrit and Buddhist literatures from the first to the fourth century A.D. to the eleventh century the author has solved many geographical and business problems. Its discussion on several topics in the Mahāniddesa, Milindaprasna, the Mahabharata and the Vasudevahindi are worth following. It is astonishing to see many foreign ports mentioned by the Greek and Roman writers, for the first time mentioned in Indian literature: Vesunga, Tamali (Tamiling island), Vanga (Banka island), Gangana (Zanzibar) have been properly identified. The identification of Kamalapura of the Vasudevahindi with Khmer or the Arabic Kamar is appropriate. In the Sabhāparvan of the Mahābhārata Antākhī, Romā and Yavanapur are identified as Antioch, Rome and Alexandria respectively. These were important foreign capitals with which India had well established trade relations. The sea route from Cambodia (Kamala) to Alexandria and Rome was well known to Indian sailors. Their indomitable courage in this connection gave birth to Banas dictum: "To them the earth appeared as a platform in the courtyard, and the sea as a mere channel (anganavedīvasudhā kulyā, jaladhih, Harshacharita). This high mountain of the north and the wide coastline of the seas of the south offered no impediments but served as bridges for adventurous travellers. They contributed largely in bringing Central Asia and Indonesia within the fold of Indian culture. The avadunas of the sea-merchants Purna, Suparaga and Kotikarna serve as beacon light in the Indian nautical science. The lists of twenty-four guilds, twenty-two heads of guilds and thirty professions preserved in the Mahavastu represent a flourishing world of trade providing the true index of the production of the goods.

The Tamil literature of the south also gives a convincing picture of the sea trade. The description of the port of Kaveripattinam or Puhar with its seashore INTRODUCTION

godowns, foreign merchants and markets is so realistic that it is not found anywhere else. At some time the great sea ports of Barbaraka, Bharukachchha, Murichipattana, Dantapura, Tamralipti etc., repeated the pattern of Kaverīpattinam. The statements of two Tamil poets about Muchiri is worth noting. According to them "The foreign ships bring gold to the sea port of Muchiri within the boundary of Kerala passing the frothy water of the Periyar river. This gold was transferred from larger ships to smaller boats. Bags of black pepper were brought from houses to markets and merchants loaded them on ships in exchange for gold. At Muchiri the music of the waves never stopped."

In the ninth chapter the author has thrown light on caravan and the goods they carried basing his information on the Jaina chūrņis, bhāshyas and niryuktis. Caravans were divided into four categories and the goods they carried were of four kinds. The sixteen kinds of winds mentioned in the Avasyaka churni have been adopted from the nautical terminology which appears in the later Arabic literature. The Inatadharma uses the word potapattana for sea port, elsewhere jalapattana and velatata have also been used for sea port. It is possible that kaliyaka stands for Zanzibar. When some sea merchants talked to their king about the striped horses or zebras of the place, then he specially commissioned them to bring some to him. The Jñātādharma also gives a list of articles loaded on ships; mention may be made of certain musical instruments, toys and skinful of perfumed oil, which formed a part of the cargo. The list of the foreign female slaves in the Antagagadasão is also interesting as it informs us that they came from the trans-Oxus country, Ferghana, Sri Lanka, Arabia, Balkh, Iran etc., and employed in the harems for service. This list includes many countries extending from Sri Lanka to the Pamirs and from there to Greece which indicates that part of the world with which India had trade and cultural relations in the early centuries of the Christian era.

In the Gupta period earning wealth by sea trade had got credence in the people. According to Bāṇa, Lakshmī is self drawn by sea voyage (abhramaṇena Śrīṣamākarshaṇane, Harshacharita 189). A sentence in the Mṛichchhakaṭika gives prominence to the spirit of the age. At the instance of Chārudatta the jester went to Vasantasenā to return her ornaments. Seeing the grandeur of her palace with eight courtyards, he was surprised and he told to the cheṭī whether her mistress was interested in shipping business so that she had such riches (bhavatī kim yushmākam yāṇapatrāṇi vahantī).

In the Gupta period when the great sea traders returned after earning much gold and precious stones then they distributed a part of their earnings in charity. Among the sixteen great alms of the Matsya Purana is included the sapta-smudra mahādāna, the water of the wells from the sankalpa was taken from the seven seas. Such wells have even now survived in great commercial cities as Mathura, Kášī, Prayāga and Pāṭaliputra. The figure of Śrī Lakshmī standing on a boat depicted on a sealing from Bhīṭā symbolised the gainful contemporary sea trade. Moti Chandra for the first time has rightly interpreted the figure on the seal. The

close intimacy of the Indian people with the seas is also evident from the contemporary literature and inscriptions. This is further supported by the name of Samudragupta and from the adjective in his inscription: chaturadadhisvādita rasa and in the imagery of Kālidāsa in the Raghuvamša in which the four oceans are regarded as the four udders of the cow-shaped earth (payodharībhūtachatuḥsamudrām jugopa-gorūpa-dharamivorvīm and in nihšesha pītojjhitasindhurājaḥ) (the sea is nothing but the symbol of Agastya who once soaked the sea and then threw it back), and raising eighteen yūpas in eastern archipelago (ashtādašadvīpanikhātayūpāḥ). These were the common motives of Gupta age.

In the 7th-8th century Indian trade developed further. In the very beginning we find Bana decorating the earth with the auspicious necklace (mangalakamājā) made of eighteen strands. He also imagines about sarvadvīpāntarasanchārī padalepa (Harshacharita). By the eighth century the Arabs proved very strong competitors of Indians. The horse trade in this country passed entirely into their hands and the Sanskrit names for horses were gradually being replaced by their Arabic equivalents. Haribhadra who wrote the Samarāichchakahā in the eighth century, used for the first time the Arabic term vollāha. After him Hemachandra discusses the indigenous names of horses as adopted from the Arabic nomenclatures. He even did not know that vollaha, seraha, kokaha, giyaha etc., were foreign words. He regarded them as Indian and tried to trace their fanciful etymologies from Sanskrit (Abhidhana-Chintamani IV.30.3-7). This clash between India and the Arab world increased with hurricane force and by the eleventh century it extended as far as Kāśī. In the Deccan, while the Rāshtrakūtas were friendly to the Arabs in the 8th-9th century the Gurjara-Pratiharas of the north faced the situation boldly and were feared by foreigners. In the 11th-12th century the Chauhans and Gahadavalas acted as bulwark against the foreign invaders, but in these wars of survival the most glorious part was played by the Hindu Shahis of the Panjab and Kabul. With their defeat, however, the gates of northern India lay open. Even then it took almost 450 years for the Islamic forces to reach Käši from Sindh, while other countries fell like a house of cards before the advancing forces of Islam.

Moti Chandra's identification of the naval battles depicted on the hero stones at Eksar near Bombay is also noteworthy. He has suggested that Bhoja of Malava had conquered the Konkan in about 1019 and the representations of naval battles depicted on the hero stones show his engagement with the rulers of the Konkan.

This book also acquaints us with the terms used in the construction and building of ships. The bow is termed as galahī, māthā and mukha. The decoration of the bow with animal heads is termed gilāsa by the boatmen of Varanasi. The word could be derived from grāsa which in Sanskrit architectural terminology is synonymous with simhamukha (lion-head). The Jain literature uses the word purao for the bow. The other words in current use are mathākātha (outrigger), lahartoḍa (washtrake), ghoḍī (portside), pāla kī tedhī lakdī (boom), jālī (grate), pichhāḍī (stern), puliā (derrick), mattavāraṇa (deck house), agramandira (cabin), chhalīī

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(coupling block), gunarakhā (S. gunavrikshaka), naukūpadanda, mastūla (mast). karnadhāra, patvāriā (helmsman) etc. Many technical terms used by boatmen sailing in the rivers and seas could be usefully gathered. Maiku, a boatman plying his boat on the Triveni Sangam of Allahabad, informed me that at one time a thousand boats such as pataila, mahelia, dakela, ulaki, dogi, bajara, malhani, bhaulia, panasuiya, katar, bhadaria etc., plied on rivers. I am indebted to him for the following terms: bandheja (two poles on top of the boat), batrī (parallel wooden sticks between the two poles), humas (vertical poles from the bottom to bandheja), battā (horizontal wooden strips between the humāses), galahī (the bow, from where the boatman plies his oars), baghaudī (the iron rings for the oars), bāhā (the string loops in which the oars are inserted), patta (the terminating point of the oar), sikkā or ginnī (the decorative rosette on the bow), gūna (the long thin rope used for dragging the boat against the current), janghā (the string tied round the ropedrawer), phodi (the box in which rolls of the rope are kept), ghirani (pulley), bhati (flow), ujāna (against the current), gilāsapattī (S. grāsapattī), ukerī (the wooden piece of the bow), etc. The terminology of the sailors on the western sea coast is even more interesting, for example Guj. pāţan, Mar. malakā (peel), gabhadā (leak), ota (lee), Mar. damawada (leeward), Guj. vamanī, Mar. vahanī (jettison), dhūra (hold, hatchway; Mar. palata), Mar. kathapada (hull), Guj. khokû, chabûtaro (bunk), pātyū (board), talayū (bottom), phāradā (break water), bharatī (burden), kalphat (caulking), galbat (craft), Guj. galari (derrick, crane), Mar. godī (dockyard), phanna (forward deck, forecastle), nūra (freight), nūra chitthī (bill of lading), sukanū (helm), Mar. hoka yantra (compass), kabalā (charter party), pāthar (dunnage), chhalakā (pier) etc.

It is difficult to understand the story of Indian history without understanding the great achievements of Indian sailors and sea captains and their close cooperation with caravan leaders. Particularly is this true with reference to the eastern Archipelago and the Arabian Sea. According to the Milindapraina a determined and dutiful sailor always thought, "I am a servant who works on the ship for wages. It is due to this ship that I earn my livelihood. I should never be idle and neglectful in my duties. I should always be busy in my work attentively." This thought was the true foundation of the ancient Indian shipping.

The Indian caravan always extended an earnest invitation to people to come out of the safety of their houses and lead a healthy outdoor life. Travelling with a caravan was never burdensome for an individual as it was accompanied by happiness, courage, comradeship and helpfulness. The key to this happy life is found in the following dictum in the Mahābhārata where in answer to a question from Yudhisthira, the Yaksha said:

Sarthah pravasato mitram bharya mitram grihasatah

(Āranyaka Parvan 297.45)

"To those who go out on a journey the caravan is a friend in the same way as wives are friends when they are residing in their homes."

The ever flowing current of life in the caravan attracted others to join it, its spirit of comradeship being irresistibly compelling.

The Buddhist-Jain-Brahmana and Sanskrit-Pāli-Prākrit literatures equally irrigate the vast field of Indian culture. They are linked strongly and they are full of historical references and meaningful words. The present study by Moti Chandra is an indication that for the national history of India not only the study of Indian sources is necessary, but one has to approach the Greek, Chinese and Arabic sources for its better understanding. Many studies of this nature are required. Then in years to come we will be able to raise the magnificent edifice of Indian history.

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V. S. AGRAWALA

# PREFACE

LMOST TWENTY-FIVE years back I studied the Jain and Buddhist literatures A with a view to find out such material bearing on certain aspects of Indian social institutions about which the Sanskrit literature is almost silent. My experience in this field of study was that in the canonical and story literature of Buddhists and Jains such accounts have survived which throw light on ancient trade routes, trade, organisation of the caravans, and the position of the caravan leader. These ancient stories inform us that in spite of manifold difficulties the Indian caravan always plied on land and sea routes and it was due to their indomitable courage that Indian religion and culture gained a firm foothold in Greater India. Unfortunately the ancient Indian literature has no work like the Periplus of the Erythraean Sea or Ptolemy's Geography which has survived. But even then some ancient Indian works like the Mahaviddesa and Vasudeva-hinds and the Arthasastra contain geographical information which informs us that the Indians were well acquainted with land and sea routes. Moreover, we are further informed about different kinds of routes, the troubles encountered by travellers, the construction of sea-worthy ships, export and import etc.

There has been a very intimate relationship between trade, trade routes and politics and, therefore, I have tried to elucidate contemporary political conditions in different periods of Indian history. The political conditions help us to comprehend the history of Indian trade and commerce in a realistic manner. For instance, in the early centuries of the Christian era the foundation by Kanishka of an empire extending from the confines of China to whole northern India opened the great silk route to Indians, and secondly the establishment of the Roman empire opened the Red Sea route which was the preserve of the Arabs to Alexandrian Greeks and some Indians as well. It is due to these political conditions that in the contemporary literature and inscriptions we get an impression of the growing trade between India and the Roman empire. The archaeological finds from Arikamedu, Ankota (Baroda), Brahmagiri (Kolhapur), Kāpišī (Begram) and Taxila also throw important light on the trade relations between India and the Roman empire. However, after the downfall of the Roman empire and the Kushana empire difficulties again arose on the trade routes and consequently the trade suffered. One of the reasons behind the war of the Sakas and Satavahanas was the lucrative trade with the Roman empire. Both the powers wanted to control the port of Broach which was the key point in this trade. The efforts of the Satavahanas to control the trade route between Ujjain and Mathura was with the same objective. The battle for Broach resulted in shifting most of the trade activities to Muchirī (Cranganore) to which taking advantage of the monsoon wind the Roman

ships sailed directly. Some scholars are of the opinion that because of the constant warfare between the Sakas and Satavahanas the Indian colonisers proceeded to Suvarnabhūmi. Perhaps trade must have been one of the reasons for Rajendra Chola leading a naval expedition to Suvarnabhumi. Literature throws important light on the trade routes and caravans using them. They had to face many difficulties including robbers and wild animals. The caravan leader looked after the safety of the members of the caravan and made arrangements for their food and their security. In the sea-voyage the dangers were even more such as cyclones, submarine rocks, dangerous aquatic animals and pirates. Moreover, while transacting business in foreign lands merchants were often cheated. The safeguard against these dangers was the skill of the skipper and the caravan leader. The Buddhist literature informs us that in ancient India there was a book on nautical science known as Niryāmaka Sūtra. The study of this work was incumbent on sea captains, seamen of all categories. The literature provides information about the means of communication such as bullock carts, horses, donkeys, camels, oxen, boats and ships. Now and then technical words about shipping are found. But we have to depend on art for information about these means of communication. Except at Bharhut, Amaravati, Ajanta and some Satavahana coins Indian boats and ships are seldom represented. Fortunately many ship types have been represented on the bas-relief of Borobudur. Whether these ships are of Indian or Indonesian origin it is difficult to say. I have assembled all the material in Chapter XIII.

The book is full of Sanskrit, Pali, Prakrit, Greek, Latin, Arabic and Chinese names and therefore one word at many places has been pronounced differently. I hope my readers will excuse me for these discrepancies.

I am also thankful to friends for their useful suggestions. The late Dr. V.S. Agrawala had not only advised me from time to time, but also wrote an introduction to my book. Shri Wakhankar and others helped me in preparing some drawings. My wife Smt. Shanti Devi has always shared my difficulties. I have no words to thank her.

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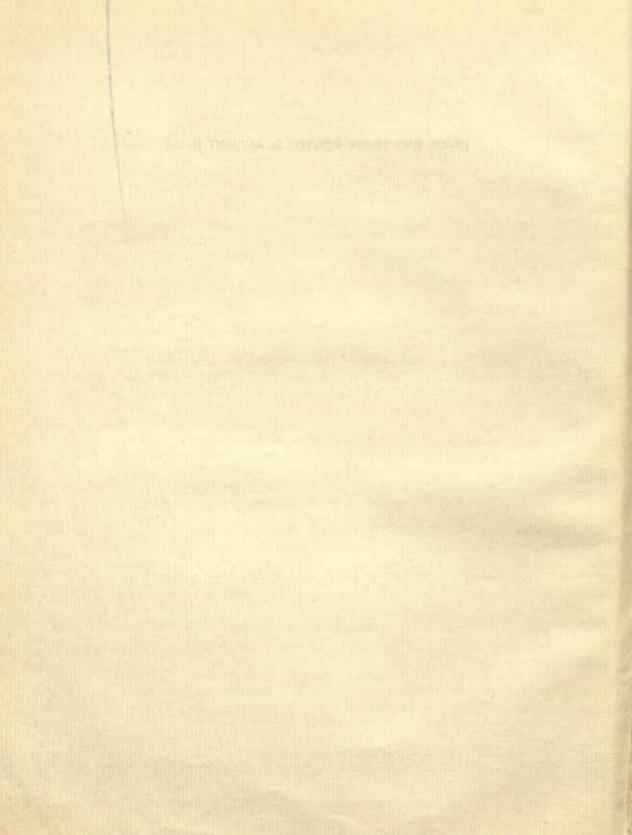
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#### TRADE AND TRADE ROUTES IN ANCIENT INDIA



#### CHAPTER I

### ANCIENT TRADE ROUTES

GEOGRAPHY PLAYS an important part in the evolution of a culture. The changing climate not only affects the life of the people but also influences their character and thought processes. For instance, in the arid regions where man has to stage constant war against nature, he develops a rough character and is prone to raids and robbery which is in direct contrast to the mild character of the peoples living in tropical countries, because nature easily satisfies their demand and therefore their character is mild. The trade routes of a country also depend on certain geographical factors. The routes passing through mountains and deserts are naturally very difficult, but the same routes passing through the open valleys, rivers and vast plains become easier.

It is difficult to ascertain the time taken in the evolution of trade routes in this country, though ages must have passed in their evolution and innumerable tribes must have participated in giving them their distinctive character. The nomadic tribes in search of fodder for their flocks must have got themselves gradually acquainted with the natural routes of the country, but even before them, the primitive hunters in search of their prey must have treaded on the natural routes which later on assumed the character of highways. This search for natural passages must have continued for ages, and in course of time the whole country got covered with a network of trade routes.

The Vedic literature constantly remembers these early path-finders. Agni is designated as "pathi kṛu" because by burning vast jungle tracks it created routes following which the Vedic culture entered the farther corners of India.

The pleasures and pains of travel in ancient times depended on the geographical situations of the trade routes and the measures taken to safeguard them against predators and wild animals. When we think of ancient routes of which our conquerors, rulers, pilgrims, wanderers and merchants made use then we will have to forget about our modern roads passing through smiling fields on both sides, villages, towns and cities. Ancient India had no doubt some big cities but the majority of the people lived in villages and most part of the country was covered with dense forests through which the roads passed. These roads were often infested with wild animals; robbers lay in wait for travellers and as the food problem was difficult travellers had to carry their own provision. It was very dangerous to travel alone on these roads and therefore people travelled together in well organised caravans

which provided reasonable comfort to their members. Even though organised in caravans, merchants were subject to many dangers. These travellers were not merely traders but were also carriers of Indian culture. Travelling on the Grand Route of Me north, Indian merchants entered Central Asia and Syria and then returned back to their country by the same route. From this very route, from time to time, many races and tribes entered India through north-western passes but only after comparatively short durations they became merged with the culture and the people of this country, so that today it is very difficult to analyse the tribal elements in Indian people. The importance of trade routes thus impels us to study them in some detail.

Before attempting to study the network of trade routes in this country it is necessary to study some of its geographical bases. In north-eastern India there are hills and valleys covered with dense forests which in ancient times at least served as an impregnable barrier for the free ingress of the Tibeto-Burman tribes. For traversing these forests and hills there was a track between Manipur and China from which some trade trickled through China to India and vice versa. In the second century B.C. when the Chinese ambassador Chang-kien reached Bactria, he was surprised to see there bamboos imported from China. In reality the bamboos from Yunnan reached the Middle Country through Assam and from there they were transported to Bactria through the Grand Route. But in spite of this sporadic trade the north-eastern route did not have much importance because it was not easy to traverse it. However the impassable barrier of the Himalayas in north-west weakens a little and here is the trans-Indus country which nature has made very cold and where there are very high peaks and a narrow passage which skirts to the north and the Chinese Turkestan, but this passage is also not an easy one. It is covered with the bones of innumerable beasts of burden and the members of caravans who lost their lives through the sudden vagaries of nature. It is, however, remarkable that in spite of manifold difficulties caravans kept this route open for trade and commerce and the peaceful expansion of Indian culture to far off countries. This trade route also was used by innumerable nomadic tribes of Central Asia for migration to India. In the trade routes of the world perhaps this route is the ugliest. It lacks any trace of vegetation and the accumulation of ice also does not enhance its beauty, because there is scanty snowfall on the Himalayan plateau. But in spite of all these difficulties this route serves as a northern gateway to Indian subcontinent, and from very ancient times to recent years it had some commercial and strategic importance. In this route near Gilgit, is the meeting point of the boundaries of China, Russia and Afghanistan and therefore its political and strategic importance could not be exaggerated.

However, with the recent expansion of the Chinese sphere of influence and its occupation of Tibet, this route has now lost its insignificance and is now connected with modern roads with China proper and they serve as supply foutes of military goods to Pakistan. From these routes China also attacked India. These routes which were with great difficulty traversed by horses and yaks are now crossed by trucks and mechanised vehicles. In the region adjoining Tibet with India the Chinese are also building military roads and the regions of Himalayas which were

once considered impregnable have been opened to military roads endangering the safety of this country.

It would be interesting to inquire what changes had been effected in the northern Grand Route in the last 5,000 years. Geographically there has been almost no change in the countries through which it passes, but with the recent political changes they remain no longer so much isolated as they were before. As we have already noticed some amount of trade was carried on in this route in ancient times, but now it has a network of well built roads not only for the passage of armed forces but also Chinese merchants have increased the volume of trade on it.

In order to estimate properly its commercial importance, we should not be surprised why in the thirteenth century the Mongols raided Balkh and Bamyan and why in the nineteenth century, the British forces stopped the advance of the Afghans. No doubt the importance of this route to the north-western part of the Indian sub-continent, though it has not lost completely its importance to India. Its political importance is ever growing and India has to keep constantly a watch on what is happening on that sector of the Grand Route. After the partition of the country a constant fight between India and Pakistan for Kashmir has brought in focus the importance of this route for our country and the anti-Indian policy of China has given it added importance. It was through this route that India was attacked innumerable times, and the British afraid of the Russian Imperialism in the nineteenth century, tried to strengthen its defence constantly. Afraid of some future attacks the British fortified Khyber and Attock and built a series of military cantonments in the Panjab. After the partition of India, the strategic importance in this sector of the Grand Route is the concern of Pakistan, but even then it is important that the Indian people should have their eyes on the movements on North-Western Frontier of the Indian sub-continent, and fashion their foreign policies according to the exigencies of time. This sector has to be safeguarded against Pakistan and its allies. We do not mean, however, that the Grand Route from & north-west is the only passage to this country from outside. We, however, want to stress the importance of this route because it connected India to the west. If we study the map of northern India, Afghanistan, Iran and the Middle-East then we will be convinced that the Grand Route skirting the deserts of Iran and Sindh strikes directly to the north towards the valleys of Chitral and Swat. The ancient and modern travellers have constantly pointed out to the difficulties of this route Vour even then the Vedic Aryans, the soldiers of Cyrus and Darius, Alexander and Wis successors, the Scythians, the Parthians, the Tukharas, the Huns and the Turks entered India through this very route via Balkh. Even in very ancient time merchants, Buddhist monks, artists, doctors, astronomers, magicians and adventurers travelled on this route and thus this route served an important cultural link between the east and the west. For a very long time this route was the only means of contact with India and China because the north-eastern route between these countries was almost impassable but it was only open when the Americans during World War II made a road to connect India with China. It was through this route, however, when the army of independence under Netaji Subhas Chandra Bose tried to

enter the country but failed in its objective. However, after World War II was over, the route was abandoned and has been reclaimed by the jungle. But with the Chinese problem coming large on this frontier its defences have become a difficult problem.

#### 1. THE ANCIENT TRANS-IRANIAN ROUTE

The Roman history gives us ample information about the great Achaemenian routes. In the early centuries of the Christian era these routes were used for by the Chinese silk trade with the west. In the network of these trade routes there were three chief routes from the Mediterranean to the Far East. These routes at times ran parallel to each other and at times they cut one another and proceeded onwards. In this connection we should also not forget the northern route which skirting north of the Black Sea and the Caspian Sea and crossing the hill ranges of Central Asia reached China and the sea route via the Red Sea to the Mediterranean. After the discovery by the Hippalos of the monsoon ships did not sail by the coastline but sailed in the open ocean. But the chief route passed between the two routes. It passed Syria, Iraq, and Iran and then crossing the Hindukush entered India and crossing the Pamirs reached China.

Due to the close commercial relations between the East and the West, the cities of Syria attained great prosperity. Antioch becoming the boundary line of the trade routes from China and India became a very big prosperous city. Some cities in the west as Antioch, Rome and Alexandria mentioned in the Mahābhārata, as Antākhī, Romā, and Yavanapurī became very important centres of trade and commerce. The western sector of this route has been described by Isidore of Charax for the information of Augustus.

The Roman traders following the land or sea route reached Antioch, from where the great trade route reached the Euphrates river and crossing it the route reached Nicephorium via Anthemuseuns. From there following the left bank of the Euphrates either it reached Seleucia or after travelling through the desert for three days from the Euphrates it reached Ctesiphon, the Parthian capital, and from there it proceeded to Baghdad. From there turning to the east it proceeded to the Iranian plateau which includes Iran, Afghanistan and Baluchistan and which was under the control of the Parthians. Passing Behistan the route reached Ecbatana (modern Hamadan) the ancient capital of the Achaemenians and from there it proceeded to Rhagae that is Rayy in the immediate neighbourhood of Teheran. From there leaving the salt desert of Dasht-i-Kavir on the right, it crossed the Caucasus and reached the ports of the Caspian Sea. From there this route continued to the east in the direction of Hekatompylos the ancient Parthian capital of Damghan. Even today this is the recognised route between Meshed and Herat. After Shahrud commenced the "four stages of terror" so named by the Turkoman raiders who taking advantage of the terrain of the Elburz attacked pilgrims and merchants alike. Owing to these depredations, the route took to more arduous direction nearly 200 Km. to the west. Thus it traversed the mountains to reach Hyrcania i.e. the

basin of the Gargan. There it was confronted by the desert of Karakum and, therefore, it was diverted to the east to pass the oasis of Askabad, Tegin and Merv and finally reached the grassy lands of Bactria.<sup>2</sup>

The fame of Bactria rested on two factors, firstly it was the meeting place of the four great nations, Indians, Iranians, Scythians and Chinese. The merchants of these nations made arrangements for the fodder of their beasts of burden here and also exchanged the products of their countries between themselves. Even today though the importance of Mazär-é-Sharif in Balkh has considerably diminished merchants assemble here, and secondly though Bactria was noted for its importance as a trade centre it was never a big city because its inhabitants were mostly nomadic who did not like sedentary life.

From Balkh the Grand Route striking towards the east reached Badakshan, Wakhān and the valleys of Pamirs and finally reached Kashgar and then proceeded to China through either of the two routes in the north and the south which passing through one oasis to another traversed the desert basin of the Tarim. However, more important than these was the route which striking north reached the Oxus and crossing it passing through Sogdiana and Scythia joined the great route of the Euro-Asiatic plain. Finally from the southern gate of the city of Balkh the Grand Route proceeded to India. After crossing the Hindukush and the Indus it joined at Taxila. The great interior route is now known as the Grand Trunk Road. Bifurcating at Mathura its one branch proceeded to Pāṭaliputra-Palibothra-Patna and thence to the port of Tamralipti (Tamluk) and the other proceeded to Ujjayint-Ozene-Ujjain and thence to Bharukachchha-Barygaza-Broach on the Gulf of Cambay, thus opening the interior of India for the sea trade.

The sector of the Grand Route from Balkh to Taxila was known to Kautilya as Haimavatapatha. It is evident from an inscription at Sanchi that the Buddhist monk Kassapagota used this route for preaching Buddhism in the Himalayas. The route passing through the Hindukush to Kandhar has not yet been thoroughly examined. On the contrary we have good information about the route passing from east to west. Formerly Herat situated on this route was regarded as key to the Indian sub-continent but in reality the key to this country has to be searched in Kabul or Jelalabad or Peshawar or Attock.

The modern city of Kandhar is connected to Indian sub-continent by two routes, one route striking to the east reaches the Indus near Dera Ghazi Khan and from there proceeds to Multan. The second route striking south-east reaches the Bolan Pass and from there proceeds to Multan and through Shikarpur reaches Karachi. This is more direct route from Herat to Indian sub-continent which meets the Mery route at Kush.

The above Haimavatapatha could be divided into three sectors, the Bactrian sector, the Hindukush sector and the Indian sector, though due to many geographical difficulties it is difficult to distinguish these routes from one another.

Balkh has been described in Indian literature since very ancient times. The Mahābhārata<sup>4</sup> tells us that Balkh or Vāhlīka produced very good breed of mules and its people did extensive trade in Chinese silk, pashmīnas, jewels, perfumes, etc. Almost a century back the English traveller Alexander Burnes visited Balkh. His travel book gives a vivid account of its inhabitants, its climate and its deserts.

According to Burnes caravans in this land travelled during the night following the stars for their direction. In winter the land became very difficult, but in the spring when it rained, the pastures turned green and the people engaged themselves in agricultural operations. Balkh is famous for its horses and camels. The inhabitants of this region are a mixture of Iranians, Tajiks, Uzbegs, Hazaras and Turkomans. The Grand Route from Balkh to Indian sub-continent at first reaches Patkesar where the route from Samarkand joins it. This route does not divide itself till it crosses the sand dunes on the way to Tashkurghan. In the Hindukush range there are many tracks but from the point of view of the Grand Route the knowledge of the river system of the Oxus and the Indus flowing to the east is necessary. The two rivers Surkhab in the north and Ghorband in the south, and the two rivers flowing to the west are Andarab in the north and the Panjashir in the south. In this way the eastern route of Balkh passing through the high valleys of the Andarab reaches Khawak and then passing through the high valleys of the Panjashir descends. In the same way the western route, before descending from the valley of the Ghorband route passes from the north of Bamvan.

As we have observed above the routes in Central Hindukush follow the courses of the rivers. In this part of the Hindukush there are no roads in the proper sense, but in the northern part the routes follow the courses of the rivers Balkh, Khulm and Kunduz.

As we have observed above the route passing the pass of Khawak is very old. In the Mahābhārata<sup>5</sup> the tribal name of Kāyavya or Kāvakhya is mentioned. Perhaps the pass took its name from the tribe. It is also possible that the Kāvakhyas lived in the valleys of the Panjashir and Ghorband lying at the foot of the Hindukush. These valleys lie to the north of the Khawak pass.

On the Khawak route journey between Tashkurghan and Balkh is easy in the spring, but in the summer it is difficult to get water in the desert and, therefore, in this season the caravans taking a more circuitous mountainous route along the Khulm river reach Haibak, after this proceeding along the Kunduz river and crossing a saddle the oasis of Robat comes. Perhaps in the Mahābhārata times the Kundamānas lived in this region. Proceeding from here the route passing Narin, Yarm, and Samandan reaches Khawak, after this on the left the route proceeds to Kokacha and the mines of lapis-lazuli. After five stops comes the high valley of the Panjashir. For crossing the Hindukush the route turning from the village of Sangburan passes Andarab, Khinjan and Doshākh. After Doshākh, in Jebel-Serāj and through Bamyan the route joins the Grand Route to India.

This old route to Bamyan coming out from the southern gate of Balkh reaches Karakotal without any difficulty. From here to the plateau of Kapiša there are three valleys which have to be crossed before leaving the mountainous road.

To the north of Bamyan lies the Hindukush and to the south Koh-i-baba. The inhabitants of this region are mostly the Hazaras. The importance of Bamyan lies in the fact that it lies midway between Bactria and Peshawar. The Bamyan route was so difficult that in order to receive the divine help merchants had carved the gigantic statues of the Buddha in the hill side.

After leaving Bamyan there appears the confluence of two rivers and the meeting point of two routes. One of the routes passing Koh-i-baba proceeds to the high valley of the Helmand. Proceeding along the high bank of the Surkhab river this route turns to the north and passing Ghorband reaches Kapišī.

After passing Bamyan, Salang and Khawak and situated in the mountain ranges of Kafiristan, Hazarat and on the right foot of the Hindukush lies a very fertile area which is irrigated by the Gherband and the Panjashir rivers in the north and by the Kabulrud and Logar in the south. This plain was very famous for its commerce in ancient times because all the passes of the Hindukush open in it. Passing through Kāpišī the Central Asian commerce was carried to India.

According to Hsuan Tsang<sup>8</sup> in Kāpišī goods from all countries were available. Babur, at a much later date, observes that here the goods not only from India but from Khorasan, Iraq and Rum were available. From the excavations at Begram it is evident that at least in the Kushāṇa period, Kāpišī had close commercial relations with India and Rome. Because of its geographical situation it was bound to become the capital of that region.

Panint in his grammar (IV.2.99) has mentioned Kapisī. The Mahabharata mentions it and on certain Indo-Greek coins the name Kapist appears. This old city was situated on the confluence of the Ghorband and Panjashir. However, it appears that in the eighth century the influence of the city was declining because the Arab geographers and Mongol historians only speak of Kabul. It may be noted here that there were two Kabuls; one the Kabul of Buddhist period which was situated on the bank of the Logar river and the second the Muslim Kabul which is situated on the Kabul-rud. King Aman Ullah Khan wanted to lay the foundation of a third Kabul designating it as Darul-aman but before his wish was fulfilled he had to flee the country. According to its height the valley of Kabul is divided into two parts; one part extending from Jelalabad to Attock is on geographical basis a part of the Indian sub-continent, while the second part forms a part of the Iranian plateau. The unequal height of these two parts affects their climate, and the character of their people. The routes from Kabul to the Indian sub-continent proceed along the Kabul and the Panjashir rivers, though the ancient route did not follow the Kabul river. Coming out from the ravine of the Ghorband river the route to the Panjab at first turned to the south. The route from Kapisi to Lampaka

and Nagarahara (near Jelalabad) left the deep valley of the Panjashir. In the same way the route from Kabul to Jelalabad avoided the deep valley of the Kabul river.

It is known that in the eighth century Kabul was the capital of Afghanistan, but according to Ptolemy, in the second century A.D., Kabul existed under the name of Karoura or Kaboura (I.18.4) and its remains may be still seen on the right bank of the river Logar. Perhaps the route between Arakhosia to Balkh followed by Alexander passed through Kabul crossing the Ghorband river by a bridge. This route reaches Charikar, then passing Khair-Khaneh it reaches the fertile plain where the ancient and modern Kabuls are situated.

From Kabul, one route reaches Butkhak and from there crossing Tangee-Gharu it joins the Grand Route. The second route striking to the east from the right enters the pass of Lataband and then reaches the Tegin river. From there a track passing the Karkacha pass joins the Grand Route above Jagdalik but the Grand Route making a right angle proceeds to Seh-Baba in the north of the Tegin, after that turning to the south-east it crosses the Jagdalik route. Then going up and down it crosses the Surkhab river at Surkhpul and in the end it leaves the mountains at Gandamak. From here the route striking to north-east reaches Jelalabad.

The route from Kāpišī to Jelalabad proceeds to the east then turning to southeast it crosses the joint course of the Ghorband and Panjashir rivers then passing through Nijião, Tagão, Doab and Mandrawar and finally crossing the Kabul and Surkhrud rivers it reaches Jelalabad.

As we have observed above after Jelalabad (which Hsuan Tsang has rightly regarded as the frontier of India) another region begins. Alexander had conquered this territory from the Mauryas, but after twenty years of this incident Seleucus I returned it to its former rulers. After these events, this territory remained in the hands of the foreign invaders for a long time but in the end it came within the sovereignty of the Mughals along Kabul. In the end of the eighteenth century after Nadir Shah it passed to the control of Ahmad Shah Durrani and during the British period of Indian history it became the frontier land between India and Afghanistan.

Between the Indus and Jelalabad there lies a mountain which separating the valleys of the Kunar and the Swat and forming a circle in the west and assuming the name of Safedkoh, it limits the province of Jelalabad in the south and east. No historical account of the network of the routes in the hilly regions of Gandhara is available. According to Arrian (Anabasis)<sup>10</sup> Alexander accompanied by part of his army remained in the valleys of the rivers on the left of the Kabul river, till his entire army passed its right bank. Some historians have tried to assign Alexander's route through the Khyber Pass but they did not know that by that time the Khyber Pass route did not exist. It should also be noted that for reaching Peshawar it is not necessary to pass the Khyber Pass. As a matter of fact the foundation of Peshawar was laid 400 years after Alexander. There seems no reason that Alexander for reach-

ing Pushkaravatī, the capital of Gandhara in his time, should have avoided the straight route and taken a circuitous one. There is no doubt that passing the Michni pass which lies between Nagarahara and Pushkaravatī he managed to lead his army.

The Grand Route of the Indian sub-continent leaving the mountainous region crosses the Indus at Attock. It is believed by scholars that in ancient times as well the Grand Route crossed the Indus at Attock though in the Mahābhāratan Vrindātaka which could be identified with Attock situated in that region, it is difficult to believe that the Grand Route crossed the river only at Attock, though it is mentioned in the Mahābhārata that the wardens of marches were appointed there to safeguard the point of crossing. The acceptance of Attock as the crossing point of the Grand Route is due to the fact that in ancient times Udabhānḍa (Rājtaranginī), Udakabhānḍa (Hsūan Tsang), Weyand (Alberunī), Ohind or Und was a suitable crossing. Even to this day it is called Dār-e-Hindī or the gateway to India. The army of Alexander crossed the river at this point by a boat bridge. Hsūan Tsang as well crossed the river here on elephant back and the army of Bābur also followed the same route. However, in the time of Akbar, Attock became the point of crossing.

The course of the Grand Route which is not so easy to trace has three historical stages: (i) that which Alexander and his successors took to reach Pushkaravati, (ii) that which in the time of the Chinese pilgrims passed by Purushapura (Peshawar) but crossed the Indus at Udabhanda and (iii) the modern route which goes directly to Attock.

The route from Jelalabad to Pushkaravati (Charsada) upto Dakka is sandy and rocky. To its north live the Mohamands (Pāṇinī, Madhumanta) and to its south in the Safedkoh live the Shinvāris. Striking to the east it crosses two kotals to reach Michni. After Michni, because of the descent of the rivers, the course of the old route cannot be traced properly, but fortunately the Kabul river turning to the south-east has left traces of the Grand Route. Here following its left bank it reached the confluence of the Kabul and the Swat which lay at a farther point than the modern confluence at Pushkaravatī, the old capital of Gandhāra. In its place have now sprung up the villages of Prang, Charsada, and Rajar. From here the Grand Route striking directly to the east reached Hoti Mardan which has been called as Po-lu-cha for Hsūan Tsang and on the right is situated the rock inscription of Aśoka at Shahbazgarhi. From here the Grand Route proceeding to south-west reached Und. After crossing the Indus it entered the domain of Taxila and passing Hasan Abdal it reached the city of Taxila.

The route between Kabul and Peshawar came into existence at a later date. A legend says that a deity in the form of a shepherd pointed to Kanishka a place where to raise the highest stūpa of the world and the city of Peshawar was founded there. Whatever truth there may be in the legend, there is no doubt that to build a city in a low area irrigated by the streams flowing from the Afridi Hills where till the sixteenth century tigers and rhinoceros were hunted could only be attributed to the whim and cynicism of a king.

In the first century of the Christian era Peshawar became the winter capital of the Kushāṇas and, therefore, it became necessary to join it with Kāpiśi, the summer capital of the Scythians. This route passing through Khyber reached Dakka which was fortified by the British for its safety. The route between Dakka and the fort of Jamrud is full of pitfalls, but on this route lies the boundary between Pakistan and Afghanistan. Ali Masjid is situated below Landi Kotal. In the end the old route joining the modern route reaches Peshawar Cantt.

For reaching Taxila the Pushkarāvatī route had to cross the joint currents of the Kabul and Swat. However, they could be crossed by taking the Khyber route. The route from Peshawar to Und through Pushkarāvatī and Hoti Mardan covered a greater distance but on this route the river could be crossed in every season. It is evident from a map of the region that the Kabul river opens in the Gandhāra plains. In some former time the river changed its course to a broader level with the result that its modern confluence with the Swat appears below their confluence in the time of the Chinese travellers. The downfall of Pushkarāvatī might have also been due to the shifting of the confluence.

Babur for reaching the Panjab deliberately chose the point or the river which was fordable. It means that there must have existed some other ford in this river as well. The route from Kāpišī to Pushkarāvatī and Taxila has many rivers. But after the downfall of Kāpišī and Pushkarāvatī, when the Grand Route passed between Kabul and Peshawar then it had to avoid many fords. This route follows the southern bank of the Kabul river and, therefore, naturally it strikes towards Attock where the Indus river narrows down thus providing a suitable place for bridging.

A distinguishing feature of the ancient routes was that they connected ancient capitals with one another. When these capitals changed the routes also changed; their directions. The change of capitals was due to reason of commerce, politics, religion, change in the course of the rivers, and also due to the whims of the rulers as is the case of two Bamyans, two Kabuls and three Taxilas the capitals were situ-V ated in the same valleys. Sometimes after the decay of old cities, new cities sprang up in their neighbourhoods as Mazar-é-Sharif took the place of the ancient Balkh. Kabul came into being in place of Kapist, Peshawar sprang up in the place of Pushkaravati, Attock came up in the place of Und and Rawalpindi in the place of Taxila. If we inquire about the northern and southern routes of the Hindukush in the different periods of history of the sub-continent, we come to know that the route did not follow the same course in all the periods. There has been very little change in the mountainous regions through which the route passes but that was not the case in the plains. For example the route between Balkh, Bamyan, Kapisi, Pushkaravatī and Udabhānda with its final goal as Taxila was used by Alexander, his successors and many nomadic tribes. The same route starting from Mazar-é-Sharif or Khanabad and passing Bamyan or Salang, Kabul, Peshawar and Attock reaches Rawalpindi. The route in medieval times passed in between the modern and ancient routes. After the foundation of Purushapura, the ancient Grand Route changed its direction and gradually the Pushkaravati sector became less frequented. In the

eighth century after the fall of Kapisi and Kabul the course of the Grand Route was also very much affected. In the ninth century when Kabul and Khyber were directly joined then the ancient route to Pushkaravatī almost came to a stop. The Grand Route was also joined with the rivers flowing towards Sindh. According to Ptolemy the waters of the Kunar came from the heights of Chitral, and, therefore, it was difficult to navigate below Jelalabad. Now the question arises whether Ptolemy's assertion depends on some local legend because even today the people of Peshawar believe that the Swat river is a bigger one and the Kabul is only its tributary. The joint stream of the two is known as Landai which after joining the Panjakora is named as Swat. Whatever truth there may be in the present belief, after Kabul became the capital city and thus gained political importance, the Kabul river began to be regarded as a bigger of the two. No historical account of the source and the course of the Kubha or Kabul river is available. But there is hardly any doubt that this river followed the ancient route and, therefore, the river and the route became synonymous. If this is true then the Kubha river did not assume its name below Jelalabad only but it is also true for the main stream which follows the routes to ancient capitals.

It is also a notable fact that Kāpiśī, Lampāka, Nagarahāra and Pushkarāvatī were situated on the Kabul river flowing from the west to east. On its right bank the combined waters of the Kabul and Logar appear like one stream but above Kāpišī the importance of the Panjashir diminishes and the Ghorband begins representing the upper parts of the Kabul river. In this way the Ghorband flowing on the heights of Peshawar and assuming the form of a big river joins the Indus.12 Very little information is available about the route between Balkh and Taxila from Buddhist and Sanskrit literatures. But fortunately, the Mahabharata mentions the tribes inhabiting that area and Panini also gives many names of the tribal people residing in that area. In the universal conquest of Arjunatt in the east of Bahalika the route to Kashgar through Badakshan, Wakhan and the valleys of the Pamirs is pointed out. The Dvyakshas of Badakshan were known to Indians.15 The Kundamanas16 perhaps lived in the valley of Kunduz, the Kambojas perhaps also followed this route. The Mahabharata also knows the Sakas, Tukharas, and Kankas who lived in the regions in which crossing the Oxus river the route proceeds to Sugdha and Sakadvipa. The Grand Route proceeded to the plains of Eurasia and joined the Grand Route there.17 The Karpasikas on the route between Balkh and the Indian sub-continent perhaps indicate the ancient Kapiśt.18 On the Central Asian route perhaps the Meru indicated the Karakoram and Mandara the Kuen-lun. Perhaps Sitoda<sup>19</sup> stands for the Khotan river. The nomadic tribes of this region are addressed as Jyoha, Paśupa, and Khaśa, who perhaps today indicate the Kirghiz people, Beyond Kashgar are mentioned the Chinese, the Hunas and Sakas on the Central Asian route. 20 Uttarakuru later on perhaps named as Krorain in the Saka language, is identified with Loulan in Chinese history.

The Indians perhaps also had the knowledge of the route which starting from Herat proceeded to Baluchistan and Sindh. The people of Baluchistan depended on rain for agriculture and their habitations were mostly situated on the sea-coast. The people of Herat were perhaps known as the Hārahūras. The trans-Indus region was inhabited by Vaiyāmakas<sup>21</sup> who lived in Baluchistan and also known to Greek geographers as Rambakia and also the Pāradas, Vangas and Kitavas.<sup>22</sup> This route to Baluchistan passed through Kohat and Mūla and reached Sindh. The inhabitants of Mūla are called as Mauleyas in the Mahābhārata and to their north lived the Śivis.<sup>23</sup>

### 2. THE TRADE ROUTES OF NORTHERN INDIA

In the plains of northern Indian sub-continent the Grand Route from Peshawar proceeds towards east bending slightly towards north. The routes in the plains of Sindh follow the rivers in the Panjab and striking a little towards south proceed to the west. History is a witness to the fact that the Grand Route from Taxila proceeded towards Kāši and then to Mithilā. The Jātakas tell us that the Grand Route between Vārāṇasī and Taxila passed through very dense forests which were infested with highwaymen and wild beasts. Taxila was in those days the meeting point of Indian and foreign commerce. The Buddhist literature informs us that merchants of Vārāṇasī, Śrāvastī and Soreyya (Soron) went to Taxila for trade. 24

From Peshawar to the Gangetic Plain there are two routes. The railway line from Peshawar to Saharanpur and then proceeding to Lucknow is indicative of the northern route and from this route the outer ranges of the Himalayas are not far. For touching Lahore this route bends slightly to the south of Wazirabad but reaching Jullundur it again straightens itself. Parallel to this route is the southern route which from Lahore proceeds to Raiwind, Ferozepur and Bhatinda and then reaches Delhi. At Delhi this route crossing the Yamuna enters the Doab and then following the right bank of the Ganga reaches Allahabad. There it again crosses the Yamuna and skirting to the south of the Ganga proceeds onwards. From Lucknow the northern route proceeding to the north of the Ganga reaches Tirhut and from there via Katihar and Parvatipur it reaches Assam. The southern route reaches Varanasi from Allahabad and then following the right bank of the Ganga reaches Bhagalpur and then Calcutta or via Patna also reaches Calcutta.

These two routes have many branches which connect both. The Varanasi-Lucknow branch line via Ayodhya is unable to join the northern and southern routes because beyond Banaras the Ganga becomes very broad and only steam boats are able to join the northern and southern routes. Because of the dearth of bridges the routes to Tirhut, Bengal and Assam have only their local importance though this drawback is being constantly remedied by building a large number of bridges. Therefore, though these routes could not be counted as very important routes of India their military importance is now beyond question. After China attacked India through these unimportant routes it has been proved that even the most difficult routes are unable to stop the advance of a modern army.

Beyond Banaras the Ganga and Brahmaputra have great commercial importance. From Gwalando, where the Ganga and Brahmaputra meet, steamers sail to Assam upto Dibrugarh. After the partition of the country this means of transport was greatly disrupted though with the independence of Bangla Desh things have much improved. The new railway line in north Bihar joins northern India with Assam though its natural direction is eastern Bengal which under Pakistan had completely stopped the traffic. With the establishment of independent Bangla Desh the direct railway traffic is bound to start between India and Assam.

From the Peshawar-Parvatipur sector of the Grand Route many smaller roads proceed to the Himalayas. These smaller roads are indicated by Nawshera-Dargai below Malakand pass, Sialkot-Jammu, Amritsar-Pathankot, Ambala-Simla Laksar-Dehradun, Bareilly-Kathgodam, Hajipur-Raxaul, Katihar-Jogbani and Gitaldah-Jayantia railway branch lines. In the same way from the southern sector of the Grand Route many passages proceed towards the Deccan but these are not merely branch routes but assume the character of the Grand Route; they will be described later on.

As we have observed above the routes from the Panjab to Sindh follow the rivers. One route branching from Bhatinda proceeds along the Sutlej. In the same way another route branching from Attock proceeds along the Sindh. In between these two routes there are five routes which like the five rivers of the Panjab meet at a point. The Sindh routes follow both sides of the rivers and are joined by the bridges at Rohri and Kotri. On the north western hills of the Kachchhi-Gandav plain were inhabited by the Sivis in ancient times. In this plain from Sukkur the railway line proceeds to the passes of Baluchistan.

In ancient times the rivers of Sindh and the Panjab were navigable. Darius I in the beginning of his reign had decided to reach the Arabian Sea through the lower Sindh, but before doing so he ordered the exploration of that area. Skylax was appointed the leader of the exploration party and his flotilla reached Kaśyapapura (Kaspapyros) which is identified with Multan. 25

The second invasion of the Iranians started from here. A little below Multan on the left bank of the river Chenab in 519 B.C. the flotilla of Darius reached, and after two and a half years when this flotilla presented itself to Darius in Egypt then it opened a channel between the Nile river and the Red Sea. According to Foucher this voyage was necessary to join the Persian Gulf and the Arabian Sea. As soon as the ports of the Red Sea and the lower Sindh came under the control of Darius the Indian Ocean became secure and Persian ships began sailing safely from the ports of Egypt to the ports of Sindh. When the followers of Alexander reached the lower Sindh then they had to face the stiff opposition of the Brahmana republics. It may be suggested that perhaps the Iranians also had to face a similar opposition. As soon as the armies of Alexander left the Brahmana republics again came to themselves. The Macedonian Nearchus, Admiral of Alexander, admits that because of the stiff opposition of the population he was forced to leave Sindh very soon. In his expeditions to India Mahmud of Ghaznī also followed the same route. After the sack of Somanatha, when Mahmud was returning to Ghaznī he was very much harassed by the Jats living in the valleys of the Panjab. To teach them a

lesson Mahmud returned to India the following year and assembled a flotilla of 1400 boats at Multan. 26 In modern times the navigation in the Panjab rivers has very much diminished. Only a limited number of boats ply on the Indus for transporting goods.

Here we can conveniently compare the northern Sindh-Ganga route with the southern route. The northern route passes through the fertile plain of the Panjab against the southern route which passes through the dry regions. In future when the railway line from Jhang and Dera-Ismail-Khan proceeds to Ghazni and Gomal then its importance will be much enhanced. But from Delhi to Varanasi both the routes pass through very fertile regions and, therefore, their importance is the same. Even then the northern route carries on the trade of the Himalayan region and the southern route takes care of the trade and commerce of the Vindhyan region. Beyond Varanasi the southern route is of greater importance than the northern route because, while the northern route looks in the direction of Assam, the southern route proceeds to Calcutta and thus to the sea. However, with the threat of Chinese Communism and its hegemony over Tibet and their growing influence on Burma this route as well is becoming militarily more important.

On the route between Peshawar and Bengal, besides the rivers there are three important strategic points namely, the Salt Range between Attock and Jhelum, the plain of Kurukshetra and the hills of Rajmahal between Bengal and Bihar. In the plains the rivers specially in rainy season create impediments in navigation and, therefore, the ancient route followed the foothills of the Himalayas in order to facilitate the crossing of the rivers in all seasons. In ancient times these fords were very important for stopping the advance of the enemy. The region between Attock and Jhelum is not of a strategic importance because the Salt Range separates the fertile northern part of the Sindh-Sagar Doab with the arid southern part. Straight to the north the route proceeds to Hazara and following the Jhelum to Kashmir.

The Panjab proper ends on the eastern bank of the Sutlej and only the military cantonments of Ferozepur and Bhatinda defend the road to Delhi. Ferozepur, in the war with Pakistan, was defended by the Indian army with all its might. The plain of Kurukshetra is the watershed of the river systems of Sindh and Ganga. History tells us about the great strategic importance of Kurukshetra. To its north lies the desert of Marwar. In between this narrow plain joins the valleys of the Sutlej and the Yamuna. This is a natural route between the Panjab and the Deccan. If the enemy forces proceeding through the Panjab manage to reach the Sutlej then owing to the geographical conditions they will be forced to come to the plain of Kurukshetra. The war between the Kauravas and Pandavas was fought here. The war between Prithvīrāj and Muhammad Ghorī fought at Tarawadi once again decided the fate of India. In the war between Babur and Ibrahim at Panipat the Mughals laid the foundation of their rule. In the eighteenth century Ahmad Shah Abdall, after inflicting heavy defeat on the Marathas broke their back-bone. After the partition of the country the refugees fleeing the western Panjab assembled in the plain of Kurukshetra to save their honour and life.

The fords in the Gangetic plain have the same importance as the crossing points of the Panjab rivers. Delhi, Agra, Kanauj, Ayodhya, Prayag, Varanasi, Patna and Bhagalpur are situated on the banks of the rivers and provide protection for the crossing points of those rivers. Prayag on the confluence of the Ganga and Yamuna and Patna on the confluence of the Son and Ganga are cities of strategic importance. But it should be noted that the crossing points of the Yamuna and the crossings on the south bank of the Ganga are of greater importance than the crossing points in the interior areas served by those rivers. Agra, Dholpur, Kalpi, Prayag and Chunar fall in this category. The route to Malwa and Rajasthan crosses the Yamuna at Agra and the route between Bundelkhand and Malwa crosses the same river at Kalpi. In ancient times Kausambī was situated a little above Allahabad. Below Kausambī the Ganga and the Yamuna were navigable, the place of Kausambī has been taken up by Prayag.

The natural meeting point of the armies proceeding from Bengal and Uttar Pradesh was in the plain of Buxar situated in Bihar because after this point the Ganga becomes so wide that it can be crossed only by steam boats. The foundation of the city of Pāṭaliputra by Udāyībhadra was laid expressly with the purpose to safeguard the crossing point of the Ganga against the expansion of the Lichchhvis. A little further on from Patna the hills of Bihar proceed along the Ganga to Bengal and, therefore, the route from Bengal to Bihar passes through a narrow passage.

We have drawn a picture of the road system in northern India and tried to point out how the roads are governed by geographical conditions. But the system of the roads pointed above must have taken thousands of years to develop. We are aware that almost in 500 years B.C. the network of routes between northern India and the Deccan had developed. There is every possibility that the Aryan colonisers proceeding from the north-west to other parts of India passed through these roads. We have tried to analyse the sections of the Grand Route from Vählika to Pushkarävatī, Kabul to Peshawar, Peshawar to Pushkarāvatī and Taxila and how far the Mahābharata throws light on the tribes inhabiting those sections. The Buddhist Pāli literature hardly gives any account of the Grand Route from Balkh to Taxila and from Taxila to Mathura.

Fortunately the Rāmāyana and the Vinaya of the Mūlasarāstivādins preserve an account of the route between Taxila and Mathura. The Vinaya informs us that Jīvakakumārabhritya, the great physician and a contemporary of the Buddha, proceeding from Taxila passed Bhadramkara, Udumbara, and Rohītaka to reach Mathura. Przyluski has identified Bhadramkara with the Sialkot region, Udumbara with the region of Pathankot and Rohītaka with modern Rohtak in the Haryana State. The Chinese traveller Tche-Mang also mentions Agrodaka on this route which could be identified with Agroha in the Rohtak district.

It seems that the Udumbaras exercised great influence on this route which may be due to its geographical situation. Because the Udumbaras living in the Pathankot region shared the commerce between Magadha and Kashmir and they

had also a share in the trade with Kangra, because even today all roads to Chamba, Nurpur, and Kangra meet at Pathankot. After the partition of the country the new road between Pathankot and Jammu is the only route for joining India proper with Kashmir. Jammu is now connected with Pathankot by rail-road. In ancient times fine woollen material woven in this region was designated as Otumbara.

Sākala, the modern Sialkot, in ancient time was the capital of the Madras.<sup>20</sup> In the *Milinda Praina* this city is called *putabhedana* which means that the sealed bales of goods were brought to and unloaded here, and after removing the seals the goods were sold to the retailers.

In Pathankot-Rohtak sector, the Mahābhārata places Bahudhānyaka (Ludhiana), Śairīshaka (Sirsa) and Rohītaka. The Mahābhārata also knows of the desert region situated in the south of Rohtak. From Rohtak the route proceeded to Mathura which in ancient times was a great emporium.

As we have indicated above the Rāmāyaṇa<sup>31</sup> mentions the route from western Panjab to Ayodhya. The messengers sent to bring back Bharata from Kekaya to Ayodhya at first reached the Ganga at Hastināpura in the Meerut district and from there they came to Kurukshetra. After visiting Varuntīrtha they crossed the Saraswatī river then proceeding to the north they crossed the Saradaṇḍā river (modern Sirhind river). Going forward they reached the country of Bhulingas, then traversing the foothills of the Siwaliks they crossed the rivers Sutlej and Beas. Proceeding further in their journey they reached the river Ajakūlā (modern Aji) on which the city of Sakala was situated, and on their final stage to Kekaya they reached Giribraja identified with Giryak near Jalalpur.

The Buddhist literature gives a good account of the route from Mathura to Rājagriha in Bihar. From Mathura this route proceeded to Berañia, Soreyya. Sankissa, Kannakujja and finally reached Payagatittha. Here crossing the Ganga it reached Varanasi, on the same route were situated Varana (Baran-Bulundshahar) ; and Alavi (Arwal).32 Beranja has not been properly identified but this place was probably situated in the district of Dhaulpur near Bari, the starting point of a sector of the Grand Route. It is mentioned in the Anguttarnikaya that the Buddha on the roadside near Beranja preached to the crowds. 33 Soreyya is identified with Soron in the Etah district which is still an important place of pilgrimage. This city had commercial relations with Taxila. 11 Sankissa is identified with the village Sankisa in the Farrukhabad district, U.P. According to the Buddhist sources this city was situated at a distance of thirty yojanas from Śravasti. The monk Revata started from Soreyya on his way to Sahajati (Bhita-Allahabad district) passed Sankissa, Kannakujja, Udumbara and Aggalapura. Alavaka was situated at a distance of thirty yojanas from Śrāvasti and at a distance of ten yojanas on the route between Rajagriha to Varanasi. It is mentioned that once upon a time the Buddha starting from Śrāvastı reached Kıtagiri (Kerakat, district Jaunpur, U.P.) from there proceeding to Alavi he reached Rajagriha in the end. 26 Kausambi was the chief encampment of caravans and the routes from here to Kosala and

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Magadha were largely frequented by merchants and travellers.37 From Kausambi to Varanasi by river was thirty yojanas. The route to the Decean from here passed through Mahishmati.33 On the Grand Route between the east and west Varanasi was a great commercial city. Dommercially the city was connected with Gandhara and Taxila.40 It received horses and donkeys from the route proceeding to Sovira.41 Many caravans arrived here from Uttarapatha.42 It had also commercial relations with Chedi (Bundelkhand) and Ujjain through Kausambi.43 From here one route proceeded to Rajagriha44 and the second to Śravasti. The route to Śrāvasti proceeded via Kitagiri. There were two routes to Beranja from Banaras. The route through Soreyya was circuitous, but the second route crossing the Ganga at Prayag reached Banaras straight. From Banaras the Grand Route also reached Ukkachela (Sonpur, Bihar) and from there it proceeded to Vaisalt (Basarh, district Muzaffarpur, Bihar), where it joined the route from Śravasti to Rajagriha.45 There was also a direct route between Banaras and Uruvela (district Gaya). However, much of the commerce of Banaras was carried by boats plying in the Ganga. From Banaras boats sailed to Prayag and there sailing in the Yamuna they reached Indraprastha.46

A second route from Uttarapatha reached Śravasti the capital of Kosala. This route as we have seen above followed the same course as the railway line from Saharanpur-Lucknow-Banaras. From Lucknow this route proceeds to Gonda. On this route were situated the cities of Kurujangala, Hastinapura and Śravasti.

The route between Śrāvastī and Rajagriha passed through Vaiśālī. The following stages between Sravastı and Rajagriha are mentioned in the Paryanavagga47-Setavya, Kapilavastu, Kusinara, Pava, and Bhoganagara. In these encampments Setavya is said to be the capital of Keyaiaddha. Saheth Maheth is now identified with Śrāvasti.48 On the Tapti river a little further from the Nepalganj station, at Balapur in Nepal proper V. Smith discovered the remains of an ancient city which he regarded as the remains of Śravasti49 but the location of Śravasti at Saheth Maheth has now been finally accepted. Therefore, it is possible that the remains of the city near Balapur may be indicative of the situation of Setavya. Pavapura is identified with the village of Papaur situated in the Padrauna Tehsil of the Gorakhpur district. At Vaisali the northern route to Śravasti and the southern route from Banaras met. The Grand Route proceeded to Champa (Bhagalpur) but the second route turned towards Rajagriha. From Śravastı one route proceeded towards Kausambi through Saketa. According to the Visuddhimagga (p. 290) Saketa was situated at the distance of seven yojanas from Śravastī which could be covered in a day by horse-relays. As robbers lurked on this route the state had made arrangements for the protection of the travellers.50

In ancient times Śrāvasti was a great commercial city, and the chief banker of this city Anāthapindika was a great devotee of the Buddha. In its suburbs lived Nishādas who probably earned their living by plying boats. From the northern gate of the city proceeded to the eastern Bhaddiyā (near Monghyr); this road outside the city crossed the river Achirāvatī by a boat bridge. Outside the southern

gate of Śrāvastī was open plain in which the army encamped. There were octroi houses situated on the four gates of the city.

In the Pāli literature distances from Śrāvastī to different cities are given. This supports the commercial importance of the city. Taxila lay at a distance of 192 yojanas from Śrāvastī; Sankissa at thirty yojanas; Saketa (Ayodhya) at six yojanas; Rājagriha at 60 yojanas; Machchhikāsanda (probably Machishahar in Jaunpur district, U.P.) at 30 yojanas; Śūppāraka (Sopara) at 120 yojanas; Kuraraghara at 20 yojanas and the Chandrabhāgā (Chenab) at 120 yojanas. But the distance from Śrāvastī to these places cannot be determined with exactitude as the measurement of the yojanas in ancient India cannot be properly determined. If we take yojanas equivalent to eight english miles then the distance of the cities from Śrāvastī is not even approximate.

The Grand Route from Śrāvastī striking to the east reached Bhaddiyā (Monghyr) and from there proceeded to the great commercial city of Champā. From there it proceeded to Kajangala (Kānkjol, Rajmahal, Bihar) from there it entered Bengal and proceeded to the port of Tāmralipti (Tamluk).

The branch of the Grand Route proceeding to the south of Vaisalī had many stages where Buddha proceeding from Rājagriha to Kušīnārā in his travels to the east stayed. The Buddha starting from Rājagriha proceeded to Ambalitthaka then reaching Nālandā he crossed the Ganga at Pāṭaligrāma then visiting Koṭigrāma and Nādikā he reached Vaiśālī from where he took the road to Śrāvastī and passing Mandagāma, Hatthigāma, Ambagāma, Jambugāma and Bhoganagara reached the northern Pāvā. After visiting Pāvā he finally reached the Sāla grove of the Mallas.

By comparing the northern and southern routes of the Gangetic plain we can reconstruct their courses. The Grand Route starting from Taxila came to Sakala and Pathankot and then reached Rohtak. It divided itself in the plain of Panipat. The southern route passing through Thuna (Thanesar), Indraprastha, Mathura, Soron, Kampila, Sankissa and Kannakujja reached Arwal. The route following the right bank of the Ganga crossed the river at Prayag and thence reached Banaras. Near Prayag one route starting from Kausambi proceeded to Śravasti, but the main route striking to north-east reached Ukkachela (Sonpur) and from there it proceeded to Vaisall where it met the northern route. This northern route passing through Ambala reached Hastinapura. After that crossing the Ramganga it reached Saketa and then proceeding northwards it reached Śravastī and from thence proceeded to Kapilavastu. From there striking south-east it passed Pava and Kusīnārā and reaching Vaisali it joined the southern route. From there taking south-eastern direction it passed Champa and Kajangala and finally reached Tamralipti. The route from the south of Vaisali proceeding to Rajagriha passed Pataligrama, Uruvella and Gorathagiri (Barabar hills) reached Rajagriha. The Mahabharata mentions this route from Kurukshetra to Rajagriha.53 Krishna and Bhima travelled to Rajagriha to meet Jarasandha on this route. According to the Mahabharata this

route starting from Kurukshetra passed through Kurujangala and then crossing the Sarayū river reached Pūrvakosala and then proceeded towards Mithila. Then crossing the confluence of the Ganga and Sone it reached Gorathagiri from where the city of Rajagriha was perfectly visible.

The Chinese pilgrims also throw important light on the network of the routes in northern India. Fa-Hien (circa. 400 A.D.) and Sung-Yun (about 521 A.D.) entered India through Uddiyana but Hsuan Tsang took the route directly from Balkh to Taxila but while on his way back he returned via Kandahar. The country between Turfan and Kapisi was at that time under the authority of the Turks. Hsuan Tsang passing Balkh, Kapisi, Nagarahara, Purushapura, Pushkaravati and Udabhanda reached Taxila.

After fourteen years when Hsuan Tsang returned to China from India then he stayed for some time at Udabhanda. From here he proceeded to Lampaka (Laghman) and from there passing though the valley of the Khurram, he reached in the south of Varnu (Bannu). In that period Varnu or Fa-la-na included not only Waziristan but also the Gomal and its two tributaries, the Zohb (Yavyavatī) and Kandar and their valleys. After travelling for 2000 miles from here he reached Toba-kaker and the valleys of Ghazni, and Tarnak, where he crossed the Indian Frontier and then through Kalat-e-Ghilzai he reached Tsao-kiu-tse or Jaguda, the Jaguri of later times. The country lying to the north of Jaguri was known as Fo-li-shi-tang-na or Vrijistan whose name has yet survived in Ujiristan or Garjistan. 4 It is not clear from the travel account of Hsuan Tsang as to what particular route he took to the west and where this route met with the route to Kapist. Foucher is of the opinion that his route started from the source of the Arghahdab then passed through Dasht-e-Nabar and the pass of Bokan, then following the Logar or its tributary it reached the upper heights of the Khawak river. 45 To reach Kapisi from here he took north-easterly direction and his route was probably Herat-Kabul sector which reached Jalrej in Hazarjat, or he took Kandahar-Ghazni-Kabul route in the plains. From Kabul he reached outside Paghman and then striking to the north he crossed many hills, rivers and towns on the boundary of Kapisi. On the strength of modern geographical knowledge about the area it could be imagined that for reaching the south of the Hindukush he crossed the eastern foot of Paghman. On this route he had to cross a very difficult pass which has been identified by Foucher as Khawak. Whatever may be the case, the pilgrim reached the valley of Andarab by this route and then taking northerly direction reached Khosht and from there he proceeded to Badakshan and Wakhan.

During the course of his travels in India Hsuan Tsang reaching Gandhara paid visits to many Buddhist monasteries and places of pilgrimage and for that he had to traverse many routes. From Gandhara he reached Mengki or Mangalore the capital of Uddiyana (Swat), 56 After wandering in this region striking to northeast he reached Darel. 57 Here he had to pass a very difficult mountainous route and crossing the Indus by swinging bridges he reached Bolor. 58 Then he again returned to Udabhanda and from there proceeded to Taxila. From Taxila taking the

route to Urasā (Hazra district) he reached Kashmir. From there taking a difficult route he reached Poonch. From there passing Rajori he reached the south-western part of Kashmir. At a much later date for reaching Kashmir the Mughals took the same route. Going south-east of Rajori Hsüan Tsang reached the country of the Takkas and after two days journey crossing the Beas he reached Sākala. From there he reached Chinabhukti or Chinapati where Kaushika had kept the Chinese hostages and which is now identified with Patti lying at a distance of twenty-seven miles north of Kasur. From here passing Tamasāvana he reached Jullundur situated in the north-west. From here he took a journey to Kulu and reached Pariyatra which has not been identified yet. From here he returned to Kurukshetra and then proceeded to Mathura. From the above description of the route between Taxila and Mathura, it becomes evident that even in the seventh century the Grand Route took the same direction as in the Buddhist period though due to the passage of time many places had changed their names.

Another part of Hsuan Tsang's travel started from Sthāņviśvara (Thanesar). From here passing Su-lu-kien in north-west he reached Matipura situated in Rohil-khand. After this he reached Govishāņa (Kashipur, Kumaon) and after that he visited Ahichchhatra situated in south-east. Proceeding to the south of Ahichchhatra he paid a visit to Vilashaņa (Atranjikhera, district Etah, U.P.) and then Sankissa or Sankāsya. Leaving the city and paying a visit to Kānyakubja he reached Ayodhyā and from there passing Ayamakha and Prayag reached Viśoka.

As the Chinese pilgrim frequently changed his routes, discrepancies have crept in his itineraries. From Thanesar to Ahichchhatra he took the northern route but after that from Kanauj he took the southern route to reach Prayag. But from Viśoka which perhaps may be identified with Lucknow district he again took the northern route to reach Śrāvasti. 67 From there he proceeded to Kapilavastu which was completely deserted in the seventh century. 66 From Kapilavastu he came to Lumbini and from there to Rāmagrāma and then to Kuśinārā. 69

From the above account we find that our pilgrim travelled to Prayag by the southern route and from here he would have reached Varanasi by crossing the Ganga. But from his journey from Kuśinārā to Banaras the pilgrim had to proceed towards Bihar. Following the Ganga he reached the Chan-chu district which could be identified with the Kumāravishaya<sup>70</sup> of the Mahabhārata now represented by Ballia and Ghazipur districts of U.P. Going onwards from here he reached Vaiśālī.<sup>71</sup> From here he took a short route to Nepal and then returning to Vaiśālī came to Pāṭaliputra.<sup>72</sup> From Pāṭaliputra he took a journey to Gayā and Rājagriha.

Perhaps the pilgrim again returned from Rajagriha to Vaisali and then travelling on the Grand Route went to Champa<sup>73</sup> and Kajangala and from there he proceeded to Pundravardhana in north Bengal and then finally reached down to Tamralipti.<sup>74</sup>

From the above account it is evident that even in the seventh century A.D.

there were the same routes which existed in the fifth century B.C. In the eleventh century A.D. the trade routes remained almost the same though in this period many cities lying on the routes had disappeared, and new cities had occupied their places. In the network of trade routes in the eleventh century Alberuni accounts for fifteen routes which started from Kanauj, Mathura, Anhilwad, Dhar, Bari and Bayana.75 The Kanauj route passing Prayag in a northern direction finally reached Tamralipti from where passing along the coastal region it reached the far off Kanchi in the south. The following stages appeared on the sector of the route from Kanauj to Prayag, e.g., Jajamau, Ampuri, Kora and Brahmasila. There is no doubt that this sector indicates a part of the southern route from Bari (a tehsil of Dholpur). In Bari to Gangasagar route we find traces of the northern route. From Bari the route reached Banaras through Ayodhya and then proceeding through north-east passing through Sarvar (Gorakhpur, U.P.), Patna, Monghyr, Champa and Dugampur it reached Gangasagar, where the Ganga meets the Bay of Bengal. A route from Kanauj (No. 4) passed Asi (Aligarh, U.P.), Jandra? and Rajauri and finally reached Bayana (Bharatpur, Rajasthan). The No. 14 route proceeded from Kanauj to Panipat, Attock, Kabul and Ghazni. The route No. 15 extended from Baramula (Kashmir) to Adisthan. The route No. 5 proceeded from Kanauj to Assam, Nepal and the Tibetan frontiers. It is evident that this journey was performed by the northern route of the Gangetic plain.

During the Mughal period we get ample information about routes from the accounts of W. Finch, Tavernier, Tiffenthaller and the Chahār Gulshan. The names of the stages of these routes differ in all accounts which may be due to the fact that these travellers stayed at different stages. The Chahār Gulshan mentions twenty-four such routes but in reality they are only the parts of the Grand Route.

In the Mughal period the Grand Route starting from Kabul passed Begram, Jagdalak, Gandamak, Jelalabad, and Alt-Masjid and finally reached Peshawar. From there crossing the Indus at Attock it passed Hasan Abdal and then reached Rawalpindi. From here it proceeded to Rohtas and Gujarat and finally reached Lahore. Another route from Kabul passing Ghorband and Talikan via Charikar reached Badakshan.

Jahangir after suppressing the rebellion of his Khusrau travelled from Kabul to Lahore on this route. The route from Kabul to Lahore crossed the Ravi on the Shahdaula bridge and then reached Khakkar Cheema (ten and a half miles in the north of Gujranwala, Pakistan), then passing Wazirabad and crossing the Chenab river Gujarat was reached. After this town the Jhelum and then Sindh was crossed at Attock. In the end Kabul was reached from Peshawar. The route between Lahore and Kashmir followed the Grand Route upto Gujarat. From here the route to Kashmir branched out and passing Bhimbar, Naushera, Rajori, Thana, Shadimarg and Hirpur it reached Srinagar. Another route to Baramula passed via Rajori and Poonch. Even to this day this route is in use and many battles were fought in this sector with Pakistan due to the Kashmir question. According to Tiffenthaller owing to the anarchical

conditions at the end of the eighteenth century the merchants proceeding to Kashmir passed Najibgarh, Ajmagarh, Dharampur, Saharanpur, Tajpur, Nahan, Bilaspur, Haripur, Makrota, Bisuli, Bhadarawan and Kashtwar. This was no doubt a circuitous but a much safer route because the route passing through the hills of Simla, the merchants managed to save themselves from the free looters lurking on it.

The route between Lahore and Multan passed Aurangabad, Naushahara, Chowkifattu, Harappa and Tulumb. 79

The route from Lahore to Delhi passed at first Hoshiarpur, Naurangabad and Fatehabad reaching Sultanpur. In the west of the city there were crossings on the Kalna river and in the north on the Sutlej. After that the route reached Jehangirpur where the old bed of the Sutlej lay. Then via Phillaur, Ludhiana was reached. From here the route passed Sirhind, Ambala, Thanesar, Taravadi, Karnal, Panipat and Sonipat finally reaching Delhi. 86 The route from Delhi-Agra passed Barapul, Badarpur, Vallabhgarh, Palwal, Mathura, Naurangabad, Farahsarai and Sikandara finally reaching its destination Agra. Delhi-Muradabad-Banaras-Patna route passed Ghaziuddinanagar, Dasana, Hapur, Bagsar, Garhmukteshwar and Amroha and then reached Muradabad. The stages between Muradabad to Banaras are not mentioned. From Banaras the route proceeded to Ghazipur and then Buxar and then crossing the Ganga seven miles south to the town the road passing Ranisagar finally reached Patna.81 The Dacca route proceeded through Firozabad, Etawah and Naurangabad and then reached Allahabad. 82 After paying the octroi duty at Allahabad the merchants obtained their passports from the Subedar and then crossing the Ganga and passing Jagdishsarai they reached Banaras. While crossing the Ganga the effects of the travellers were examined and the octroi duty realised. From Banaras passing Sayyadraja and Mohansarai the route proceeded to Patna. The Karamnasha river was crossed at Khurrmabad and the Sone at Sasaram. After that passing Dawudnagar and Arwal, Patna was reached. From Patna to Dacca Tavernier took a boat and passing Barh, Keul, Bhagalpur and Rajmahal he reached Hajapur. From this place Dacca lay at a distance of almost 90 miles. Returning from Dacca, Tavernier reached by boat Kasimbazar and thence to Hooghly.

The network of roads in northern India in the later Mughal period shows that except for some branch routes there was very little change in their orientation in this period and the mediaeval times. The route from Kabul to Peshawar was straight. The route to Kandahar from Kabul passed Ghazni. The route from Lahore to Kashmir was via Gujarat. The route from Peshawar to Bengal took the same direction between Lahore and Delhi as in ancient times. The northern route of the Gangetic plain proceeding from Delhi to Muradabad reached Patna. There was a route between Delhi and Multan as well. The network of the routes in mediaeval India and the Mughal period passed the cities built during the Sultanate period bearing in mind the course of the ancient routes as well; this was perhaps the right course to adopt.

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# 3. THE ROUTES IN SOUTHERN AND WESTERN INDIA

In reality the Satpura and Vindhya hills separate northern India from the Deccan and further south. The Vindhya hills are not only notable for their natural beauty but also for the routes which united northern India with the parts of western India and the great cities of south India. In these routes there are four or five worth knowing which passed from the east to the west.

Because of the situation of the desert of Marwar and the Rann of Kutch, the routes between Gujarat and Sindh are very difficult. For this reason in ancient time the route between the Panjab and Gujarat passed through Malwa, but at times conquerors like Mahmud, in order to shorten their way to Saurashtra, passed through the deserts of Sindh and Marwar. But usually the most convenient route between Sindh and Gujarat was only the sea.

Like the Aravali hills the route to Delhi, Ajmer and Ahmedabad cut through the central Rajasthan and then following the western foot of the Aravali hills reached Ajmer. This route is the natural route between the Deccan and Rajasthan.

The Mathura-Agra route following the upper Chambal valley proceeded to Ujjain and thence to the Narmada valley. This was also the direction of the ancient route the the Deccan. Between Khandwa and Ujjain where the railway line crosses the Narmada, was situated the city of Mahishmatt now known as Mahesar. Perhaps this was the earliest route through which the Aryans proceeded to the Deccan. Dr. Sankalia has excavated at Navadatoli near Mahesar and discovered some pottery pieces which connect the site with Iran. However, it has not yet been affirmed whether the excavation throws any light on the Aryan question. Mahishmatt was situated at that point of the Narmada where Mansingh Gujari Ghat of the Vindhyas and the Saindhava Ghat of the Satpuras which are the natural routes for proceeding to the Deccan meet. After crossing the Satpura hills the route enters Barhanpur on the Tapti river. From there proceeding to Khandesh, one route crossing the western ghats proceeds to Surat and another route going up the Poona valley proceeds to Berar and the Godavari valley.

Ujjayinī was the capital of the ancient Avantī. Eastern Malwa was known as Akara and its capital was Vidišā (Bhilsa). One branch of the ancient highway passing through the ancient ports of Bharukachchha and Suppāraka reached Mathura via Ujjain. Starting from Vidišā another branch of the route crossed the Betwa valley and proceeded to Kaušāmbī. The traces of this route we can find in the rail road from Bhilsa to Jhansi and Kalpi. This very route was followed by the disciples of the Brāhman ascetic living on the bank of the Godavari. It is mentioned in Buddhist literature that Bāvari in order to interpret a curse of the Brāhmaṇas despatched his disciples to the Buddha.<sup>83</sup> The disciples started their journey from Āļaka. From there they proceeded to Patiṭthāṇa (Paithan) near Aurangabad (Mahatashtra State), Mahissati (Mahesar, M.P.), Ujjayinī (Ujjain, M.P.), Gonadhha, Bedasā (M.P.), Vanasahva and finally reached Kaušāmbī. If we look to the

south of Mathura-Agra route between Kanpur and Allahabad then we will find that the route following the Betwa, Tons and Ken is a pointer to another route. Between the Ken and Tons, the Panna sector of the Vindhya range narrows down. By crossing it the watershed of the Sone and the Narmada-Jabalpur can be reached easily. Near Jabalpur was situated Tevara (Tripuri), the capital of the ancient Chedis. The road between Jabalpur and Prayag is indicative of the Grand Route of Bundelkhand. At some distance in the north from Jabalpur another route from Katni proceeds towards Chhatisgarh. From Jabalpur another route taking the direction of the Ven Ganga proceeds towards the Godavari valley. The main route however from Jabalpur following the Narmada valley, reaches Vidisä and then proceeds to Itarsi. Another route between Ujjain and Māhishmatī reached Khandwa.

The network of the routes in the Vindhya hills ends in the Deccan. The route from Delhi to Gujarat passes through Malwa and Rajasthan and after Baroda following the coastline proceeds onwards. But its importance is very much diminished because of the barrier of the Sahyadri between the plain and the sea-coast. After Bombay this route divides itself into many smaller routes.

The route to Malwa crosses the Sahyadri at Nanaghat near Nasik and then proceeds to Sopara. The Bundelkhand route from Prayag to Jabalpur proceeding to Nagpur follows the Godavari valley and then reaches Andhra Pradesh, because of the dense forests of Bastar and the Maikal hills this route is not very popular.

The routes in south India follow the rivers. The first route follows the railway line between Manmad and Masulipatnam, the second proceeds from Poona to Kanchipuram and the third from Goa to Tanjavur-Nagapattinam. The fourth from Calicut-Kozhikod, to Rameshwaram and the fifth is only a route of local importance. But the fourth route crossing the Pal Ghat serves the great route between Kerala and Cholamandala. The first three routes also had their own importance.

The route proceeding to the south-east of Manmad crossing the ranges of Ajintha (Ajanta) and Balaghat enters the Godavari valley. Passing Daulatabad, Aurangabad and Jalna it touches the Godavari at Nanded and then following the river for some distance crosses it from its left bank. The rail-road from there turns to the south for touching Hyderabad but the ancient route from Warangal lying in the north of Hyderabad turns on its straight course and passing Vijayawada touches the Bay of Bengal.

It is evident from the Suttanipāta<sup>84</sup> that almost in the fifth century B.C. the route was very popular. As we have noted above the disciples of Bavari reaching Assaka situated in the middle of the Godavari valley proceeded to Pratisthāna and from there proceeding to Māhishmatī and Ujjayinī reached Vidišā.

The route from Poona following the Ahmednagar range of the Sahyadri turns to the south and proceeds to the plateau of Golconda. Following the Bhima river this route proceeds to the confluence of the Bhima and Krishna. After this it pro-

ceeds to the eastern point of the doab of Krishna and Tungabhadra, and then comes out to the west of Nalmalai. After that following the Vadpennar it crosses the eastern ghats and reaches the sea.

The third route starting from the southernmost point of Maharashtra passing through the Krishna and the Tungabhadra either crosses the Tungabhadra at Vijayanagar and joins the second route or proceeding to the south-west crosses the Tungabhadra at Harihar, enters Karnatak and proceeds along the Kaveri.

History is witness to the fact that these routes were used for constant warfare, commerce and cultural exchanges, but unfortunately not much information is available about the routes from historical chronicles and epigraphs. Alberuni gives some account of the routes in the western and southern India. One route starting from Bayana crossed the desert of Marwar and passing Bhati reached Laharibundar or Karachi. The route followed the direction of the Kanauj-Bayana. The Mathura-Malwa route indicates the Mathura-Dhar route. There was another route between Ujjain-Bayana and Dhar. The first route indicates the rail-road from Mathura to Bhopal and then to Ujjain and Indore to Dhar. The second route to Dhar is indicated by the western India rail-road which proceeds from Bharatpur to Nagada and from there taking the meter gauge proceeds to Dhar via Ujjain and Indore. The rail-road from Dhar to the Godavari and from Dhar to Thana are indicated by the rail route from Manmad to Nasik and then Thana.

In the Mughal period there was sufficient traffic between north India to the Deccan, Gujarat and south India. The Delhi-Ajmer route passed Sarai-Allahwardi, Pataudi, Rewari, Kot, Chuksar and Sarsara reaching Ajmer.\* According to Elliot (Vol. 5) there were three routes from Ahmedabad to Ajmer namely: (i) the road passing through Medata, Sirohi, Pattan and Deesa reached Ahmedabad, (ii) the route from Ajmer to Ahmedabad\* passed Medata, Pali, Bhagwanpur, Jalore and Pattanwal, (iii) the route from Ajmer to Ahmedabad passed through Jalore and Haibatpur.

In the seventeenth century the Surat-Agra road passing through Sironj and Burhanpur was very busy because the commerce between north India and the port of Surat passed through this road. Tavernier and Peter Mundy speak of many stages on this route. Starting from Surat this route reached Navapur and then via Nandurbar it reached Burhanpur. In this century Burhanpur was a great commercial centre which exported textiles to Iran, Turkey, Russia, Poland, Arabia and Egypt. From Burhanpur the route passing Icchawar and Sihor reached Sironj which in this century was famous for its textile printing. From Sironj this route passing Sipri, Gwalior and Dholpur reached Agra.

There was another route from Surat to Agra via Ahmedabad.<sup>39</sup> This route from Surat passing Baroda and Nadiad reached Ahmedabad. The famous stages between Ahmedabad and Agra were Mehsana, Siddhapur, Palanpur, Bhinnamala, Jalore, Medata, Hindaun, Bayana and Fatehpur Sikri.

Tavernier also gives a good account of the routes in the Deccan and south India though unfortunately most of the stages falling on those routes cannot be identified. The route between Surat and Golconda passed through Bardoli, Pimpalner, Devagaon, Daulatabad, Ashti, and Nanded. The route between Surat and Goa passed through Daman, Bassein, Chaul, Dabhol, Rajapur and Vengurla.90

The distance between Golconda and Masulipattinam was according to Tavernier hundred miles but because it passed through the diamond mines, it had to cover 112 miles. In the seventeenth century, it was a famous port on the Bay of Bengal. From this port ships sailed to Pegu, Siam, Arakan, Bengal, Cochin-China, Mecca, Hurmuz, Madagascar, Sumatra and Manila.<sup>91</sup>

In the seventeenth century the condition of the roads in the Deccan was deplorable. Even small carts could ply on them with great difficulty and at times the carts had to be dismantled and then carried on the roads to be reassembled again. The condition on the road between Golconda and Cape Comorin was also very bad. Bullock carts could not ply on it and, therefore, beasts of burden were used to carry the goods. Travellers also made ample use of the palanquins.

We have surveyed the network of Indian routes from historical and geographical viewpoints. We will see in the following chapters that these roads not only helped to increase the internal trade and cultural relations but we could maintain our contacts with foreign countries through these routes in all periods of Indian history. The development of the trade-routes of a country serves as the yardstick for measuring the evolution of culture. As soon as minor routes started branching out from the grand routes the parent Indian culture began penetrating the farthest corners of the country, and after it had covered the whole country then following the land and sea routes it spread to Indonesia, Burma, Indo-China and other parts of the world. In the following chapters we will have occasions to see how in different ages the conquerors, merchants, artists, and monks traversing these grand routes helped in the expansion of the trade and culture of this land.

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# CHAPTER II

# TRAVELLERS IN PROTOHISTORIC AND VEDIC PERIODS

FROM THE very beginning travelling either for commerce or for any other purpose formed an integral part of civilization. Even in the days when civilization was in its early stages men travelled, though the purpose of their travelling might have been very different than it is today. Difficult mountain ranges, dense forests and burning deserts could not stop them from travelling. The purpose behind travelling of its primitive people was mostly in search of such places where food such as edible roots, fruits and animals and the pastures for grazing their cattle and cave shelters for their habitation were available. If the soil lost its fertility or if owing to the change of climate their way of life was affected then they went in search of new land across the forests and hills.

Man in his nomadic state always wandered in search of pasturages for his herds of cattle. There are many instances in the history of mankind which tell us that owing to the change in climate and difficulties in eking his livelihood, man did not feel hesitant in undertaking long journeys.

We know that in historical period the Sakas unmindful of the burning deserts and difficult mountains entered Iran and India. The Aryans, by whose culture we swear today, for this very reason, migrated from their homeland to Europe, Iran and India. In the course of their wanderings these nomadic peoples took to routes which were afterwards used by the conquerors and merchants.

The agricultural stage in the history of man extricated him from the primitive hunting stage and settled him on the land which yielded grains to support his livelihood. In this age when man was provided with a definite means of livelihood a sense of permanency entered his life and because of this he diverted his attention to the problems of social organisation. But with agriculture his life became more complicated and gradually he began realising his responsibility towards society and thus he became its integral part. At this stage he began realising the importance of commerce though it does not mean that he in his nomadic stage did not practise commerce, because archaeology is a witness to the fact that man even in his primitive stages practised commerce and goods were transported from one place to another by land and sea routes though in limited quantities.

It may, therefore, be asserted that in agriculture stage the primitive farmers received a fresh stimulus because when man was satisfied with the production of

his food then he diverted his attention to the manufacture of cloths and ornaments, some weapons and discovering the use of metals for making some implements. In the beginning this commerce was limited to known areas, but with man's inherent courage and progressive outlook he began discovering new routes and countries; with this increase in geographical knowledge civilization marched forward. But in this age, travel was not an easy matter. The routes passed through dense forests infested by robbers and wild beasts, and, therefore, it was quite unsafe to travel alone. In order to overcome these difficulties man decided to travel in groups and in this way the institution of caravan came into existence in some distant past. In historical period the caravan became the only means for carrying on trade with distant lands. It was the duty of the leader of caravan to ensure the protection of the caravan and lead it safely to its destination. He was not only an intelligent merchant but also an expert guide and organiser. He, however, expected implicit obedience from his comrades. Today is the age of rail roads and mechanised transportation, large ocean going ships and aeroplanes, but even in this age where these blessings of civilization have not reached there the leader of caravan leads his caravan as he did a thousand years ago. Only sometime back the caravans from Shikarpur (Satha is the Sindhi word for Sartha) for reaching Chinese Turkestan crossed the Karakoram range and till recently the commerce of Tibet was in the hands of Nepalese and Bhotia caravans.

For the history of the trade routes and commerce of the Indian sub-continent the importance of the protohistoric cultures of western India and West Pakistan could not be exaggerated. It is not yet known how the foundation of the Indus valley culture was laid. However, in the valleys of Quetta traces of nomadic agricultural communities have been found. The culture of Kot-Diji also predates the Indus valley culture. The eastern part of Sindh, because of the bund of Sukkur has become very fertile, but the major portion of western Sindh, Baluchistan and Makran are stony and sandy. The coastal region of Makran is full of deserts and the range of the hills rising straight up separate the river valleys from one another and therefore the routes proceeding from east to west have to cross the passes of Mula and Gaj to reach the plains of Sindh. Near Kalat the hill range narrows down and the ancient route passing through the Bolan Pass reaches Quetta. This very route connects Pakistan with Kandhar. Leaving aside the irrigated land, the whole Sindh is a desert, and the river Indus is always changing the course and its mouth. Almost the same geographical conditions are applicable to the valley of the ancient Sarasvati in which so far as water flowed its valley was very green and is now assuming the same state with increased means of irrigation. Parts of Kutch, Saurashtra and Gujarat in which the Indus culture also flourished, the same geographical conditions prevailed. Though nature was against this tract of land, in this very region traces have been found of the agricultural communities of India and Pakistan, which could be dated to almost 3000 B.C. It is evident from these remains that perhaps in very ancient times the climate of this region was milder than it is today. This is amply supported by the remains from Harappa. It is not possible to surmise about the climate of southern Baluchistan in ancient times but as the remains of human habitation have been found at many places in this area, it is evident that

there must have been more rainfall in that period than today. This rainfall enabled the people to collect water in the gabarbands for irrigation purpose.

The Quetta culture is perhaps the oldest culture in this region. The yellow ceramic even was closely related to the pottery found in the region of Faras in Iran. This similarity may indicate the contact of India with Iran.

From the articles of the Amrial culture we could connect this culture with Harappa and other lands.

The lapis lazuli came from Afghanistan or Iran and the beads and the weights with holes, connect this culture with the Indus valley culture.2

The connection of Kulli culture with the Indus valley culture is established on the basis of the miniature bullock carts, receptacles carved of soft stone meant for keeping collyrium and such other objects. Piggotta is of the opinion that perhaps the merchants from Harappa came to south Baluchistan but their stay there was not more important than the temporary sojourn of caravans. There is evidence to support that there was commercial relation between Sindh and Baluchistan and through the hill ranges of Baluchistan came some commercial goods, and men to the plain of Sindh. The Kulli culture had also contact with Iran and Iraq. Now the question arises whether Sumer was related to south Baluchistan by the land route or sea route. Did the Sumerian ships anchoring on the Dasht River bring lapis lazuli and gold with them for exchanging aromatic ingredients filled in stoneware or whether Indian ships touched the ports of Sumer. According to Piggott, there is some evidence that in Sumer the Baluchis must have lived in a separate society following their own customs and worshipping their own gods.

To support contact with Sumer and the Indus Valley culture one pot was discovered from Sumer on which is represented the bull worship which is not a Sumerian feature. On some of the seals from Susa as well the Indian bull is depicted. This commercial relation with Sumer was confined only to south Baluchistan and not to the Indus valley culture which came five hundred years later. There is also evidence that the commercial relation was by the sea route and not the land route, because contact with the Kulli culture does not go to the west Bampur in Iranian Makran or beyond the province of Faras.<sup>4</sup>

In northern Baluchistan, especially in the valley of the Zhob river, there existed almost a sea of cultures, which could be related with the red-ware culture of Iran. On the strength of such objects as sealings, etched beads, etc. the cultures of northern Baluchistan could establish contact with the Indus valley culture. It is evident from the excavations at Rana Ghundai that about 1500 B.C., some foreign people attacked and burnt the habitations in northern Baluchistan.

The archaeological remains from Mohenjodaro and Harappa give us a picture of the protohistoric culture of the Indus valley. Proceeding from Baluchis-

tan to Sindh and the Panjab we find that small commercial towns were replaced by fully developed urban civilization in which instead of the multi-cultural civilization of Baluchistan changing from time to time we find unity of form all the time. This culture extended from Makran to Saurashtra and in the north to the foothills of the Himalayas. Most of the cities of this culture were situated in Sindh, and its northern extension to Mohenjodaro in Sindh. However recent excavations have yielded evidences of the further extension of this culture at Rupar in eastern Panjab and Kali Bangan in Rajasthan. From the extensiveness of these cities it could be suggested that people had so much surplus food from their agricultural income that they came to the cities for its disposal. From the representations of the animals on the Indus valley seals and the animal bone remains, it is evident that in that period the climate of Sindh was quite moist and in consequence there existed dense forests which yielded sufficient wood for burning bricks.

Within the last ten years the remains of the Indus Valley culture have been unearthed in east Panjab, Uttar Pradesh, north Rajasthan, Kutch, Saurashtra and central and south Gujarat which throw additional light on certain aspects of the Indus Valley culture. If we plot the extension of Indus Valley culture on a map then its area will cover almost 40,000 sq. miles. No ancient protohistoric civilization covered such a vast area. The distinguishing features of this culture are the scientific layout of the city planning, the use of burnt bricks for building houses, sanitary measures adopted for cleaning the cities, painted earthenware, seals, ornaments, measurements and weights. The method of burial was almost the same throughout this culture. It seems that some central power took measures to maintain the unity of this culture throughout. However it has not been determined as yet whether the Indus Valley culture extended to the west and towards the south and whether its extension was a natural process or whether the people of the Indus Valley culture uprooted by some unknown consequences were dispersed all over.

From the excavations at Lothal and Kali Bangan some additional light is thrown on this culture. Lothal is situated at almost 60 miles south of Ahmedabad. From the topographical viewpoint it seems that Lothal was either situated on the sea shore or very near it. The mound covering almost 2 miles, when excavated by Mr. Rao turned out to be a small replica of Mohenjodaro. The city was divided into six blocks and four roads crossed it from north to south and east to west. There were shops on these roads and sanitary managements were the same as at Mohenjodaro.

The dock excavated at Lothal is perhaps the oldest man-made dock for receiving ships and loading the goods though the view is disputed by some scholars. It is evident from its constructional features that its builders had some knowledge of hydrography and marine engineering. Before building the dock they must have studied the effects of the tides on the bricks, and they must have made arrangements to safeguard it against the tidal waves. The measurement of the dock from

north to south is 219 metres and from east to west 37 metres. The height of the brick walls all around is 4.5 metres. The ships coming from the Gulf of Cambay at high tide passed through a channel 3 metres wide and 2.5 kilometres long, and then entered the dock. In order to safeguard it against the tide there are buffer walls on both sides on the mouth of the channel. From the southern bund another channel making right angle flowed at both ends of the channel till it meets the bund. The depths indicate the existence of the wooden gates used for controlling the flow of the water. The channel could be closed for repair. To safeguard the walls against the shocks of the water outside the walls was constructed a platform 12 to 13 metres made of unbaked bricks. The platform towards the west measuring 240 metres long and 23 metres wide was used for loading and unloading the goods. To the north of this platform were situated the houses of the workers.<sup>6</sup>

As we have seen above Harappa and Mohenjodaro were great commercial cities. To support the commerce of these cities there existed a large number of smaller cities and markets. Fourteen such markets supported Harappa and seventeen Mohenjodaro. Harappa and Mohenjodaro had also commercial relations with the markets of northern and southern Baluchistan The river connected the cities from north to south and small tracks proceeded to Baluchistan.

We have seen above that about 2800 B.C. there existed commercial relations between south Baluchistan and Sumer but the connection of south Baluchistan with Sindh was not by sea but by land routes. This might have been due to the shifting mouths of the Indus which was a great obstacle in the construction of a port. It is for this reason that the merchants of Kulli carried the goods transported from Sindh to the ports of Makran and from there to the west.

Whatever may be the fact, the direct connection of the Harappan and Babylonian cultures took place almost in 2300 B.C.

Important light could be thrown on the commercial relations between Babylonia and Sindh by the identification of Meluhha in Babylonian inscriptions. Scholars have suggested various identifications. According to Kramer, Meluhha could be identified with Ethiopia. Bibby however places it in India and Wiedener places it in south Arabia. In Babylonian inscriptions Meluhha is always mentioned with Tilmun and Magan. It may, therefore, be surmised that Meluhha was situated at some distance from Tilmun and Magan. Tilmun is identified with Bahrain and Magan with Oman in south-east Arabia. This means that we should try to locate Meluhha after the Gulf of Oman.

It is evident from old Babylonian inscriptions that Meluhha exported an unknown kind of wood, ebony, some furniture, carnelian and copper. But these articles were equally available in Ethiopia, Nubia and India. From here variegated birds made of ivory were also exported to Babylonia. But in spite of all this confusion of identification, there are several intances which prove that in the Zarsa

period Meluhha could be identified with western India, but not with Mohenjodaro and Harappa which were situated far away from the sea and boasted of no port of any sort.

Leemans has advanced several arguments in support of the view: (i) In the Akkad period the commercial relations between Sumer and the Indus valley culture are evident from the seals of the Indus valley type found from Bahrain and Mesopotamia. (ii) Meluhha could not be located in east Africa because in that region there is no trace either of the cultures of western Asia or the Indus valley. It is also worth noting that ships from Meluhha sailed to Akkad and that the former exported coloured ivory birds there. Mohenjodaro has yielded ivory combs and other articles. From a carnelian monkey, perhaps the direction of the Indus Valley is indicated because in western India the mines of Ratanpur yielded good carnelian. Meluhha also exported a wood which is named as mesu. Akkad received serpentine and malachite which is named as musgarru. One is tempted here to equate this word with musaragalva which appears in old Buddhist literature as one of the semi-precious stones identified as amethyst. The state of commerce witnessed by the Indus valley culture and the places with which it was carried on could be determined by semi-precious stones and metals found at Mohenjodaro and Harappa. Perhaps Baluchistan supplied gypsum, alabaster, steatite and silver from Afghanistan and Iran: Iran perhaps also supplied gold. However there is no doubt that it supplied besides silver, lead and zinc. Turquoise and lapis lazuli were imported either from Iran or Afghanistan. Haematite was imported from Hurmuz situated in the Persian Gulf.9 South India and Kathiawar supplied conch-shell, agate, carnelian, onyx, chalcedony, crystal and amethyst. Karachi and Saurashtra exported a kind of dry fish. From the east of the Sindh river probably from Rajasthan came copper, lead, jasper, bloodstone, green chalcedony and other stones for making beads. From Nilgiris in the south came the amazonite. From the forest in the Kashmir valley came deodar wood, gypsum for medicinal purposes and stag horns. Perhaps jade came from eastern Turkestan, Pamirs and Burma.

Commerce in the articles mentioned above presupposes the existence of a merchant class in the cities who carried the goods from one place to another and there must have also been some kind of caravans to transport the goods and also stages on the routes where merchants could stay during the course of their long and arduous journey. Camels must have been used as beasts of burden, but perhaps in the hilly region ponies and goats must have been used. From Jhukar a miniature model of a horse saddle has been found. However, goats must have served as the chief mode of transport, as in later literature the goat track (ajapatha) is mentioned in mountainous regions. In the Indus Valley culture slow moving bullock carts were also common because many models of such a cart have been found. It is significant to note that there is very little difference between the bullock cart of today and that of the Indus Valley culture. Even today the same kind of bullock cart plies in Sindh as 4000 years back.

There should be no doubt that in the Indus Valley culture boats must have

plied on the rivers but we get only four depictions of boats from the engravings on potsherds and seals. One boat has been scratched on a potsherd. Its prow and stern

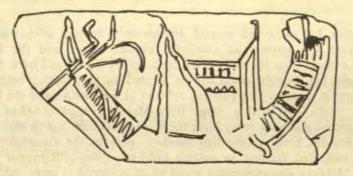


Fig. 1 Boat design, Mohenjodaro, c. 2500 B.C.

are raked and it has a sail attached to the mast and a sailor is rowing it with an oar. The second boat is depicted on a seal. Its prow and stern are also raked and



Fig. 2 Boat, terracotta, Lothal, c. 2500 B.C.

reeds seems to have been used in its construction. In the centre of the boat is a square cabin or a temple made of reeds. A sailor is seated on a high platform on



Fig. 3 Boat design on a Harappan seal, c. 2500 B.C.

the prow (Fig. 1).<sup>10</sup> From the excavations at Lothal by Mr. Rao<sup>11</sup> three types of boats have been obtained in which at least on one boat the sail has been used and the hole in the middle was used for receiving the mast (Fig. 2). In one ocean boat sails have been used and perhaps they were meant for light boats. Professor Kosambit<sup>13</sup> has also drawn our attention to the third representation of a boat on a seal which has been printed upside down in the plate. In this boat the sail, the oar and the anchor are visible clearly (Fig. 3). Such boats also plied in protohistoric Mesopotamia and the forms of ancient Egyptian boats also resemble it in some ways.

Recently George F. Dales13 has excavated a terracotta object with the repre-

sentation of a boat whose prow and stern are raked and the framework was apparently made of reeds. It has two masts with apparent traces of the sails and a cabin in the centre. It is provided with two oars. There are three sea birds, two on the boat and one flying on the sea (Fig. 4).



Fig. 4 A terracotta amulet showing a boat with a cabin, Mohenjodaro, c. 2500 B.C.

The boat mentioned by Mackay has no mast and, therefore, it is suggested by some scholars that such boats plied on rivers and not on the sea. But Mackay<sup>14</sup> is of the opinion that during the Indus Valley culture the boats sailing from the mouth of the Indus sailed to the coastal region of Baluchistan. Even today boats sailing on western Indian coast sail to the Persian Gulf and even as far as Aden though with the mechanisation of boats the number of old dhow is constantly diminishing. If such wretched boats could sail on the sea today, then there is little doubt that even in those ancient days they were sea-worthy. Because it cannot be imagined that the boats in that period were worse than today. It is also possible that foreign boats entered the ports on the sea-coast of western India. But from the researches of Kosambi and Dales there remains hardly any doubt that ancient boats of the Indus Valley culture were provided with sails and masts.

The story of the commercial relations of the Indus Valley cities with foreign lands is based on archaeological evidences, as they provide us with materials which are not easily destructible but also perishable articles. For example we know that cotton was known to the Indus Valley which the Indian merchants living in Sumer used to import from the country. In the absence of references to the prices and articles of perfume in Babylonian inscriptions we cannot say whether in the second millennium B.C. the western sea-coast of India exported spices and aromatic woods in the same way as it did in the early centuries of the Christian era. Piggott, however, is of the opinion that the merchants returning from the southern routes brought from there foreign female slaves. 15

A distinguishing feature of the Indus Valley civilization is its seals which were used in this age for sealing the mercantile goods. Due to the increase in commerce there arose the necessity for a script, the weights and the yard for measurements. Piggott suggests that the Indus Valley culture had direct relation with Sumer in about 2300 B.C. Before that the relation with that country existed through Kulli. The evidence for this fact is that in the age of Akkad between 2300 and 2000 B.C. the archaeological strata have yielded some Harappan seals. It is not yet known what articles Sumer exported to Harappa. Hissar III culture in northern Iran was also related with Harappa in about 2000 B.C. Therefore some articles of Harappan origin had been found there. From the above survey of the Indus Valley culture

we come to the conclusion that the Indus Valley culture had its own personality which often shows the glimpses of foreign contacts. Piggott<sup>18</sup> is of the opinion that the direct relationship with Sumer was established by the merchants from south Baluchistan. About 2300 B.C. this trade passed into the hands of the merchants of Harappa. It is also possible that these merchants had their establishments in Ur and Lagash. This commerce was carried on the coast of the Persian Gulf. Less frequently land routes were also used for carrying on this commerce. At times some adventurous caravans brought turquoise and lapis lazuli and some hairpins from Iran, though nothing is known about the import from Sumer. However future excavations may throw fresh light on this problem.

It appears that about 2000 B.C. the wars between Hammurabi and Elam stopped the trade between Harappa and Sumer. Only after some time of this event the Barbarian tribes appeared in Sindh and the Panjab and perhaps the Indus Valley culture suffered on account of them, though this view has not been accepted by all. On its inherent strength it continued to exist for some time but about 1500 B.C. it came to an end.

The cultures of Baluchistan and Indus Valley starting almost from 3000 B.C. continued in the second millennium B.C. without break. Archaeological researches tell us that it escaped the attack of outsiders for almost eight years but from the excavations of Rana Ghundai III (C) in northern Baluchistan it is evident that the habitations were burnt down in this period. About this level a new culture built new habitations but they were also burnt down. The same thing happened at Nal and Dabarkot. However from the habitations of south Baluchistan no signs of such upheaval are available, but it should be noted here that excavations have not been carried on in this area extensively. But potteries and other articles excavated from the graves of Shahi Tump it can be said that its culture was related to Bampur in Iran, Sumer, South Russia, Hissar III (b), Anau III, and Susa. Now the question arises whether the articles indicative of foreign contact came through commercial relations or they were brought by foreigners. Piggott is, however, of the opinion that they were brought by foreigners.17 He further notes that the new comers who formed bands of war-like people brought with them only weapons. The shadow of this culture in Baluchistan may also be seen in the post-Harappan culture in which most of the articles belong to the cultures of Baluchistan. Piggott again observes that the refugees fleeing through Bolan, Lakphusi and Gaj valley brought these goods, but these refugees could not get peace even in Sindh. The invaders from the west who drove them away followed them to plunder the cities of Sindh, and they after destroying Mohenjodaro, Jhukar, Lohunjodaro settled there. The solution of the problem, however, is not so easy and archaeological researches are still engaged in finding answers to many unsolved problems.

This new culture has been named as Jhukar culture. It is evident from the second level of Chahunjodaro that the people of Jhukar culture lived in mud and wattle huts which were provided with ovens and their household goods were very simple. Their seals were also quite different from the seals of the Indus valley

culture. These seals however are directly connected with the seals of western Asia. The bone needles also point to their contact with some Barbarian culture.

Now if we focus our attention to Mohenjodaro then we find that in the last stages of the city the material for reconstructing its culture is very limited, but certain objects point to the great upheavals of this period. Perhaps it may be due to this that ornaments were buried because the impending doom caused the people to hide their wealth. The finding of more weapons in the later levels also tells us that perhaps danger to life in this period had increased considerably. Some such weapons have also been found at Mohenjodaro which perhaps came from outside. The painted pottery from the cemetery H from Harappa also tell us that their makers came from outside. The animals and birds on those potteries are different from the animals and birds painted on the potteries found from the early levels in the Indus Valley culture. However, designs on cemetery H pottery could be indirectly related to the pottery designs from Samarra in Iran.

The discovery of a sword from the Khurram Valley is a new object for that region though such swords have been found in large numbers in Europe. The date of this sword could be fixed to the second millennium B.C. The sword found from Rajanpur (Panjab) could be compared with the shape of the swords found in Luristan whose date has been fixed to about 1500 B.C. The weapons found from the Gangetic Valley and near Ranchi could also be related with the weapons from the Indus Valley culture. Piggott is of the opinion that perhaps the makers of these weapons came to those places from the Panjab and Sindh as refugees, 18 but again these surmises has been questioned by archaeologists.

On the strength of above evidence it is said that about 1500 B.C. a new race entered India from north-west and where after destroying the cities formed new habitations. The migration of this new race was not confined to India only but it left its marks on Mesopotamia as well. In this very age the Hittites formed their empire in Asia Minor. In Syria and northern Iran also we find their traces, perhaps these new comers had some relation with the Aryans, but it is not yet possible to establish the identity of the new comers.

From the excavations of Navadatoli have been found some spouted ware which could be compared with similar ware found from Sialk in Iran, but on this slender evidence alone it is not possible to prove the presence of the Aryans at Navadatoli.

There are many opinions about the origin and provenances of the Aryans. But from modern excavations it seems that the Aryan languages developed in south Russia and in the coasts of the Caspian Sea. In south Russia there existed agricultural communities in the third and second millennia B.C. and in these communities warriors occupied a prominent place. Suggestion could be made that about 2000 B.C. there existed a loose confederation of many tribes in the region extending from south Russia to Turkestan, whose cultural unity depended on certain art

forms and language. About 1600 B.C. the Kassis with Indo-European names invaded Babylonia. This is the period perhaps when Indo-European tribes in search of new places marched forward. It is evident from the brick inscriptions from Boghaz-Kui that in the fifteenth and fourteenth century B.C. some Aryan gods such as Mitra, Varuna, Indra and Näsatya were worshipped in Asia Minor. Other inscriptions from the same place give instructions about training the horses. In this inscription are mentioned ek varttana tri-varttana etc. which are without any doubt Sanskrit words. There are only two archaeological evidences which bring the Indo-Europeans nearer India in the second millennium B.C. The remains of the Aryans in Iran and India depend only on the legends recorded in the Avesta and the Rig Veda. On the strength of the Rig Veda we can more or less give a picture not only of the religious beliefs of the people but also certain aspects of their social institutions. Most of the scholars have dated the Rig Veda to middle of the second millennium B.C.

We have seen above that almost at this time invaders from north-west whether they were Aryans or not entered India. The Rig Veda informs us that the Aryans fought the Dasas for whom the Rig Veda has used deprecative appellations. But in spite of this the high culture of the Dasas is evident because they lived in forts. These Dasas had to face the vigorous new comers. Gradually the Aryans destroyed the forts held by the Dasas and on account of this activity Indra, the favourite god of the Aryans, took the appellation of Purandara "the Destroyer of Forts". The horse served the Aryans very well during the wars. It was not possible for the Dasas to stand against the heavy onslaught of the cavalry and the chariots drawn by horses. It is not known when the chariot was at first used and when it was first built. But in quite ancient times two-wheeled chariots drawn by horses and donkeys had come into existence. In the second millennium B.C. Asia Minor used chariots drawn by horses. In Greece and Egypt also horse drawn chariot was introduced in about 1500 B.C. It is possible that the chariot was first used in Sumer, and at a later period the Indo-Europeans improved it and used horses for drawing it. The body of the Aryan chariot was secured with leather thongs. The wheels had spokes numbering more than four. The horses were harnessed to the yoke. Two men occupied the chariot namely the warrior and the charioteer. The warrior sat on the left and the charioteer used to stand.

As we have observed above except for some very doubtful evidences there is no archaeological evidence about the migration of the Aryans in this country and, therefore, only the Rig Veda throws light on their religion, cultural and social life. In the Vedas the Aryans affirm with great confidence that they humbled the pride of the Dasas and annihilated them. No doubt they uprooted the Dasa culture, but they also assimilated many aspects of their culture which is evident in the acts of worship and devotion and many traits of Hindu religion.

Now the question arises what routes the Aryans followed in entering India. It has been suggested above that the tribes moving through Baluchistan to Sindh in about 1500 B.C. were in some way related to the Aryans. If it is accepted then we will

have to agree that they entered this country through Baluchistan and Sindh. But Some scholars on the strength of the rivers of eastern Afghanistan and the Panjab mentioned in the Rig Veda have suggested that they entered the country through the north-west. Foucher has explored the route which the Aryans probably followed from historical and geographical viewpoints. He is of the opinion that all routes from the west passed Balkh and, therefore, the Aryans also must have taken the same route.<sup>19</sup>

The Aryans taking the Balkh route crossed the Hindukush and entered India. The Aryan tribes inhabiting south Russia and the plains of the eastern Caspian sea accompanied by the herds of cattle and personal effects, obtaining their food by hunting, perhaps stayed for some time in Balkh. Some settled there, others marched on. It may be taken for granted that before crossing the Hindukush their armed scouts must have secured its passes and made inquiries about their destinations. The march of the Aryans was not a dramatic incident. They must have marched forward slowly fighting their way. After entering the country they must have settled for some time in Sindh and the Panjab. Their descent into the plains of India was only an incident in the long chain of events of the descent of nomadic tribes from high Asia into this country. The stay of the caravans for some days or weeks on small stages, waiting for months or years for the armies and then after several generations marching forward are all events inherent in the migration of races. We should also note that even now the tribal people of Afghanistan accompanied by their women, children, camps and personal effects move forward. There should not be any objection that the Aryans must have marched in a similar way.

Foucher no has drawn a conjectural picture of the march of the Aryans. According to him one day in the spring when the streams provided enough water, a big tribe following the information provided by the investigators, marched on, they had enough food to sustain them in the mountainous regions. They left their chariots behind but loaded their children, camps and articles of food on goats, donkeys and oxen. The headman and oldmen only used vehicles. The rest of the people holding the reins of their animals marched forward, safeguarding the flanks of their caravans; the warriors proceeded in front of the party as they were always in the fear of the attacks by the Kirātas inhabiting the Hazarjat region.

When the route was well established other tribes followed and in the course of time the plains of India was full of them. Naturally there were rivalries between the old and new comers and, therefore, the new comers at times sought the friendship of the Dasas. This rivalry between the tribes is clearly mentioned in the Rig Veda. After the Aryans were well settled in the Panjab the hordes of new immigrants stopped.

According to historians and linguists there were four stages of settlement of the Aryans on their onward march namely: (i) Saptasindhu or the Panjab, (ii) Brahmadesa (the Ganga-Yamuna Doab), (iii) Kosala and (iv) Magadha. Perhaps their first stage between Balkh and Sindh was Kapisi, the second at Jelalabad and

the third in the Panjab. Now a natural question may be asked that how following a solitary route so many people entered the Panjab and in course of time spread all over India. This question, however, could be answered on the basis of geographical considerations.

It may be surmised that the Aryans followed two routes. The straight route followed the course of the Kubha river; perhaps this route was followed by the sections of the armed Aryans. The second route proceeded from Kapisa to Kandhar which had many tracks branching towards the Panjab. The most important of these tracks, in order to reach the Indus river, followed the tributaries and the valleys on the right bank of the Khurram and Gomal rivers.

Scholars are of the opinion that the Vedic Aryans knew about this route because one of the Sutras of the Rig Veda (x. 75) mentions the rivers falling on that route. As the Aryans began penetrating inside India proper they began naming the rivers on their way after the rivers with which they were acquainted for a long time, for example the Gomati now a tributary of the Ganga is named after the Gomal or Gomati of the Rig Veda and the Sarasvati demarcating the eastern limit of the Panjab had assumed the name of Harahvaiti which irrigated the plain of Kandhar. For a very long time the plain of Kandhar was considered as a part of India and the Parthians called it as "Fair India". It may be suggested that the southernmost route passing the Kubha (Kabul), Krumu (Khurram) and Gomati (Gomal) perhaps passing Bolan reached Mohenjodaro. But before taking into consideration this route as one of the probable routes of the Aryan migration, Foucher suggests that inquiries should be made whether this route has any impassable barrier. Objection may be also raised on ethnological grounds. From the study of the people inhabiting Sindh, it is evident that the Aryans came from the north and they used the Bolan pass very sparingly, but as we have seen above from the archaeological remains of Baluchistan, in protohistoric times this route was popular and the people who destroyed the Indus Valley culture whether they were Aryans or not followed this route to Sindh. From the examination of the dry courses of the Drishadvatī and Sarasvatī rivers, Amalanada Ghosh also reaches the same conclusion that the shadow of the Indus Valley culture had reached these rivers. His observation is supported by the excavations at Kali Bangan. If this statement is correct then there should not be any difficulty in suggesting that passing from Sindh the Aryans entered eastern Panjab and Bikaner and uprooting the cultures there established themselves. But the theory of Foucher can only be accepted when it could be established if the remains on the route from Balkh, Kapisi, Pushkaravati and Taxila provide us with archaeological remains contemporary with the Aryan migration,

It is not known how the Iranian and Indian Aryans separated but perhaps this happened in the second millennium B.C. History tells us that the Iranians settled themselves in the north and west of Afghanistan, in Sugdh, Vāhlīka, Marga, Ari and Drang and the Indian Aryans settled in the regions situated in the south-east of Afghanistan. The Aryans had also penetrated in the region of Kandhar and the country between the Hindukush and Suleiman.

The region between the Iranian desert Lut and the Indian desert Thar was a constant cause of friction between the ancient Indians and Iranians. The eastern part of the valleys of the Helmand and Sindh was Indianised. We know that in the Maurya period most of Ariana had come under the political influence of India and the rulers of Iran were ever ready to extend their sphere of influence to the Panjab and Sindh. This thrust and counterthrust continued for a long time but in the end the Suleiman range became the boundary line between the Indians and Iranians. The racial conflict between the inhabitants of Sindh and trans-Indus region is mentioned in the Bhavishya Purana.21 It says that king Salivahana after conquering Balkh and other countries established the boundary line between the Mlechchhas or the Iranians and the Aryans of India. Because of this boundary line the Aryans maintained their foothold in Sindh, but the trans-Indus countries were occupied by the Iranians. On the frontier of these countries there is great admixture of races. The Iranian plateau was invaded from time to time by the nomadic people and we see clear impressions of their life, habitation, culture and different languages. On the other hand in the Indus Valley there already existed a strong culture which maintained its separate identity from geographical and ethnological viewpoints from the cultures of the Gangetic valley and the Deccan.

The Vedic Aryans at first lived in the Panjab but later on they occupied the region of Kurukshetra for a long time. Due to the changes in the density of population and climatic conditions or due to the natural instinct to make further conquests impelled the Aryans to march forward and in this progress the pathikrits of the Rig Veda and Atharva Veda22 played an important role. The use of the epithet pathikrit with Agni perhaps indicates the progress of Yajña, the symbol of Vedic culture in northern India. The form of pathik rit or path finder perhaps indicates the role of Agni in making roads after burning the forests. A very great pathikrit was Videgha Mathava whose story has been preserved in the Satapatha Brahmana. 23 The story relates that raising the standard of Vedic culture on the bank of the Sarasvati river and accompanied by his family priest Gautama Rahugana and Agni, the symbol of Vedic culture, he marched onwards. Drying the rivers, and burning the forests the three reached the Sadantra (modern Gandak river). In the time of this legend Vedic culture had not crossed the river but in the time of the Satapatha the Brahmans lived across the river and Videha had come an important centre of Vedic culture. In the time of Videgha Mathava the land was not cultivated to the east of the Sadānīrā as it was marshy, but in the time of the Satapatha that land was being cultivated. According to the legend when Videgha Mathava asked Agni about its destination then it indicated the east. In the Satapatha period the river Sadantra formed the boundary line between Kosala and Videha.

According to Weber<sup>21</sup> this legend indicates the stages of the advancement of the Aryans to the east. In the first stage the country occupied by the Aryans extended from the Panjab to the river Sarasvati. In the second stage their habitation extended to the Sadāntrā which formed the natural boundary between Kosala and Videha. For some time the Aryans did not dare to cross the Sadāntra but in the time of the Śatapatha they had already established themselves to the east of the river.

In this legend, except for the skeleton of the story of the advancement of Videgha Mathava from the Sarasvati to Sadānīrā, no further details are given. Perhaps that was not possible because the country between the Sarasvati and the Sadānīrā represented by modern Uttar Pradesh was at that time not inhabited by the Aryans; large cities had not come into existence at that time and the Grand Route had not established its course. But there is every possibility that the route established by Videgha Māthava after chopping and burning the jungles was the same route which in historical period served as a sector of the Grand Route from Śrāvasti in the Gangetic valley to Vaiśālī. The southern route in the Gangetic valley was perhaps established by the Kāsyas who laid the foundation of Kāšī.

It is evident from the Vedic literature that the Aryans were not satisfied with the tracks of the prehistoric period passing through forests, village routes and caravan routes for a long time. In the Rig Veda and later Samhitas we find mention of travels on long routes (prapatha),25 which according to Sarkar were transversed by chariots.26 From the Rig Veda to the later period the often mentioned word setu perhaps indicated some kind of dyke in the land filled with water. Later on in the Brāhmanas27 we find how the grand routes were connected with villages. The viaducts were perhaps known as vadvana. 28 It is mentioned in the Atharva Veda 29 that the roads on which bullock carts plied were on a higher level than the smaller routes; trees were planted on both sides. They passed through cities and villages and at times pairs of pillars appeared on them. Dr. Sarkar suggests that perhaps these pillars served as a gateway to the city. As observed in a footnote<sup>30</sup> by him these pillars might have been meant as octroi stations as well. It is also possible that these stones also served as mile stones which Megasthenes saw on the Grand Route from Pataliputra to Gandhara. The prathama or prapatha of the Rig Vedan perhaps indicated a rest-house where the traveller could get shelter and food. Tirtha of the Atharva Veda33 which appeared in the way of a bride perhaps also meant a rest-house at the river crossing. Before the Atharva Veda, avasatha probably meant a guest-house but later on it became one of the synonyms for a house. Dr. Sarkar's a identification of avasatha with the rest-house may be correct. It is evident from the Vedic literature that the Aryans on their onward march were greatly helped by their movement and strength. Wandering in dense forests after making passable routes, the Vedic ascetics and merchants helped in the extension of Vedic culture. The charaiveti hymn of the Aitereya Brahmana at advocating the advancement of physical and spiritual progress lays stress on the movement and travel. The Atharva Veda,23 however, does not forget the highway robbers. At one place prayer is offered to Indra to safeguard travellers from wild beasts and robbers.26 Another place mentions robbers and wolves and it is said that on roads the Nishadas and robbers (selaga) caught the merchants and after looting them, threw them in deep pits. 37

Unfortunately, we do not get much material from Vedic literature as to draw a clear picture of the contemporary travellers, but it seems that they seldom travelled alone. As food was not available on the roads they carried their provisions. It was carried on pingas and the food which they carried on their own person

was known as avasa. 19

In those days great welcome was accorded to travellers wherever they went. As soon as the traveller unyoked the oxen from his cart the host (ātitheya) brought water for him. 40 If the guest turned to be an important man then the whole family made ready to welcome him. Welcoming a guest was considered a part of religion and, therefore, people treated guests well according to their means.

There is hardly any doubt that in the Vedic age travellers undertook long journeys with the purpose of earning wealth.<sup>41</sup> Investment of capital<sup>42</sup> was made and export of goods to distant countries for profit was done.<sup>42</sup> Unmindful of the troubles and travails of long journeys the merchants of Vedic period using the land and sea routes carried on the internal and external trade of India. The Panis were wealthy merchants of this period; perhaps because of their miserliness they had become inimical to the Brahmans, and, therefore, in the Vedic hymns they have been addressed in derogatory terms.<sup>44</sup> In some hymns the gods are invoked to destroy the Panis. At times the poor Panis because of their tight fistedness had to lose their life, and they have also been considered as the opponents of Vedic Yajnas. Among the Panis Bribu was an important person. In a hymn he is remembered as charging very high rate of interest (bekanāta). In a second place he is treated as an enemy, and in the third place he is remembered as a capitalist (grathin, gatha in western Hindi stands for capital). At times he is also addressed as a slave.<sup>45</sup>

From the above citations perhaps it could be surmised that the Panis were non-Aryan merchants and were treated shabbily because they did not believe in the Vedic religion. Some scholars believe that the Panis perhaps stood for the Phonecian merchants, but there is no reason for this belief. We have seen above that when the Aryans came to India at that time most of the commerce of the country was in the hands of the merchants of the Indus Valley culture and Baluchistan. It is possible that the Vedas point to those merchants, but whatever may be the case one point is clear that the Panis did not believe in the Vedic religion and, therefore, the Aryans hated them.

In the Rig Veda vanij is a common term for merchants. Trade was carried on by barter. Though it is difficult to know the articles of trade, however, it could be surmised from the Atharva Veda<sup>47</sup> that dursha (a kind of woollen cloth) and pavasa (leather) formed articles of trade. In the contemporary trade, bargaining was resorted to. In the barter system the cow and satamana coins were used.

It is difficult to say whether in the Vedic period bankers (\*ireshthi\*) existed. But the Brāhmāṇas<sup>48</sup> mention such bankers. Perhaps they headed the nigamas. The Vedic literature also does not give any information about the caravan (\*sārtha\*) nor there is any indication as to how the goods were transported from one place to another, but there is hardly any doubt that the goods were transported by the caravans, because singly the merchants could not face the dangers lurking on the routes.

and and

There has been controversy among the scholars whether the Aryans had the knowledge of the sea or not, but this controversy belonged to an age when the Indus Valley civilization was unknown. As we have seen above in the third millennium B.C. the commerce between Sindh, south Baluchistan to Sumer passed through the sea by ships. Scholars are gradually trying to trace the contacts of the Harappan culture with the Vedic culture and, therefore, it would be surprising that the Vedic Aryans had no knowledge of the sea.

In the Rig Veda<sup>19</sup> the precious stones of the sea, the trade in pearls, the profits of the sea-trade and the story of Bhujyu<sup>50</sup> all these make it clear that the Vedic Aryans had the knowledge of the sea and there could hardly be any doubt about this. In the later Samhitās the sea is clearly mentioned as in the Taittirīya Samhitā. In the Aitereya Brāhmaṇa<sup>52</sup> the sea is mentioned as bottomless and the nourisher of the land; and the Satapatha Brāhmaṇa<sup>53</sup> mentions the Ratnākara (the Arabian Sea) and Mahodadhi (the Bay of Bengal).

The Rig Veda<sup>54</sup> and the later Samhitās<sup>55</sup> mention that sea trade was carried on by boats. Often the word nau was used for smaller boats plying in the rivers. It was also used for rafters (dārunaukā)<sup>56</sup> which could be compared with the modern kattumaram plying on the sea coast of Madras and also the toni.

Most of the scholars are of the opinion that because the Vedic literature does not mention the mast or the sail, the Vedic Aryans had no knowledge of the sea, but there is no point in such arguments because the Vedas are not lexicons which should have included all words. However, there are certain references in the Samhitās which point out that sea voyages were undertaken. The Rig Veda mentions that sea voyages were taken for profit. At one place it is mentioned that the Asvins rescued Bhujyu from a sinking hundred oared ship. According to Bühler this accident points to some voyage of Bhujyu in the Indian Ocean in which he had to face the shipwreck. His ship was equipped with hundred oars. When he found himself in this plight he released birds to find the sea shore. As we shall see later on in the Babylonian story of Gilgamesh the direction finding birds are mentioned. The Jātakas also mention diśākāka which were kept on the ships. In the Vedic period Bribu was a very big sea merchant.

Many technical terms about navigation appear in the Vedas. Dyumna<sup>63</sup> indicates a flotilla and plava<sup>64</sup> was perhaps a sort of a boat. The oar was known as aritra. The Rig Veda and the Vājasaneyī Samhitā<sup>65</sup> mention ships with hundred oars. The oarsmen were known as aritri and the sailors as nāvajā,<sup>66</sup> Perhaps the anchor was known as naumaṇḍa and ŝambina was perhaps the pole for pushing the boats.<sup>60</sup>

We have seen above that in the third millennium and the second millennium B.C. there was trade between Baluchistan and Sind across the sea. In the Babylonian and Assyrian literature, Sindhu was a kind of cloth which according to

Herodotus was common in Egypt, Levant and Babylonia. Herodotus calls this cloth as sindon. According to Sayce<sup>69</sup> the Sindhu was manufactured in Sind though Kennedy and others were opposed to this view.<sup>70</sup> According to them sindhu—sindon was manufactured from some vegetable fibre. But all the opposing views about sindhu have come to an end with the finding of the cotton cloth in the Indus Valley, which was probably exported to Babylonia by the sea route.

In earlier days scholars were of the opinion that Vedic Indians had no foreign contacts. Even Uttara Madra and Uttara Kuru identified with Media and with Krorain (the ancient name of lou-lan) in Central Asia were placed in Kashmir. But as we have seen above in spite of many difficulties the Vedic Aryans undertook voyages on the sea and merchants like Bhujyu and Bribu maintained the contact of India with other countries. Unfortunately no archaeological evidences are yet available about this ancient commerce, but in the Vedas especially in the Atharva Veda there are some words which indicate that in the Vedic age the Indians were connected with Babylonia. Tilak for the first time has thrown light on such words as Taimat, Alagī-vilagī, Urugulā and Tāhuvam, and tried to prove that these words were borrowed from the Babylonians. There is no doubt that these words entered the Atharva Veda in ancient times. It is also doubtful whether the meanings of these words were properly understood. Suvarna manā appears once in the Rig Veda. This could be connected with the Assyrian word Menah. However, these interpretations have not been accepted by all scholars as yet.

Whatever may be the case there is no doubt that in the tenth century B.C. India had commercial relations with foreign countries in which the Arabs acted as brokers. Perhaps in this century through the Arab intermediaries Indian merchants sent to king Solomon sandalwood, precious stones, ivory, monkey and peacocks.

The Hebrew thuki (peacock) is derived from the Tamil tokai. The Hebrew ahal is derived from the Tamil ahil. The Hebrew almug is derived from the Sanskrit valgu and the Hebrew koph (monkey) from the Sanskrit kapi. The Hebrew shenhabbin (ivory) has been derived from the Sanskrit chhadanta. The Hebrew saden has been derived from the Greek sindon and the Sanskrit sindhu. 73

It is also possible that in the ninth century B.C. Indian elephants were exported to Assyria. On a obelisk of Shalmanesar III (858-824 B.C.) an Indian elephant has been represented. It is called baziyati in the inscription which may be a form of the Sanskrit vasita, a synonym of the cow elephant. Scholars are of the opinion that Indian elephants went to Assyria through the Hindukush route. 74

The commercial contact of India with Assyria in this period is further supported by the fact that the Assyrian king Sennacherib (704-681 B.C.) had planted cotton in his garden. In the palace of Nebuchadnezzar (604-581 B.C.), timber of Sindh origin has been found. In the reconstructed temple of the Moon at Ur by Nabodinus (555-538 B.C.) have been found teak logs which were perhaps imported there from western India.

Babylon had perhaps a small colony of the south Indians. From the business tablets found from the house of Murushu from Nippur, it is evident that the house was carrying on business with India.<sup>77</sup> It is perhaps due to this commercial relation that some words of Tamil origin as arasi (rice, Greek oryza); karur (cinnamon, Greek karpians), injiber (dry ginger, Greek jigiberos), long pepper (Greek pepari) and Sanskrit vaiqūrya (crystal, Greek peryks) entered the Greek language.

We have seen above that in the Vedic period sea voyage was considered lawful, but in the Sūtra period on account of the development of caste system and untouchability the sea voyage was prohibited. According to the Baudhāyana Dharmasūtra<sup>78</sup> the northern Brahmans went on the sea voyage, but prohibited by the śāstras the sea travellers were taken as outcastes. Manu<sup>79</sup> was also not in favour of sea voyage because he prohibits the marriage of one's own daughter with a man who sailed on the sea. But this prohibition was apparently meant for the Brahmans only, because in the Buddhist literature sea voyage is very common.

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#### CHAPTER III

## TRAVELLERS IN THE AGE OF MAHĀJANAPADAS

WE HAVE seen in the previous chapter how the Aryans had progressed and organised themselves in the country, but unfortunately in the absence of archaeological evidence their history is still literary and confused. The systematic history of India begins with the occupation by the Achaemenian power of Sind and some parts of the Panjab and the subsequent campaigns of Alexander. These sources inform us that the caravans of the immigrant Aryans had come to a stop on the sector of the Grand Route from Balkh to Taxila and that the chapter of political campaigns had begun. The invasion of India from the time of Achaemenians was continued by the Scythians, Parthians, Kushāṇas, Huns, Turks and the Mongols. In this chapter we shall try to deal with the immigration of foreign tribes in this country.

The campaigns of Cyrus and Darius I were political in nature. The campaigns of Cyrus continued upto the river Jaxartes (Syr Darya) and of Darius I to the Indus. According to Pliny, however, Cyrus reached upto Kāpišī and Herodotus is of the opinion that the campaigns of Darius reached upto the Indian Ocean. Foucher is of the opinion that the campaigns of Alexander were modelled after the campaigns of the Achaemenians as Alexander was much influenced by the Iranians. He adopted their religion and the administrative methods of Darius III. Perhaps this was essential for re-establishing the political boundaries of the Achaemenians. Foucher again draws our attention to the refusal of Alexander's soldiers to proceed beyond the Beas river; it was not due to the fact that they were tired, but because they had re-established the boundaries of the ancient Iranian empire and, therefore, it was not incumbent upon them to go beyond it. When puzzled and angry Alexander returned by the way of the Indus to Iran even then he was taking the same route which Darius I took.

It is important to know about the conquest of Gandhära by the Achaemenians. It is evident from the Achaemenian inscriptions that this event took place in 520 B.C. or a little before that. Sind perhaps came under the rule of Iran in 517 or 516 B.C. Foucher divides the conquest of Sind by the Achaemenians in two parts. Cyrus (552-530 B.C.) in his first campaign put an end to the capital town of Käpiśi then perhaps marching on the Grand Route he conquered Gandhära which became a province of his empire. At that time the frontier of Gandhära in the west was Upairisaena or beyond the Hindukush and in the south to the lower Panjab in which lay Kaspapyros (Kassapapura) or Multan. In the east its boundary touched Rawalpindi which along the river Jhelum formed a part of the kingdom of

Taxila. It should be noted that according to Strabo, the Doab between the Chenab and the Ravi was also known as the Gandaris. From the above boundaries of Gandhara it is evident that it extended from Kapiśa to the Panjab.

To safeguard his long exit route Darius at first decided to subdue the lower Indus and then reach the Arabian Sea and perhaps with this intention he despatched Skylax to explore the lower Indus. His flotilla started from Multan. A little below the city on the left bank of the Chenab, Darius's fleet was made ready which after sailing for two and a half years reached Egypt. In the course of the voyage the fleet touched the Egyptian ports on the Red Sea thus ensuring the safety of the ports on the Western Indian coast as well. With this conquest from the mouth of the Euphrates and Tigris upto the mouth of the Indus, Sind came under his control and the peace of the Indian Ocean was ensured.

But the history tells us that the occupation of Achaemenians over Sind lasted only for a short period. It is known that on the upper regions of the Indus, Alexander did not face much opposition, but in the lower Sind he met with the resistance of the Brāhmaṇa republics. On this basis we may also presume that even the Achaemenians had to face the same opposition.

It is also necessary to know about other countries occupied by the Achaemenians. Their list is given by Herodotus (3/89 ff) which could be compared with the names appearing in the inscriptions of Darius I. The names of these countries follow the racial and administrative terms.\* The inscriptions and the list of Herodotus reveal that in the organisation of these provinces the realization of revenue from the tribes inhabiting there was of primary consideration. For instance, the sixteenth province included the Parthians, Aria, Khorasmia, Drangiana and Sogdiana. The twelfth province included Balkh and Margiana, the twentieth province included the marshy part of Hamun, eastern Sagarati or the nomadic tribes living in Kohistan and some tribes living on the Persian Gulf. The Indians and the Baluchis were included in the seventeenth province. The inscriptions always mention the Makas whose country was situated on the boundary of Sind. In the time of Herodotus the Mukoi were included in the fourteenth province. Herodotus does not mention the current name of Baluchistan but calls it as Parikanya. In the seventh province were included Gandhara and Sattagydai (ancient Iranian Thathagura). This region was situated in the mountains of Hazarjat which were inhabited by the Daradas and Apritis (Afridis). The correct location of the fifteenth province is untraceable. Like Paktha, Arakhosia was not prominent in that period. Paktha, according to Herodotus (III/102; IV/44) was Sulaiman Hill situated in the west of Multan. The mention of the Sakas and Kassapas in the place of Paktha creates certain confusion because in the tenth province the Caspians are mentioned near the Caspian Sea and the Sakas in the Seistan. Foucher identified the Kassapas in the fifteenth province as the inhabitants of Multan which was later on occupied by Kshudraka-Malavas. These Sakas could be identified with the Haumavarga Sakas of Sakasthana.

According to Hékatée Kasyapapura (Kassapapura) was situated in Gandhara but Herodotus places it in another region. To remove this anomaly it could be taken for granted that Afghanistan and Panjab conquered by Darius I were later on divided in the time of Xerxes and Artaxerxes into two equal parts. It seems at this time Gandhara was separated from the lower Panjab and added to Seistan. This division was effected on geographical grounds. The Panjab from geographical point of view is divided into two parts by the Salt Range. In its north the Grand Route passing Peshawar, Rawalpindi, Lahore, and Delhi joined the Gangetic Plain with the High Asia. But the southern part of the Panjab was not connected with the West except through Herat and Gandhara. This region was divided into two parts, one of which included the Kabul valley and the higher regions of the Panjab and the second included the Helmand valley and the lower Panjab. This kind of the division of the road follows geographical conditions.

At the time when the Achaemenians were establishing their power in Sind and Gandhära the country extending from east Panjab to the whole of the northern India had not seen penetrated by any foreign power. This was the period of the Buddha and Mahävira who raised their revolt against the Vedic religion. Even in the seventh century B.C. northern India was divided into sixteen Mahäjanapadas or great states which constantly fought among themselves, but the cultural and commercial relations between them were never interrupted. These Mahäjanapadas were (1) Anga, (2) Magadha, (3) Käśi, (4) Kosala, (5) Vajji, (6) Malla, (7) Chedi, (8) Vamśa or Vatsa, (9) Kuru, (10) Panchāla, (11) Matsya, (12) Śūrasena, (13) Aśmaka, (14) Avanti, (15) Gandhära and (16) Kamboja. In the sixth century B.C. political condition in northern India had undergone certain changes because Kosala had merged Käśi with itself and Magadha had occupied Anga.

In the time of the Buddha we find two big empires and some smaller kingdoms and many republics. The capital of the Śakyas was Kapilavastu, of the Bulias at Allakappa, of the Kalāmas Kissaputta, of the Bhaggas Sumsumāragiri, of the Koliyās Rāmagrāma, of the Mallas Pāvā-Kuśinārā and of the Licchhavis at Vaišālī. These states were situated to the east of Kosala between the Gangā and the hilly tracts. The Śākyas occupied the Himalayan slopes though it is difficult to determine the boundary of their state. The ancient capital Kapilavastu may now be located at Tilaurākot in Nepal. We do not know about the boundaries of the states of the Bulias and Kalāmas but this much is certain that they were situated on the route from Kapilavastu to Vaišālī. Kolias were the neighbours of the Śākyas and the river Rohiņi formed the boundary line between their states. The Mallas had two branches, whose capitals were at Pāvā (Papaur) and Kuśtnārā respectively. Kuštnārā is now situated in the Padrauna District of Uttar Pradesh. The Vaijis occupied most of northern Bihar and their capital was Vaišālī.

There is very little doubt that within the life time of the Buddha, Kosala was the largest kingdom though it had to face the Lichchhavis and Ajatasatru of Magadha. The states of the Śakyas, Koliyas and Mallas situated in the east of

Kosala were under the influence of Magadha. In the south the boundary of Kosala touched Kāšī, where in order to propitiate the people of Kāšī, the younger brother of Prasenajit acted as the ruler of the state in the same way as even after the occupation of Añga by Magadha the rulers of Añga continued to rule over Champa for some time. It is difficult to determine the boundary of Kosala in the west. In that period the northern parts of Lucknow and Bareilly districts were covered with forests, but we know that the northern route of the Gangetic Valley passed through this region. Therefore, it is possible that there must have existed towns in that region. As the Buddhist literature does not mention Uttara Pañchāla it is possible that in the west Gangā formed the boundary line of Kosala and other states within the sphere of its influence.

In the time of Buddha, Prasenajit was the ruler of Kosala. Ajātaśatru of Magadha had defeated him once but later on he avenged the defeat. Prasenajit was deposed by his son Vidudabha. Prasenajit went to Rājagriha to seek help from Ajataśatru, but he died there. To avenge his insult Vidudabha attacked the country of the Śākyas and slaughtered even old men, children and women and thus ending the state of the Śakyas. But Vidudabha also got suitable retribution for his act. While returning from Kapilavastu with his army he was drowned in the river Achirāvati. Thus ended Kosala which was gradually annexed by Magadha.

Like Prasenajit of Kosala and Udayana of Vatsa, Bimbisara of Magadha was contemporary of the Buddha. Anguttarapa (Bhagalpur and Monghyr districts in the north of the Ganga) was at the time under his rule and there was no power in the east and south to confront him. In the time of the patricide Ajatasatru, Magadha had three enemies. Kosala has been mentioned above. At that time the Lichchhavis had also become so powerful that their soldiers crossing the Ganga reached upto Pataliputra and stayed there for months.7 The reason of the enmity between Ajatasatru and the Lichchhavis was the customs duty which was realised in the hilly region on the frontier of Magadha and Vrijji. Perhaps this indicates the route which passes from Jaynagar to Dhankota. Their enmity came to such a pass that in the Mahāprinibbāna Suttanta, we hear Ajātašatru planning to mount an attack on the Vajjis and with this end in view he built a fort to the south of Pāṭaligrāma. Perhaps this village was at that time the boundary line between Magadha and Vrijji. Only after three years of this event Vassakara the minister of Ajātaśatru by his conspiracy caused the downfall of Vaiśāli. The third opponent of Ajātašatru was Chanda Pradyota of Avanti who intended to attack Rājagriha. It is not known at what point the boundary line of Magadha and Avanti met but perhaps it was somewhere in the Palamau district of Bihar. Whatever truth there may be in this conjecture, rivalry between Avanti and Magadha was for the possession of the Gangetic Valley. It is natural that Udayana, the ruler of Vatsa, was on good terms with his father-in-law Chanda Pradyota of Avanti. Bodhikumāra, grandson of Pradyota, with the intention of attacking Magadha was camping at Sumsumaragiri or Chunar. It is possible that Pradyota also followed the same route. However, it is clear that in the time of the Buddha both the kingdoms of Avanti and Magadha intended to establish their authority in northern India. But after the defeat of the Vajjis, Ajātasatru became very powerful and in this way Magadha became the great empire of the north.9

Udāyibhadra, the son and successor of Ajātaśatru, laid the foundation of Kusumpura or Pāṭaliputra in the south of the Ganga. This new city apparently was built near Ajātaśatru's fort. From the very beginning this city became a great centre for commerce and politics.

In northern India at that time there existed another great power of Vamsa or Vatsa. To the east of this kingdom lay Magadha and to the south Avanti. Within its territory was included a part of Chedi and Bharga. Panchala lay to its west and was perhaps under the rule of Vatsa. In the country of Sauresena, to the west of Vatsa, ruled Mathura Avantiputra, grandson of Pradyota. To its north the Kuru king ruled over Thullakottitha and, therefore, he was a kinsman of Udayana. It is evident from these references that Vatsa at that time was as extensive a kingdom as that of Kosala. As Kosala was lost to Magadha, in the same way Vatsa fell a prey to Avanti. On account of this only Magadha and Avanti remained to carry on their feuds.<sup>19</sup>

We have described above some of the kingdoms of the Gangetic Valley and Malwa, but as we have seen the sixteen Mahājanapadas included Gandhāra and Kamboja as well. The Buddhist literature informs us that Gandhāra was ruled by Pushkarasāri. If as suggested by Foucher the Achaemenians had advanced upto the Beas, then they must have come face to face with Pushkarasāri, but the Pāli Buddhist literature does not hint to such an event. Here we want to draw the attention of the scholars to a story appearing in Buddhist Sanskrit literature. The story says that Jivaka Kumārabhritya, the great physician, proceeded to Taxila to study medicine. During his stay there the Khasa tribe of the Pāṇḍavas inhabiting the frontier region attacked the city of Pushkarasāri but with the help of Jīvaka Kumārabhritya, the king was able to defeat the attackers. It is not known who were these Khasas. But it is possible that the story perhaps indicates the advance of Darius I towards the Panjab.

The Buddhist literature is also acquainted with the people living in the country of Kamboja though it is a debatable question whether in the time of Buddha, Kamboja was included in India proper.

We have hurriedly surveyed above the conditions of the states and republics in the Panjab and the Middle Country. In order to understand the traditional events on the Grand Route, on the strength of the Buddhist literature we can safely say that in the time of Buddha the Grand Route of Northern India proper started from the country of the Kurus and then passing through Uttara Pānchāla (Bareilly district) and going through the territory of Kosala and its tributaries like the Śākyas and Mallas reached Kapilavastu. After the destruction of Kapilavastu, the route between Śrāvasti and Kapilavastu lost its importance and gradually the territory of the Śākyas was swallowed by dense forests. With the inclusion of Kosala and Vajji

Janapadas in the Magadha empire its territories extended from Uttar Pradesh to Kajangala in north Bihar. The southern route of the Gangetic Valley starting from Indraprastha and passing Mathura reached Kauśāmbi and then proceeded to Chunar. On this sector of the route the Vatsa influence was predominant. From Kauśāmbi the capital of the Vatsas, one straight route proceeded to Ujjain, but after the fall of the Vatsas the section of the route between Mathura and Ujjain came within the power of Avanti. It was only after Ajātaśatru that the trade routes of the Middle Country were divided between the kingdoms of Magadha and Avanti.

As we have seen above the reason of constant warfare between the sixteen Mahājanapadas was political, though economic factor might have also played its part. The route proceeding to Ujjain connecting northern India with the coastal region of western India was in the hands of Avanti, which also exercised influence over the route between Kausambī and Pratishthāna. In this way controlling these routes Avanti could stop the commerce of Magadha with western and south India. In the same way parts of the northern and southern routes in the Gangetic valley being under the control of Magadha that state could easily stop profitable commerce of the people of Avanti with Kasī and Magadha.

#### H

We have summarised above the political history of the Indian routes but their importance was not only political but commercial as well. The Pali literature mentions many incidents on the roads and the adventures of travellers, informing us how courageous the merchants and travellers were.

It seems that in the time of Pāṇini the Indian routes were divided into separate categories. Commenting on a Sūtra of Pāṇini ("Uttara-pathenāhṛitam") (V/1/77), Pataṇjali quotes a Vārtāika of Kātyāyana namely "ajapatha sankupatha-bhyam cha". According to this from ajapatha and sankupatha were derived ājapathika and sankupathika. From the land routes came black pepper and madhuka (madhukamarichayoraṇasthalāt) i.e. for trading in madhuka and pepper the land route was used. According to Hema Chandra the word madhuka was used for zinc as well (Etude Asiatique, vol. 2, p. 46, Paris, 1925).

Ajapathika or the track on which only goats could pass is mentioned by Pāṇini in his gaṇapāṭha (V/3/100). Along with this are mentioned devapatha, hamsapatha, sthalapatha, karipatha, rājapatha and šankupatha. We will see later on how the travellers made use of these routes and tracks.

The Jatakas mention many kinds of roads though it is difficult to distinguish them from one another. This much, however, is evident that most of the roads were dirty roads. Comparing the Grand Routes (mahāmagga, mahāpatha, rājamagga) with the smaller roads reveals the fact that some roads were specially constructed and did not come into existence because travellers passed over them. The roads were generally uneven and dirty.<sup>12</sup>

The routes often passed through forests and deserts and there was always the danger of drought, wild animals, robbers, ghosts, and poisonous plants.<sup>13</sup> Often heavily armed robbers robbed the travellers of their clothings<sup>14</sup>. Often the primitive tribes (atavīmukhavāsī) acted as guides to caravans on difficult routes and for that they were amply rewarded.<sup>15</sup>

When grand routes were traversed by big armies then they were accompanied by a labour force for repairing the roads. The Rāmāyaṇa¹¹¹ mentions that when Bharata proceeded to Chitrakūṭa to meet Rāma he was accompanied by a huge labour force. The army was proceeded by guides (daišika, pathajña), topographers (bhūmi-pradeshaṇa), surveyors (sūtra-karma-višārada), unskilled labourers, masons, engineers (mantra-kovida), carpenters, diggers (dūtrin), tree planters and the builders of bamboo huts (vamšakarmakāra).¹¹¹ This labour force which could be compared to the modern sappers and miners levelled the ground, chopped the trees obstructing the roads, repaired old roads and also laid new roads.¹¹ They cut the trees on the roads skirting the hills and removed other impediments and planted trees in arid regions. By felling big sāl trees the ground was levelled and the rocks in the way were broken with pick-axes. The low lying areas on the roads and blind wells were filled with earth and on the rivers in the way boat bridges were provided.¹¹Þ

It is at least evident from the Ramayana that the roads on which armies marched were constantly repaired. A Jataka20 informs us that a Bodhisattva was engaged in repairing roads. He with his comrades got up early in the morning and then with road-making implements such as shovels and rollers they went to their work. At first they removed stones from the road crossings and in order to facilitate the movement of the wheels, they lopped off certain trees with their axes. The even roads were levelled, dykes were made, tanks were dug up and rest houses were raised. It is clear that the Bodhisattva and his comrades did the same work as the labour force accompanying Bharata's army. It is also evident from the Jatakas that the sanitation and repair of the roads was entrusted to a specialised labour force but it is not known what position they occupied in the general administration of the state or the city.

When important persons travelled on the road then also it was repaired. Bimbisara, king of Magadha, when he heard that the Buddha was proceeding from Vaisalt to Magadha, he requested him to postpone his journey temporarily to give him time to repair the road. The road from Rajagriha to the extent of five yojanas was levelled and at every yojana a rest-house was set up. Across the Ganga the Vajjis also did the same thing. When all this arrangement was complete, the Buddha set out on his journey. In ancient India free rest-houses were provided on roads for the comfort of travellers. A Jataka gives an interesting story about the erection of such a rest-house on the city square. But they decided that in the performance of such a religious act they would not take the help of any woman. But women could not be hoodwinked by such a pious resolution. One of the women approached the carpenter and asked him to make for her a pinnacle. The carpenter

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had some dry wood with him and he at once made it. When the erection of the rest-house was complete then the builders came to realise that it had no pinnacle and the carpenter was asked to make one. He, however, informed his friend that such a pinnacle was with a particular woman. They requested her to give it to them. But she refused to part with it till they were prepared to share the act of merit with her. By the force of circumstances later on they had to accept her term. This rest-house was provided with chowkies for sitting and water-pots. It was fenced with a wall which had a gate. In the open space inside the rest-house sand was spread and outside rows of palm trees were planted.

In another Jātaka<sup>23</sup> it is mentioned that the citizens of Anga and Magadha always travelled from one kingdom to another and on the boundary of those states they stayed in a rest-house. In the night they happily drank wine and ate kababs and fish and as soon as the day dawned they started on their journey on their bullock-carts. From the above account it is evident that the sabhā (rest-house) of that period was like the sarāi of the Mughal period.

Sabha :

Those travellers who reached the city gate at night were not allowed to enter the city. They had to pass their night either in the gate-keeper's lodge or forced to take shelter in some dilapidated haunted house, 21 but it is said that the city of Taxila had a rest-house outside the city gates where travellers could stay even after the gates were closed. 25

As we have seen above alongside the roads, wells and tanks were provided for the comfort of travellers. It is mentioned in a Jātaka<sup>20</sup> that on the highway to Kāśī, there was a very deep well which was not provided with steps to reach the water. But even then travellers passing that way, in order to gain merit, drew water from that well and filled the troughs for animals.

Many rivers crossed the routes on which there were ferries. A Jataka<sup>27</sup> tells us the story of a foolish boatman who after ferrying passengers asked them for their fare which he never got. The Bodhisattva advised him to charge his fare before he ferried passengers across the river because those who crossed the river had one mood on one side and quite another after they had crossed the river.

The Jātakas do not mention about bridges on the rivers but in the shallow waters people crossed the rivers by dykes and for deep waters small boats (ekadon) were used. 28 Kings often travelled with a flotilla of boats. At one place it is mentioned that the king of Kūśī crossed the Ganga with his flotilla (bahunāvasanghāṭa). 29

Travellers either travelled on foot or used conveyances. The wheels of bullock carts were often iron tyred.<sup>20</sup> Chariots and sedans were comfortably cushioned.<sup>21</sup> Princes and rich men often travelled on palanquins.<sup>22</sup>

In ancient times while passing through dense forests travellers were very much frightened of robbers, wild beasts, evil spirits and non-availability of food.<sup>23</sup> According to the Anguttara Nikāya<sup>24</sup> robbers lay in wait on the roads for travellers.

The leaders of robber gangs treated difficult routes as their friend. Deep rivers, unpassable mountains and the plains covered with grass and shrubs helped as their hideouts. They not only bribed government officials but at times even kings and their ministers took their help for their own gains. If inquiries were instituted against them they took recourse to bribing in order to escape punishment. At times they caught travellers in order to realise ample ransom from their friends and relatives. In order to realise the settled amount of the ransom they at first released half the number of the people they had caught and the other half later on. 25 If robbers caught a father and son together then they kept the son with themselves and sent the father to bring the settled amount of the ransom. If their prisoners happened to be a teacher and disciple, then they kept back the teacher and sent his disciple to bring the ransom money for his release.36 The state did not take any special measure to stop the depredations of the outlaws. It seems that as in the Mughal period travellers had to make their own arrangements for their protection.37 Caravans appointed aboriginals to act as gudies and to protect caravans.35 These tribal men had well-bred dogs, wore yellow garments and red garlands and their hair was tied with ribbons. They used stone tipped arrows.

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At times the captured robbers were awarded very heavy punishment, they were tied with ropes and put into jail. There they were tortured and then hung on gibbets made of wood. Often their noses and ears were chopped off and they were thrown into lonely caves or in rivers. For capital punishment they were handed over to hangmen (choraghātaka) who were provided with thorny whips and sharp edged axes. Criminals were made to lie down on the ground and whipped. Very often their limbs were chopped off.

There was great danger from wild beasts on the roads. It is said that the Grand Route to Banaras was visited by a man-eater (tiger). People also believed that forests were haunted by witches who under false pretences devoured travellers. Owing to the non-availability of food on the route travellers had to carry their own provision. Cooked food was carried on bullock carts. Travellers on foot, however, had to subsist on sattū (grain meal). It is said at one place that the young wife of an old Brahman filled a leather bag (chammaparisibbakam) with sattū and handed it over to him. After eating some sattū he proceeded to drink water leaving the bag open. As a result a snake entered it.

At times owing to the fear of untouchability, Brahman travellers had to undergo many hardships. It is mentioned in a story that the Bodhisattva, born in a family of untouchables, once undertook a journey providing himself with some rice. On the road a northern Brahman without any provision accompanied him. In the way, suffering from the pangs of hunger, he was forced to eat the leavings of the Bodhisattva. But in the end to expiate for his sin the Brahman entered a dense forest and lost his life.<sup>47</sup>

People did not travel only for commercial purpose. The roads were equally used by ascetics, pilgrims, showmen, jugglers and students. The Jātakas frequently

mention that at the age of sixteen princes proceeded to Taxila for their education. 48 People also travelled to gain knowledge of different countries and their inhabitants. It is mentioned in the Darīmukha Jataka 49 that prince Darīmukha with his friend, son of the royal priest, after finishing his education at Taxila toured other parts of the country to study the manners and customs of the people.

At times learned men travelled for disputations in the Śastras. A Jataka gives an interesting story about this. The is said that after the death of their father four sisters holding the branches of jamboline tree, travelled to many cities for disputations and finally reached Śrāvastı. There, outside the city gate, they planted the jamboline branches and made a public announcement that if anybody dared to uproot the branches he would have to enter into public disputation with them.

In those difficult days if a traveller could get a companion he considered himself very fortunate but steadiness was considered a necessary virtue for him.

The Dhammapada forbids to travel with the lazy and the foolish. In the absence of an intelligent companion it was better to travel alone. In the traders from north-western India often travelled to Väränasi<sup>53</sup> alone. In one Jätaka, <sup>53</sup> a very amusing story of a horse trader is given. Once a merchant with 500 horses came to Banaras from Uttarapatha. The Bodhisattva when he was in favour of the king allowed the horse seller to put his own prices on the horses. But at that time the greedy king sent one of his own horses among those 500 horses for sale and his horse bit the other horses and the merchant was forced to sell his horses at much reduced prices.

Pedlars often undertook long journeys. It is mentioned that once the Bodhisattva accompanied a dealer of pots and pans. After crossing the Jailavähä river they reached Andhapur (Pratishthäna). Both of them divided the city in two parts, and entrusted one part to each to carry on his business. They began calling the people to buy the pots. Often they were able to get gold and silverware in exchange for their pots and pans. They always carried a weighing scale, cash money and bags. In another place we are told that a potter from Väränasi loading his ceramics on a donkey carried them from city to city to sell them. Once he proceeded as far as Taxila. 55

In search of their livelihood dancers and acrobats also travelled from place to place. It is mentioned in a Jātaka<sup>25</sup> that a courtesan named Sāmā sent a party of acrobats in search of her lover, a robber chief.<sup>27</sup> In another place the story of acrobats says that every year five hundred acrobats visited Rājagriha where they earned sufficient money from their shows. One day a female acrobat showed such astounding feats that the son of a banker fell in love with her. She agreed to marry him on the condition that he should himself turn an acrobat and join the party. He agreed to her condition and in due course became an acrobat.

In the Buddhist literature such travellers are also mentioned who went on

long journeys only for enjoyment. The only award of such journeys was the adventures befalling them. One of the Jatakas gives an interesting account of such adventures. It says, "He wandered as a pedlar in Kalinga, and holding a staff he traversed uneven and difficult routes. He was often seen in the company of acrobats and sometimes he was seen trapping innocent animals. He often gambled and at times he spread his net to catch birds and sometimes he fought with a stick in the crowds."

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In spite of many difficulties in travelling there is hardly any doubt that masters of the caravan increasingly carried on internal and external trade of India. They were not only machines for earning money, they were also the carriers of Indian culture and adventurous spirit abroad. We are often under the wrong impression that India in all periods was a peaceful and wealthy country. However, history is a witness to the fact that this country also suffered from the same weaknesses as other countries. Like today even in those days there were robbers and thieves. Forests were infested with wild beasts and the caravans often missed the right direction and proceeded in a wrong direction. In such condition the safety of the caravan depended on the intelligence and quick decision of its leader. He had complete control over the movement of the caravan and he expected implicit obedience from his comrades. It was his duty to arrange for the food of the caravan and its proper distribution. He was also a clever trader. In the times of danger he never lost the equanimity of mind and we shall see later on by this alone he was able to protect his caravan against many dangers. It is mentioned in a Jatakato that when a caravan entered a forest then the master of the caravan issued an order to his followers that without his permission they should not eat strange leaves. fruits and flowers. Once his followers fell ill by eating the forbidden articles but the master of the caravan cured them by administering emetics.

In one Jataka the story of the Bodhisattva who acted as master of the caravan is given. Once when he was making preparations to start on a journey another foolish merchant also decided to start his caravan at the same time. The Bodhisattva thought that if a thousand carts started simultaneously then there was every possibility of the roads being ruined, water would become scarce, and there would be no food and grass for bullocks. Therefore, he decided to allow the second caravan to precede him. That foolish leader of the caravan thought, "If I proceed first then I will be in an advantageous position. The road will be undisturbed, the oxen will be able to get fresh grass and my men will be able to get fresh vegetables. We will be assured of good water supply and I will be able to barter my goods on good terms." The Bodhisattva, however, thought of the advantages accruing to his caravan starting later on, "The first party will make the road level, his oxen will graze the old grass, and my oxen then will be able to get fresh grass, after the old vegetables are picked up my men will get fresh vegetables, and the first caravan unable to get fresh water will have to dig new wells which will provide us with fresh water. To fix the prices of the goods is a difficult matter and if I follow the

first caravan then I will be able to sell my goods at the prices already fixed by the first party."

The foolish master of the caravan loaded water vessels on his cart to cross a desert stretching for sixty yojanas. But tricked by evil spirits who informed him that there was sufficient water on the route, he threw away the water. Going in front, he and his comrades with their servants in order to save themselves from the ferocity of the wind preceded the carts. But whenever the wind blew behind them, then they went behind the caravan. The end came as destined. Scorched by terrible heat they died in the waterless desert.

The intelligent Bodhisattva acting as master of the caravan when he reached on the border of the desert, he ordered the filling of the water pots and asked his followers that without his permission not even a handful of water was to be used. As the desert was full of poisonous plants and fruits, he told his followers not to use them without his permission. The evil spirits in the way tried to persuade him to throw away the water telling him that it was raining ahead. After hearing this the Bodhisattva put certain questions to his followers, "Some people have informed us that it is raining in the jungles ahead of us. Will you tell us from how far we can find out the rainy wind?" His comrades answered, "One yojana". The Bodhisattva again questioned, "Has such rain laden wind reached us?" The comrades answered "No." The Bodhisattva again put a question, "From how far one can see the flash of lightning?" The comrades answered, "From four or five yojanas." The Bodhisattva again put a further question, "From how far a man could hear the thunder of clouds?" The comrades answered, "From two or three yojanas". The Bodhisattva then asked "Has anybody heard the thunder?" They answered "No." After these questions and answers the Bodhisattya informed them that the information about the rain ahead was false and in this way the caravan was able to reach its destination safely.

In one Jatakaet it is said that the Bodhisattva was born in the family of a master of caravan in Varanasi. Once upon a time leading his caravan he reached a desert sixty yojanas wide. The dust in that desert was so fine that it slipped between the fingers if it were held in closed fist. It was difficult to travel during the day in that burning desert and, therefore, the caravan carried with it fuel, water, oil and rice, and travelled during the night. In the morning the travellers arranged their wagons in a circle and covered them with an awning. After finishing their breakfast they rested for the whole day in the shade. After the sunset taking their dinner and as soon as the earth cooled down a little they pushed on their wagons and resumed their march. The travel in this desert was like sailing in the ocean. A guide (sthalaniryamaka) with the help of stars guided the caravan. When some distance remained for crossing the desert, then throwing away the wood and water the caravan proceeded. The guide seated on the leading wagon and marking the movements of the stars guided the caravan. Unfortunately, he fell asleep and as a result the oxen turned in another direction. When the guide woke up in the morning then, realising his mistake, he ordered the wagons to turn back. The

members of the caravan then became very much troubled but the Bodhisattva kept his mind cool. He saw a green spot where he thought water was available. After digging quite deep, the diggers came across a rock, and the people thought that no water was available. But at the order of the Bodhisattva a man got down in the well and broke the rock with a hammer and the water came out gushing. They drank the water. Some of the carts were dismantled and from the fuel thus obtained they boiled rice and fed themselves and their animals. After that crossing the desert the caravan reached its destination safely.

In the absence of any geographical information it is difficult to identify this desert, but it is possible that perhaps this was either the desert of Thar Parkar or Marwar. Till recently the camel caravans passing between Sind and Kutch crossed this region during the night with the help of the stars.

#### IV

The sea ports perform several useful functions. They serve as gateways and windows seated on which we can enjoy the colourful beauties of foreign lands. Coming out from these geteways Indian merchants met foreigners and through these gateways entered foreign merchants who sold their articles to Indian merchants and bought manufactured and raw products of the country. This commerce continued for a very long time. Ancient Indian merchants exporting Indian goods to foreign lands and importing foreign goods were not merely mercenary traders but also ambassadors of Indian culture, who, though working for their own profits, had enlarged their social viewpoint. Crossing geographical boundaries they helped the human society to come closer.

The international viewpoint of Buddhist merchants and sailors was different than the parochial viewpoint of the Brahmans whose world was confined to the country between the Vindhyas and Himalayas, in the south to the sea, in the west to the Indus and in the east to the Brahmaputra river. For the Brahmanic culture Aryavarta was the centre of the universe and those living outside its boundaries were treated as hateful Mlechchhas. In the matter of food and drinks and in marriage the caste system held sway, and, therefore, fearing contacts with foreigners sea voyage was forbidden, though it is open to question that in ancient India how many people followed the general ban. The Buddhists, however, did not believe in caste system and, therefore, we get many accounts of sea voyage in the Buddhist literature which are almost absent in the Brahmanical literature.

In Jātaka stories many sea voyages are mentioned which point to the difficulties of Indian sailors. Many merchants sailed to Suvarṇadvipa or Malaysia and Ratnadvipa or Sri Lanka. The Baveru Jātaka (Jātaka 339) informs us that some merchants of Vārāṇasi taking a direction finding bird with themselves set out on a sea voyage to Babylonia. The merchants in their second voyage sold a peacock there. This voyage was performed through the Arabian Sea and the Persian Gulf. The Suppāraka Jātaka (463) tells us that the brave sailors of ancient

India passed Khuramala (the Persian Gulf), Agnimala (the Red Sea), Dadhimala, Nīlakusamāla, Nalamala and Balabhāmukha (the Mediterranean Sea), however, history informs us that before the Christian era the Indian navigation did not proceed beyond Bab-el Mandeb. From this point the Arab agents took hold of Indian cargo and carried it to Egypt. The frequent mention of Suvarṇadvīpa in the Jātakas is considered by scholars as a proof of the later date of the Jātaka stories. But it is important to remember here that Kauṭilya's Arthaiastra also mentions it and it was visited by Indian merchants in search of aromatics and spices for a very long time. Indians, however, went to settle down in Malaysia in the early centuries of the Christian era.

The Śańkha Jātaka<sup>62</sup> mentions a voyage to Suvarnadvipa. A Brahman named Śańkha seeing his property diminishing on account of his munificent habits, took to a voyage to Suvarnadvipa. The ship was built by himself and loaded with cargo. After taking leave of his relatives he reached the port with his servants. In the afternoon his ship weighed anchor.

In ancient India sea travellers had to face many difficulties and dangers and those who returned home safely from such voyages were considered very lucky. In such conditions one would well imagine the anxiety of their relatives. The mothers and wives of travellers tried to stop them from such hazardous journeys, but unlike the voyagers of Mediaeval India, ancient Indian sailors were not made of soft stuff, and they were not sentimental. At one place it is said that when a wealthy merchant of Väränasi built a ship and decided to take a sea voyage his mother tried her best to dissuade him, but as he was determined to sail he left his mother weeping and boarded the ship. 63

In ancient India the wooden ships were often drowned by whirlpools (vohara). Their greatest weakness was their very simple construction. On account of this the timber was unable to withstand the pressure of water which seeped through the joints in the rough sea and the sailors had to bale it out. When the ship began sinking then poor merchants prayed to their gods to save them from the calamity. Then they saw that their prayers did not bear fruit, then floating on the planks they often reached dangerous places. It is mentioned in the Balahassa Jātaka that when a ship was wrecked near the coast of Sri Lanka then the voyagers swam to the coast. When this news reached Yakshinis inhabiting the island, they after decorating themselves and taking rice gruel reached those merchants with their children and servants and promising marriage with them managed to devour them.

Before abandoning the wrecked ship the voyagers filled themselves with ghee and sugar which could sustain them for several days. It is mentioned in the Śańkha Jataka that on the seventh day of Śańkha's voyage the ship developed leaks and the sailors were unable to bale the water out. Fearing for their lives they became boisterous, but Śańkha, keeping calm took a servant with him and oiling his body and partaking a meal of ghee and sugar climbed the mast and plunged into the sea and floated for seven days.

The Mahājanaka Jotaka (539) gives an eyewitness account of a sinking ship. The ship of Mahajanaka sailing with speed towards Sri Lanka developed cracks and began sinking. The voyagers began cursing their fate and praying, but Mahajanaka did nothing of the kind. When the ship began submerging in the water then he caught hold of the floating mast. Others floating in the sea were attacked by dangerous fishes and turtles and the sea became red with their blood. After floating to some distance Mahājanaka left the mast and began swimming freely. In the end he was rescued by Manimekhala, the goddess of sailors. We have seen above that in the time of danger travellers prayed to their gods. According to the Śankha and Mahajanaka Jatakas, the goddess Manimekhala presiding over the seas protected voyagers with religious bent of mind. The researches of Prof. Sylvain Levi have proved that Manimekhala as a heroine and a goddess was popular among the common people. As a goddess her worship was common in the city of Puhar situated at the mouth of the Kaveri and there was another temple of hers situated at Kanchi. As a goddess her influence extended from the Cape Comorin to lower Burma. The Jatakas also inform us that ships were made of timber planks (daruphalakani).70 They sailed with favourable wind (erakvayuyutta).71 We get also further information about the construction of the ship. Besides its outer framework it was provided with three masts (kūpa, Gujarati, kūā thambha), rigging (yottaran), sails (sitam), planks (padarani) and oars (lankharoh). 12 The helmsman (niyāmako) controlled the movement of this ship with the help of a steering wheel.73

The sailors had their own guild, whose chief was called as niyamakjettha. It is said that at the age of sixteen, Supparakkumara had become the chief of his guild and gained proficiency in the art of navigation (niyamakasutta).74

Like the ancient Phoenecians and Babylonians, the Indian sailors also used direction-finding birds for locating the sea-shore. These direction-finding birds were released from the ships. In the Kevaddhasutta of the Dīghanikāya, in the words of Buddha, "In very ancient times the sea-going merchants took direction-finding birds on their ship which were released when required. They flew in all directions and alighted when they saw solid ground. But if no such ground was seen they returned to the ship."75 We have seen above that the Bāvenu Jātaka also mentions the direction-finding birds. According to this Jātaka the Babylonians had no knowledge of such a bird and, therefore, they bought it from an Indian merchant, but the Babylonian literature is explicit on the point that the Babylonians knew about the direction-finding birds from the hoary past. It is mentioned in the story of Gilgamesh that the ship of Utanipishtam reached the Nistir Mountain and then settled down. At first was released a pigeon and afterwards a sparrow to find the shore. In the end a crow was released and when it did not return then it was decided that the sea-shore was very near. The

When the ship was in trouble then the reason for that was assigned to the presence of some unfortunate voyager. His name was found out by casting the lot.<sup>77</sup> It is said that an unfortunate voyager named Mittavindaka reached the port of

Gambhīra and there finding that a ship was about to sail, joined the crew. Nothing happened for six days, but on the seventh day the ship suddenly came to a halt. After this other voyagers decided to cast the lot to find the name of the unfortunate person who had caused the accident. The lot was cast and the name of Mittavindaka came out. After that he was forcibly put on a raft and released in the open sea.

There is very little material in Buddhist literature which tells us about the amusement of the voyagers on board the ship, but it could be taken for granted that they enjoyed music provided for their amusement. A Jataka<sup>78</sup> tells us a very amusing story of a musician, whose music almost caused a shipwreck. It is said that some merchants on their voyage to Suvarnadvipa took with them a musician named Sagga. On board the ship they asked him to sing. At first he refused but the people insisted and he began singing. This caused such commotion among the sea fishes and other animals that it almost caused a shipwreck.

The Jātakas also tell us that on the western sea coast Bharukachchha, Suppārakas and Sovīras were chief ports and on the eastern sea coast Karambiya, Gambhīras and Seriva. These ports were connected by internal trade routes to important cities. These ports also carried on trade among themselves. There was active commerce between India and the western countries. Valahasysa Jātakas mentions our trade with Sri Lanka. Vārānasī, Champā and Bharukachchhas routes had commercial relations with Suvarnabhūmi and the Bāveru Jātakas informs us that there was commercial relation between India and Babylonia.

The Supparaka Jataka90 informs us that sea merchants once started from Bharukachchha and passed Khuramala, Nalamala, Valabhamukha, Agnimala, Dadhimala and Nılakusamala. As these names are mentioned in the Gathas they are very old. Dr. Jaiswal<sup>91</sup> has identified Khuramala with some ports on the Persian Gulf situated in south-eastern Arabia. Agnimala according to him could be identified with the sea coast near Aden and some parts of Somaliland. Dadhimala is the Red Sea and Nilakusamala is a part of Nubia situated in north-east coast of Africa. Nalamala is the canal joining the Red Sea and the Mediterranean and Valabhamukha is some part of the Mediterranean in which even today we find volcanoes. If Jaiswal's identifications are correct then we will have to agree that the Indian navigators were well acquainted with the sea route between Broach and the Mediterranean. Whatever may be the case, it is evident from the Grecian and Latin sources of later date that Indian sailors had no knowledge about this route. They did not proceed beyond the strait of Bab-el Mandeb and the commerce between the Red Sea and the Mediterranean was in the hands of the Arabs. This, however, does not mean that the Indian sailors had no knowledge of the route between the Red Sea and the Mediterranean, as we shall see later on some individual Indian sailors reached Alexandria, but mostly their ships did not go beyond Socotra.

We have tried above to draw a picture of the different aspects of the sea voyages of Indian merchants. It is, however, worthwhile to note the experiences of the sea-faring merchants. It is difficult to say whether there is any historical basis for such stories, but there is no doubt that these stories were written on personal experiences of sailors and merchants undertaking sea voyages. Whatever may be the case, there is no doubt that these stories give glimpses of the adventurous sailors who unmindful of difficulties crossed the oceans and enhanced the glory of their motherland in foreign countries. We have pointed out above that shipwrecks in the Indian Ocean were common occurrence. The voyagers on these shipwrecks often reached lonely islands and lived there till they were rescued. It is related in a Jataka that a disciple of Kassapa Buddha undertook a sea voyage with a barber. The ship was wrecked and the disciple with his barber friend floating with a plank reached an island. The barber killed some birds and after cooking their flesh wanted to share it with his friend. But his friend refused to accept his offer. When he was meditating, suddenly a ship reached there but it was a ghost ship. From the ship the spirit cried, "Is there any passenger to India?" The monk replied "Yes, we are ready here to sail for India". The spirit said, "Then come quickly". At this the monk boarded the ship with his friend. It seems that such stories of ghost ships were common among the sailors and at the time of difficulty gave them courage.

Some people travelled for its own sake and not for trade. It is mentioned in the Samudda-vaṇija Jātaka<sup>92</sup> that some carpenters took advance money from some people for making furniture, but they were unable to finish their work in time. At this delay their purchasers gave them much trouble and becoming very much dejected they decided to migrate to a foreign country. They built a big ship, boarded it and sailing with favourable wind the ship reached an island covered with trees and plants, rice and sugarcane fields and it also grew plantains, mangoes, jamun, jack fruits, coconuts, etc. Even before their arrival a passenger from another shipwreck was passing his time happily there and used to sing with pleasure, "I do not care for those who earn their living by hard and sweated labour, by sowing and ploughing the fields. It is not necessary in my domain. India? No. This place is much better than India." At first the carpenters took him to be a spirit but later on he gave them his account and praised the produce of the island.

In the stories given above there is a happy combination of realism and miraculous elements. In those ancient days people lacked the sense of scientific investigation
and, therefore, whenever they found themselves in trouble, then, instead of investigating its cause, they thought it to be due to the displeasure of the gods. But
in spite of miraculous elements there is no doubt that sea stories in the Buddhist
literature were based on actual happenings. We know for certain that the sea
merchants facing many difficulties and disasters carried on commerce with foreign
countries. Their small ships were unable to withstand the lashings of the storm
which resulted in shipwrecks and most of the travellers had to lose their lives.
Some of them who escaped death, were rescued by other ships. The submarine

rocks proved a great danger to ships. The success of the sea voyages depended mostly on the skill of the crew and captain. They were expert sailors fully acquainted with all aspects of their profession. They also knew about the fishes and turtles of the sea and different kinds of winds. They were also fully acquainted with trade practices and they often advised merchants about their problems.

#### V

We have seen above that the main purpose of travel by sea and land routes was commerce. Unfortunately, there is little information available from the Buddhist literature about the organisation of the caravan and the types of goods which were bought and the types of goods which were sold. Perhaps these goods included cotton, woollen and silk textiles, and also ivory, precious stones, etc. In the Sabhāparvan of the Mahābhārata the produces of the different parts of India are mentioned and naturally these very articles must have been included in commercial transactions. It is difficult to ascertain the date of this part of the Mahābhārata, but on the strength of internal evidences this must have been compiled in the second century A.D., though the geographical and economic conditions mentioned in it may even predate the second century B.C.

It is evident from the Jatakas that it was essential for merchants and artisans to organise themselves into guilds. These guilds must have been organised in very ancient times, based on economic, social and political conditions. In the smritis we see the beginning of guilds; in the Jātakas we find the same state of the guilds which later on became distinguished for their organisation, legal standing and powerful office bearers.

It is evident from the Jātakas that guilds were not of permanent but temporary nature, though hereditary rights and the appointment of the head were its chief privileges. Pedlars and very ordinary merchants carried on their profession all alone. They were not required to follow a common policy, but big merchants had to organise themselves to carry on their professions and in order to safeguard their interests guilds were formed.

In the Jātaka stories we always find the mention of caravan organising five hundred wagons which is of course a conventional manner. It is evident from the office of the Sārthavāha that it presupposed a certain kind of organisation. His office was also hereditary. He distance and difficulties of the routes compelled merchants that they should have a leader (jetthaka) to lead them on. It means that merchants took his orders about encampments, precautions against sea-pirates, passages full of dangers, river ferries, etc. But in spite of this it was not a proper organisation with its own rules and regulations. The great turmoil among the merchants for the cargo after the ship reached the port does not show any degree of co-operation.

There does not seem to have existed any agreement between the sea-faring merchants except that they hired a ship in groups. Even this small degree of co-operation indicates the sambhūya-samutthāna of the Dharmašāstras and Kautilya.\*\*

It is mentioned in one of the Jātakas 97 that two merchants had entered into a partnership for carrying trade with five hundred wagons. In another Jātaka 98 partnership between several merchants is mentioned. The horse merchants from Uttarāpatha also carried on their business in partnership. It is possible that even this limited degree of co-operation was to prevent unhealthy competition and to realise proper prices.

There is no mention of agreement between merchants but according to the Kūta-vanija Jātaka99 partners had some kind of agreement between themselves. This Jaiaka mentions a quarrel between two partners, one intelligent and the other very intelligent. The very intelligent chap wanted to keep his profit in the partnership in proportion to one to two, though both partners had invested equal amount in the business. But the intelligent partner did not agree to this and the more intelligent chap was forced to agree to his terms. In this age the head of merchants was known as sreshthi. He occupied the same place in the city as the Nagaraseth in the Mughal period. He commanded equal respect in the king's court and outside. He was the representative of merchants, and it is evident from many Jatakas 100 that his post was hereditary. As his post was recognised by the state he attended the king's court daily.101 If he decided to become a monk or distribute his wealth then he had to obtain the permission of the ruler. In spite of all these checks, his position in the merchant community was much higher than in the court. Merchants were very wealthy and possessed slaves, houses and herds of cattle.102 The assistant to the ireshthi was anusetthi. 102

The Jataka stories do not give any idea about the articles of import and export though we could guess about their nature. Cotton textiles formed a very important article in external and internal trade. Varanasios was very famous for its silk and the merchans of Banaras dealt in this commodity. The Jatakas also praise the red blankets of Gandhara,105 Uddiyana106 and Sivi107 which produced very precious shawls. The Pathankot region manufactured a variety of woollen cloth known as Kotumbara 108 while the Panjab and contiguous regions were famous for fine woollen goods. Kāśī was famous for its cotton textile as well. The varieties of cotton cloth from Kāšī were known as Kāšīkuttama100 and Kāšīya. 110 The muslin of Banaras was so fine that it could not absorb oil. The body of the Buddha was shrouded in this cloth.111 Banaras also manufactured linen.112 Its needlework was also famous.113 We do not know whether textile was imported in this country or not. In this connection we want to draw the attention of scholars to the word gonaka, us appearing in the Buddhist literature. Here it is explained as a kind of carpet manufactured from the long haired goat-skin. However, it is possible that this word is of Iranian origin.

In ancient Sumer the word kaunkes was used for a kilt. This article of wear was made in Ecbatna. It is possible that this kaunkes came by land route to India. In the same way it is also possible that kojava which was a kind of blanket came from Central Asia because it is mentioned several times in the Saka documents of Central Asia.

Sandalwood occupied an important place in the external and internal trade of India. Vārāṇasī was famous for its sandalwood, 116 and there was a great demand for sandalwood powder and oil. 117 Again tagara and kaliya wood also occupied important place in the commerce. 118

From Sri Lanka and other countries came sapphire, jasper, sunstone, moonstone, ruby, crystal, diamond and amethyst. 119 There was a great demand for Indian ivory as well.

As we have observed above the Mahabharata throws important light on contemporary trade and commerce. At the time of the Rajasuya sacrifice many kings and republics sent their representatives with the products of their countries to present them to Yudhisthira.

According to the Mahābhārata from the islands of the south sea came sandal-wood, agallochum, precious stones, pearls, silver, gold, diamond and coral. In these articles perhaps sandalwood, agallochum, gold and silver came from Burma and Indonesia. Pearls and precious stones came from Sri Lanka and coral from the Mediterranean, Borneo perhaps supplied diamond.

In his conquests of the northern region, Arjuna received from Haţaka<sup>12</sup> (Western Tibet) and from Rishikas (Yūechi)<sup>122</sup> and from Uttarakuru hides and furs. It is evident from the mention of these articles that in the trade of the northern regions horses, hides and furs formed important articles.

Kamboja (Tajikistan) was famous for its swift horses, 128 camels, 124 golden cloths, pashminas, furs and hides. 125

Kapiśa or the region about Kabul exported good wine, and from Baluchistan<sup>126</sup> came goats of good breed, camels, mules, fruit wines and shawls.<sup>127</sup>

The inhabitants of Herat exported to India the Harahura wines<sup>128</sup> and the Ramathas of Kharan region exported asafoetida. The people of Swat bred good mules<sup>129</sup> and from Balkh and China came woollen and silk clothes, pashminas, and felts.<sup>130</sup> From north-western frontier came good weapons, musk, and wine.<sup>131</sup>

The gold brought by the Khasas and Tanganas from Central Asia occupied an important place in the commerce. The Pipilikas who brought gold have not yet been properly identified, but perhaps they were of Mongolian or Tibetan origin. Assam in eastern India sent horses, jade and ivory handles. Jade perhaps came

from upper Burma. Magadha manufactured inlaid furniture, beds, chariots and other vehicles, elephant carpets and arrow heads.<sup>131</sup> The Kirātas of Indo-Burmese origin brought from the eastern frontier region gold, agallochum, precious stones, sandalwood and other aromatics.<sup>135</sup> They also dealt in slaves, precious birds and animals. Bengal and Orissa were famous for fine cotton cloth and elephants.<sup>136</sup>

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#### CHAPTER IV

# TRAVELLERS AND CONQUERORS ON THE GRAND ROUTE OF INDIA IN THE MAURYAN PERIOD

FROM THE fourth century B.C. to the first century B.C. the Grand Route of India witnessed many changes. The chief event of the fourth century B.C. was the development and organisation of the Mauryan empire of Magadha. The development of this empire began after the conquest of Anga by Bimbisara in about 500 B.C. After him Ajātaśatru extended his sway on Kāśi, Kośala and Videha. The Mauryan empire had grown to such an extent that its capital was removed from Rājagriha to Pāṭaliputra on the confluence of the Sone and Ganga as this town was of great military importance. The Nandas had perhaps occupied Kalinga but Chandragupta Maurya extended his empire to the north-west of the Indian subcontinent. It is, however, a historical fact that Aśoka conquered Kalinga. In the second century B.C. the Indo-Greeks led a military expedition against Pāṭaliputra. After them the Scythians and the Parthians entered India through the Grand Route.

It is important to remember in connection with the campaigns of Alexander against India that owing to the tribal rebellions in the fifth century B.C. the eastern frontier of the Achaemenian empire had become very much contracted and the republics in Sindh and the Panjab had gained their independence. The statement of Strabo that the frontier of India and Iran was on the Sindh river is not correct, because according to Arrian the Iranian Kshatrapas had no control beyond Laghman and Nagarahara.1 Foucher is of the opinion that the statement of the companions of Alexander that he proceeded beyond the Indus is purposefully incorrect. In his opinion in the spring of 326 B.C., when Alexander reached Taxila he had conquered most of the Achaemenian empire. The revolt of the Macedonian soldiers on the Beas river according to Foucher was due to the fact that after conquering the Achaemenian empire they did not want to proceed beyond. Alexander's decision to march back by the Indus informs us that some part of the Achaemenian empire had yet remained to be conquered. In the spring of 325 B.C., when Alexander reached the confluence of the Indus with other rivers of the Panjab, then according to the Behistun inscription he had reconquered Gandhara.2 The land extending to the confluence of the Akesines with other rivers when it was put under the control of the Kshatrapas then Hindu-Sindhu-Sind province of Darius was re-established.3

One is tempted to accept the above opinion but unfortunately it lacks historicity. There is absolutely no proof that the Achaemenians had reached the Beas river. On the evidence of the Purāṇas, it may be said that the Mlechchhas were confined to the west of the Indus only. Arrian also supports this view. However, there may be truth in the statement that Alexander by his conquests was trying to re-establish the Achaemenian Satrapies. The paucity of the Achaemenian remains in Sindh and the Panjab proves that the rule of Darius I only lasted for some time after the conquest of the region.

Alexander started the chain of his conquest after taking Khorasan in the beginning of 330 B.C. History tells us how Darius III fled and how Alexander pursued him. During his compaign he laid foundation of two Alexandrias, one in Aria and the second in Drangiane. After reaching Arakhosia he laid the foundation of the third Alexandria and he founded the fourth Alexandria after crossing the Hindukush. It is evident from these events that he traversed the whole mountain system of Afghanistan and with that he fortified all the routes as well.

The tribes inhabiting Herat in the time of Alexander were different than those living in the time of Herodotus. According to Arrian the Sargatians lived in the marshes of the Helmand. The Ariaspioi lived in Seistan. Whatever might have been the situation, Alexander was not troubled by the people of Kandhar. From their country Alexander took the northern route which has not yet been explored. This route was inhabited by barbaric tribes who are termed as Indians by Arrian. According to Foucher they may be identified with the Sattagydai or the Hazaras of modern time.

It is difficult to determine the stages of the route taken by Alexander. We know that the modern route between Kabul and Herat passes through Ghazni, Kandhar and Farah but it is difficult to say whether Alexander also passed through those stages. The Alexandrias of Arthakoana and Aria must have been situated somewhere near Herat. But the ancient capital of Drangine was situated in the south towards Zarang. This indicates that the ancient route did not cross the Helmand river at Girishk but at Bestai of Pliny, the Bust of the Arabs and now Galebist which is situated above Helmand and Aragandab. From here began Arakhosia and the lower valleys of the Helmand and its tributaries were included within its boundaries. Its ancient capital and Alexandria were perhaps situated on the right bank of the Helmand though modern Gandar is situated on its left bank, from where during the Islamic period the grand route started from Kabul. But according to Hsūan Tsang the route between Arakhosia and Kapiśa followed the course of the Aragandab. The archaeological remains at Jagur support this. Owing to many geographical impediments this route was abandoned.

It could be surmised here that in order to traverse the central mountain range of Afghanistan Alexander returned towards the east. Then reaching the so-called Caucasus, he laid the foundation of another Alexandria which was perhaps situated at Parvan, where later on he created an army base for carrying on his campaign against Balkh and India.

He began his Indian campaigns in the Spring of 329 B.C. He could not take the Bamvan route as the enemy had destroyed all his supplies and, therefore, he took the Khawak route. It is possible that leaving aside the Panjashir valley route he took the shorter route of Salang and Kaoshan. Whatever might have been the case, it was necessary to reach the interior by either of the routes. From here Alexander took the north-western route and passing Haibak he reached Khulm, from where passing Tashkhurghan he reached Balkh. But there is a track in the south of Mazar-e-sharif which entering the land of the Khulm river reaches Balkh. Perhaps Alexander took this route. We know that after reaching Adrasp by the Balkh route Alexander conquered Aornos which probably means natural fortification.5 This place could be identified with Kafirkila in Balkh. It is very well known that Alexander reached Balkh without any serious battle; from there he was forced to proceed towards the Oxus. After two years, in the spring of 327 B.C. he led a campaign against Sogdiana after which he returned to Balkh. After reducing it completely he proceeded towards India and after many forced marches he crossed the Hindukush through the Bamyan pass.

Arrian informs us that from the Alexandria on Caucasus, Alexander proceeded to the eastern boundary of the *Uparisayena* province. Here following the Grand Route he reached Lampaka (Laghman). Here he stayed for some days and met the king of Taxila and other princes. Alexander divided his army here into four unequal sectors. One sector he sent in the hilly regions on the northern bank of the Kabul river. The greater part of the main army, under the command of Perdikkas, passing through the right bank of Kabul river proceeded to Pushkarāvatī and the Indus river. At that time Alexander offered a sacrifice to the goddess Athene and laid the foundation of the city of Nikia whose ruins should be sought on the route separating Mandrawar and Charbag.

The first sector of the army crossing the northern bank of the Kabul river joined by another sector, attacked a fort where king Hasti tried in vain to oppose him. Here between the network of the Kabul and Landai rivers there is a place named Prang where in the mounds of Charasada are hidden the remains of the ancient Pushkarāvatī. It took Alexander some months to reduce this city. Alexander after joining his army included a part of Parauparisayena (Iranian Gandhāra between Laghman and the Indus) with Pushkarāvatī and thus created a new Satrapy. From here following the Grand Route he reached the Indus, but owing to some reason he did not cross it at Udabhānda and ordered his commanders to build a bridge, but owing to the spring floods such a bridge could not be built. When all this was happening Alexander was fighting incessant wars with the tribes hiding in Aornos.

For doing this he had to proceed to Buner. Within this interval the commander of Alexander built a bridge between Und and Amb. From here Taxila lay at three marches.

Alexander had to fight bloody battles with the tribes of Uddiyana (Kunar,

Swat and Buner) and it took him almost a year to subdue them but after crossing Kunar he attacked vigorously the Aśvakas (Aspasii) of Bajaur, the Gouriane of the Panjakora and Assakensi of Swat. There are two places famous in the battles of Alexander. One is Nicaea where he imitated the deeds of Dionysus and second is Aornos where he even surpassed the deeds of Heracles. Many scholars have tried to identify Aornos. Sir Aurel Stein, however, regards it as the great rock which separates Swat from the Indus.

After crossing the Indus Alexander reached Taxila where Ambhi welcomed him. He held his court there but to the east of the Jhelum. Porus well aware of his impending doom made preparations to face the army of Alexander. Accepting his challenge Alexander marched forward to cross the Jhelum with his army. In the spring of 326 B.C. the army of king Porus assembled near the modern city of Jhelum. The flotilla of Alexander, however, attacked the week points of the army of Porus. In the last battle Porus was defeated, but Alexander pleased by his bravery handed him back his kingdom. After defeating the army of Porus, Alexander marched forward on the Grand Route. The Galuchakayanas of the Chenab and the ruler of Abisares (Abhisara) accepted his suzerainty. After that he proceeded towards the Ravi and conquering the territory between the Chenab and Ravi handed it over to his friend Porus. In this progress the Macedonian army marched along the foot-hills of the Himalayas. The Adrishtas living in the east of the Ravi submitted, but the Kathians gave him a battle. Below a low hill they arranged their army in wagon formation (sakata-vyūña). This formation was made by three rows of wagons which encircling the hill on three sides protected the encampment.7 But in spite of all these strategies they were defeated. Subhuti, the ruler of Saubha, or the country around Amritsar submitted to Alexander. Then the army marching to the east reached the Beas river. After this point to reach the Ganga Alexander had to cross only the Sutlei. While encamping on the Beas Alexander heard about the power of the Magadha empire from the ruler of Bhagala and he thought of fighting with it, but in the meanwhile near Gurudaspur his army refused to march forward and finding himself helpless Alexander ordered his army to turn back. Following the Grand Route the army reached the Jhelum but Alexander decided to travel on the Indus river and then take Kandahar-Ghazni route to reach Kabul. The autumn was passed in assembling a flotilla which was put under the command of Nearchus and it was decided to march the army on both banks of the Jhelum in order to safeguard the flanks. After the completion of these arrangements Alexander offered sacrifices to the river Indus. Jhelum and Chenab and his gods, and then ordered his fleet to weigh anchor. According to Arrian8 the Indians wishing success to the fleet ran on both banks of the river singing and dancing. After ten days it reached the confluence of the Jhelum and Chenab where the skin-clad Sibis accepted the authority of Alexander, but going a little down the Kshudraka-Mälavas started a war. In order to defeat them Alexander with his army pursued them and perhaps defeated them near Multan, though in this war he had practically lost his life.

After defeating the Kshudraka-Mālavas the Macedonian fleet and the army

marched forward. On the way they met the Ambashtha (Abastane), then Kshatriyas (Xathri) and Vasātis (Ossadoi) were either defeated or subdued through diplomacy. In the end the army reached the confluence of the Chenab and Jhelum. In the beginning of 325 B.C. the fleet cast anchor there. Lower down this confluence was situated the republic of the Brāhmaṇas. Alexander, however, marching forcibly reached the capital of Sogdi and there again laid the foundation of another Alexandria. This territory was perhaps turned by Alexander into the Satrapy of Sindh. The territory between the confluence of the Indus and the Chenab was under the control of the Mūsikas (Musicanos) whose capital was perhaps situated at Abor. Alexander defeated them, after that came the turn of the Śambūkas (Sambos), the enemies of the Mūsikas and they were defeated at their capital Sindiman. The Brāhmaṇas gave a very tough fight to Alexander, and angered at that he ordered their general massacre.

Before reaching Pātāla where the Indus branched out into two currents, Alexander despatched one-third of his army to return to its own country via Kandhar and Seistan, but himself marching forward occupied Pātāla (probably Brahmanabad). After that he decided to explore the western branch of the river, and the fleet after meeting many obstacles from the people of that arid region met the Macedonians on the sea-shore. After worshipping the sea and his manes Alexander returned to Pātāla and ordered the construction of docks and godowns on the river for international trade.

Alexander decided to return to his country via Makran and ordered his fleet to sail from the mouth of the Indus to the Persian Gulf. With his land army he proceeded to the Hab river where he came to know that Arabhatas (Arbitae) for fear of him had fled. After crossing the river he met the Oretai and occupied their capital Rhambakia which could be identified perhaps with the Vairāmakas of the Mahābhārata. After that he entered Geodrosia (Baluchistan). In that region following the sea coast he made arrangements for food and dug deep wells for his fleet. After crossing the terrible deserts Alexander disappeared for ever from the scene of Indian history.

According to the arrangements made previously Nearchus with his fleet was to sail from the eastern mouth of the Indus in October 325 B.C. but for fear of the route he had to cancel his resolve. According to the new arrangements the fleet was brought to the western mouth of the Indus, here as well Nearchus had to face many difficulties. After Alexander's departure, he was forced to weigh anchor of his fleet by the end of September. The fleet starting from Kashtanagar probably reached Karachi and waited there for twenty-five days for favourable wind. Starting from there the fleet reached the mouth of the Hab river. He was opposed by the people at the mouth of the Hingol river. After staying there for five days the fleet crossing Rasohlan passed beyond the frontier of India.

The campaign of Alexander in India was a short lived event in Indian history. Within twenty years of his return Chandragupta Maurya turned his attention

towards the Panjab and as a result the Satrapies of Alexander went to pieces. Not only that, perhaps for the first time in Indian history the Indian army entered east Afghanistan ruled by Seleucus. About 305 B.C. Seleucus travelling through his empire on the Grand Route reached the Indus river and there met Chandragupta Maurya. History does not tell up about the result of that meeting though it mentions that Seleucus was ready to secede a part of the empire to the Mauryas. According to Strabo and Pliny Seleucus seceded to the Mauryas the Satrapies of Arakhosia and some districts of Aria. Foucher is of the opinion that the secession of this mountainous region in exchange for five hundred elephants does not show any magnanimity of Seleucus because he had kept for himself the best part of Aria. The Mauryas and Seleucids had good relations as a result of which Megasthenes acting as an ambassador of Deimachos reached through the Grand Route to Paţaliputra. The occupation by the Mauryas of this part is evident from an inscription of Aśoka in Greek and Aramic (Epigraphica Indica, Vol. 34, Part I, p. 1 ff), found from Kandhar.

But this state of affairs did not last for a long time after the death of Aśoka (about 236 B.C.), the Maurya empire began declining. The Seleucids also met with the same fate. Diodotus proclaimed his independence in Balkh and Arsaces declared independence in Iran. Antiochos, in order to suppress their rebellions, invaded Balkh where Euthydemus locked him up in the fort of Balkh. After laying siege of the city for two years both the parties fearing the nomad invaders made peace. After that Antiochos took journey to India where he met Subhagasena of Arakhosia. This Subhagasena was probably the viceroy of the Mauryas who had declared his independence after their fall.

When such events had taken place on the north-west frontier of the Indian sub-continent, at that time according to the Jain tradition, Samprati, grandson of Aśoka, was increasing his power in the Middle Country, Gujarat, the Deccan and Mysore. The legend says that he made twenty-five and a half kingdoms, easy of access for the Jain monks. In order to increase his power he sent his soldiers under the garb of Jain monks to Andhra, Dravida, Mahārāshṭra, Kudukka (Coorg) and Saurāshṭra. If the tradition is correct then just after Aśoka, Mahārāshṭra, Saurāshṭra and Mysore had separated from the Mauryan empire, and, therefore, Samprati was forced to re-establish his power in those parts by sending his army to Andhra and Tamil Nad. He apparently extended his empire to further south. 12

From the above legend it is apparent that the twenty-five and a half kingdoms of the Jain literature probably indicate the bhuktis or provinces of the Mauryan empire.<sup>44</sup> The following is the list of provinces:

Provinces or Bhuktis

Capitals

Magadha Anga

Rajagriha Champa Vanga Kalinga Kāšī Kosala Kuru Kusattā Pānchāla

Gangala Saurāshţra Videha

Vacchha (Vatsa) Saṇḍilla Malaya

Va (ma) chehha

Varaņā

Dasāņņa (Daśārņa)

Chedi

Sindhu-Sauvira Surasena

Bhangi Purivațță Kunălă

Lata

Kegayiaddha

Tamalitti (Tamralipti)

Kańchanapura Vārāņasī (Banaras)

Saketa

Gayapura or Hastinapura

Soriya Kampillapura Ahichhattä

Baravai (Dwarka) Mihila (Mithila)

Kosambi Nandipura Bhaddilapura Verada Achchha

Mattivavai (Mrittikävati)

Suttivai

Biyabhaya (Vitibhaya) Mahura (Mathura)

Pāvā Māsapurī

Savatthi (Śrāvasti) Kodivarisa (Kotivarsha)

Seiviva

It is apparent from the above list that during the Maurya period many of the older cities had disappeared and were replaced by new cities. The name of Kapilavastu does not appear in this list. It is also difficult to say why in the place of Paţaliputra the Mauryan capital, the name of the old capital Rajagriha appears. It may be due to the fact that even in the Mauryan empire the political and religious importance of Rajagriha continued.

The capital of Anga at Champa remained but the capital of Vanga at Tamralipti shows that it became a very important city as the Grand Route terminated there and its port became important because of its international trade. Kanchanapura, the capital of Kalinga, conquered by Asoka, cannot be identified but it was a port which had trade relations with Sri Lanka. It is also possible that by Kanchanapura may be meant Dantapura the capital of Kalinga, which is called Palour by Ptolemy which according to Professor Levi is only a Tamil equivalent of Dantapura. Varanasi continued to be the capital of Kasi. It seems that the ancient Kosala was divided into three provinces. The capital of the main Kosala was Saketa, the capital of Kunala (perhaps Gonda) was śravasti and Nandipura was the capital of Sandilla (perhaps Sandila near Lucknow). The capital of Kurudesa remained as previously at Hastinapura. The capital of Kusavartta or Kanyakubja was Soriya, the modern Soron. The capital of Dakshinapanchala was Kampillapura or modern Kampil and the capital of northern Panchala was

Ahichhattra near Ramnagar in Bareilly district, Uttar Pradesh.

The ancient capital of Saurāshtra was Dvārāvatī or Dwarka and it retained its position. The capital of Videha was Mithilā now Janakpur in Nepal territory. Vaišālt is not mentioned. Kaušāmbī, the capital of the Vatsas, maintained its position as in former days. The capital of the Matsyas was Verāda which is identified with Bairat in Jaipur district of Rajasthan from where an epigraph of Ašoka has been found. The capital of Varaņā or modern Bulandshahar is named as Achchhā which cannot be identified. The capital of Dašārņa (Mandsora) in eastern Malwa was Mrittikāvatī. It is not understandable why Ujjain the capital of western Malwa is not mentioned. The Chedis of Bundelkhand had their capital Suktimatī perhaps somewhere in Banda district, U.P. The capital of Sindhu-Sovīra was Vītibhayapatţana perhaps Bhera. Mathurā was the capital of the Śūrasena country. The capital of Bhargadeśa (Hazaribag and Manbhum districts in Bihar) was Pāvā and the capital of Lāṭadeśa (Hooghly, Howrah, Burdwan and the easten part of Midnapur) was Koṭivarsha. The capital of Kegayiaḍdha was perhaps situated in the middle of Śrāvastī and Kapilavastu near Nepalganj.

From the account of these capitals in the Mauryan period it is apparent that the Grand Route took the same direction as in the time of the Buddha. On the Grand Route passing to the north of Kurukshetra was situated Hastinapura, Ahichhatra, Kuṇālā, Setavyā, Śravastı, Mithilā, Champā and Tamralipti; on the southern Grand Route in the Gangetic valley appear Mathurā, Kampilla, Soreyya, Sāketa, Kosāmbī and Vārāṇasī. The names of other capital cities intimate the routes of Malwa, Rajasthan, the Panjab and Saurashtra.

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We have surveyed above the history of the routes in the Mauryan period. Fortunately the Arthaiastra of Kautilya throws some additional light on the land routes and sea routes which are not mentioned anywhere else. The Arthaiastra is explicit on the point that the success of internal and external trade depended mostly on the cleverness of masters of the caravans but even they were not allowed to do whatever they liked. The state had enacted certain rules and regulations for them which if transgressed they were punished.

For the success of external and internal trade it was necessary to have good roads and government officers to regulate the movement on them. The chariot routes (rathyā), routes leading to ports (dronamukha), roads leading to the capitals of the provinces (sthānīya), the roads leading to the neighbouring states (rāshtra) and the roads leading to the grazing grounds (vivītapatha) were four dandas or twenty-four feet wide. Sayonīa? roads leading to the military camps (vyūha), and roads proceeding to cemetries and villages were eight dandas or forty-eight feet wide. The roads leading to the dykes and forests were twenty-four feet wide. The roads leading to the reserve forests for elephants were twelve feet wide. The chariot roads were seven and a half feet wide, but the animal tracks were merely three feet wide.

The Arthasastra also informs us that forts were provided with many roads and alleys. Before forts were built roads from north to the south and from east to the west were properly planned.

The Arthaiastra at one place compares the relative importance of land routes and sea routes.17 Quoting ancient authorities Kautilya observes that according to them the sea and river routes were better than the land routes because the cost was lesser for transporting the goods and, therefore, they yielded more profit. Kautilya, however, did not agree with this opinion. According to him the waterways were not firm and were full of difficulties and dangers. In their comparison the land routes were simpler. Pointing out to the dangers of the sea routes Kautilya observes that the open sea routes were more difficult than the coastal routes because on the coastal routes there were situated ports where goods could be easily bought and sold (panyapattana). In the same order the river routes in comparison with sea routes were much easier and if any difficulty arose they could be easily got rid of. According to the ancient authorities the Haimavatamarga on the Grand Route from Balkh to India via Hindukush was easier than the southern route from Kausambi to Ujjain and Pratishthana. But Kautilya does not agree with this opinion because according to him the Haimavatamarga was only used for trade in horses, woollen cloths, hides and furs, to the exclusion of all other goods. On the contrary on the Dakshinapatha or the Deccan route trade in chankshell, diamond, precious stones, pearls and gold was carried on. Even in this route, that section was considered to be the best which proceeded to mining districts and was constantly used by merchants. This route was also less dangerous and less costly and, therefore, merchants always used it because here they could easily buy goods. While comparing the relative values of bullock-cart route (chakrapatha) and tracks (padapatha) he considers the bullock-cart route better because this road could carry heavy loads easily. In the end Kautilya reaches the conclusion that for all countries and for all seasons those roads were better which could be easily used by camels and donkeys.

From the above discussion about the comparative importance of various types of routes in this country it is apparent that there were roads between Balkh and Pataliputra which carried on most of the trade of the country. Perhaps being an orthodox Brahman Kautilya did not prefer sea voyage. But keeping in mind the contents of the Arthaiāstra he does not mention religious sanctions against the sea voyage but only points out the dangers of the sea voyage.

The Grecian authorities have also given some information about the ancient routes of northern India. Megasthenes, the Greek Ambassador to the court of Chandragupta, has mentioned about these routes in some places in his travel account. At one place he points out that Indians were expert road-makers. After the roads were ready they put milestones at the interval of two miles in order to ascertain the distance and point out the direction of the branch routes. At another place he says that an account was kept about the stages of the routes. Arrangements were made on the roads for the comfort of the travellers. It is

mentioned in one of the inscriptions of Asoka that he had dug wells and planted trees on the roads for the comfort of the travellers. 200

In the city of Pataliputra in the six boards for the management of the city, the second board looked after the reception of the foreign travellers. It made arrangements for their stay and employed the servants of those foreigners to inform it about the character and behaviour of their masters. When they left the country then the board made arrangements to see them off. Unfortunately, if one of them died then it made arrangement to send his effects to his relatives. Proper medical arrangements were made to look after the travellers who fell ill and perchance if they died then they were cremated at the expense of the state.<sup>21</sup>

Now the question arises that in the Mauryan period what were the countries with which India had commercial and cultural relations. We already know that there were trade relations between Balkh and Pataliputra. Other routes also joined Pataliputra with provincial capitals and ports. Indian ports were also great centres for international trade. Tamralipti on the eastern sea coast and Bharukachchha on the western sea coast carried on trade with Sri Lanka and Suvarnabhumi. We do not know how far Indian ships travelled in the Persian Gulf, but there is every possibility that India had trade relations with Babylonia. The Arthasastra gives alasandaka as one of the names for coral which probably came from Alexandria in Egypt, though it is also probable that this word has entered the Arthasastra at a later date probably in the early centuries of the Christian era. But there is little doubt that Indians had full knowledge of the ports on the Red Sea. Though on account of the Arab merchants who controlled all trade and commerce of the region they did not frequently sail to those ports.32 In this connection Strabo also mentions a strange incident which happened just after the Maurya period. According to him in the time of Ptolemy Euergetes II. the ruler of Egypt, a citizen of Cyzicus named Eudoxus undertook a voyage for the exploration of the Nile. At that very time the guards looking after the coast of the Persian Gulf, brought before the king an Indian sailor whom they had found on a ship in half dead condition. They could not say anything about him or his country as he could not speak any other language but his own. The king was attracted towards that sailor and made arrangements to teach him Greek. After he had progressed in Greek, he informed the king that the ship had started from the Indian sea coast and missing the direction had sailed towards Egypt, All his comrades had died of hunger. On the condition that the king allowed him to return to his country he promised to show the Greeks the way to India. The party which was sent from Egypt to India included Eudoxus of Cyzicus who sailed to Demetria or Barygaza. After some time after completing their voyage successfully the party returned with precious stones and aromatics to Egypt.

It is evident from the study of the Arthasāstra and that the state fully realised the importance of sea routes and to manage them properly it appointed the Superintendent of Shipping (naukādhyaksha) who was in charge of ocean going ships (samudrasamyāna) and boats sailing on rivers and their mouths, lakes etc.

Before sailing from the ports, the traveller had to pay the taxes to the state. The travellers sailing on the ships owned by the state had to pay certain charges (yatra-vetana). Those who used state owned ships for fishing chankshells and pearls had also to pay a tax (nāvkātaka). If they did not pay this tax then they were free to use their own boats. The Superintendent of Shipping carried out strictly the rules (harita) framed for the management of the ports (panyapattana) and supervise the work of the officers employed in the ports. If a ship buffeted by adverse wind arrived in a dilapidated condition (mudhavarahata) then it was the duty of the Superintendent of Shipping to show a paternal attitude towards the travellers and sailors. No customs duty was levied on the goods destroyed by sea water and even if it was levied it was half of the regular amount. It was also borne in mind that after repairs such ships would start their voyage in favourable season. The ships which touched the ports on the coastal region, had also to pay the duties. The Superintendent of Shipping was empowered to destroy the pirate ships (himsrika), and also those ships which refused to accept the rules and regulations of the ports.

Distinguished merchants and those foreign travellers who came to this country for trade were allowed to disembark without any trouble by the Superintendent of Shipping, but those suspects who were accused of abducting women, robbers, men who appeared frightened and puzzled, travellers without luggage, the neosanyāsīs travelling under assumed garbs, travellers feigning illness, carriers of precious goods without informing the authorities and poisons without declaration, and those travelling without passport (mudrā) were put under arrest.

Both in the summer and in winter in big rivers many boats were put under the command of a captain (śāsaka), a pilot (niryāmaka), oarsmen (raśmigrāhaka) and the balers (utsechaka). In the rivers swollen with flood only small boats plied.

The use of ferry without permission was considered a crime and people doing so were fined. A charge was made for the use of ferry boats from fishermen, gardeners, grass cutters, herdsmen, postmen, suppliers of goods for the military, fruit sellers, and the carriers of seeds etc. Marshy villages and those who used their own boats for going across the rivers had not to pay any kind of fees. The ferry boats did not also charge the Brahmans, wandering monks (parivrājakas), children and old men for ferrying them across the rivers.

From one crossing the rivers out of fixed hours or from the point not fixed for crossing fine was realised. For one who crossed without authority even at the fixed time and at a proper crossing was fined twenty-six panas and three quarters. However, no penalty was charged from fishermen, carriers of loads of wood and grass, attendants of flower gardens, fruit orchards and vegetable gardens, the cowherds, followers of an envoy, suppliers to the military, those who crossed in their own boats, and those who ferried for seeds, food stuffs and supplies for villages situated along the water courses. The Brahmans, wandering monks, children, old and sick persons, carriers of royal edicts and pregnant women were allowed the

facility of the ferry boats if they possessed sealed passports from the Controller of Shipping.

Foreign travellers were granted permission to land after the testimony of the master of caravan. The Controller also had the power to arrest a person carrying off the wife or daughter or the property of another person, a frightened and agitated person, a person hiding behind a heavy load, a person concealing his face by the load containing heavy goods, a wandering monk, one who had put on the mark of one who went without mark, a person who feigned illness, a person showing changed appearance because of fright, a person secretly carrying goods of high value, letters, weapons, and combustible articles, a person with poison secreted in his hand, a person who had travelled a long distance, and a person without a sealed passport.

The following duties have also been ordained. A small animal and a man with a load in a hand were charged a mājaka, a load on the head, a load on the back, a cow and a horse were charged two mājakas, a camel and a buffalo four mājakas, a small vehicle had to pay five mājakas, a bullock cart had to pay six mājakas, a cart seven mājakas and a load of commodities one quarter of a paņa. These were the charges made in ordinary course. The fees for ferries on big rivers was double the amount mentioned. Further steps were taken for the maintenance of the ferrymen. The villages situated on waterways had to pay a fixed amount of food and wages to them. At the frontier the ferrymen were expected to realise the duties, export charges and road cess and were also authorised to confiscate the goods of one travelling without the passport, a person crossing with heavy load at an improper time and at a point which was not authorised.

The Superintendent of Shipping was also entrusted with other duties. If a boat, because it lacked proper personnel and equipment or was not seaworthy, came to grief then he was authorised to make good of what was lost or ruined.

Strict measures were taken to maintain the accounts of the ferrymen. They were expected to give account of their daily earnings.

Right up from the Mauryan period to the Mughal period nobody could travel without a passport (mudra). The passport was issued by the Superintendent of Passports (Mudradhyaksha). He realised a fee of one māšaka for issuing the passport. Only a person with a sealed passport was authorised to enter or leave the countryside. A native of the country who travelled without a passport had to pay a fine of twelve paṇas. For using a forged passport the lowest fine for violence was imposed but if a person was a foreigner then the highest fine was imposed upon him. This passport was valid on land and sea routes. The Superintendent of Meadows (vivītādhyaksha) examined passports in the way. Such inspection houses were situated on such points on the road through which a traveller was forced to pass. His duty was also to reconnoitre the pastures and make arrangements for protecting travellers from robbers and wild animals. In arid regions he dug wells, built bunds,

made arrangements for shelters and the lay out of gardens,

As protective measures in the forests, dogs and hunters were employed. As soon as they received the intelligence of the approach of enemy or robbers, they hid themselves behind the trees or hills in order to avoid the knowledge of their presence. From here either by the beat of the drums or blowing of the chankshells they warned the people about the impending trouble. If they found that the enemy was on the march then they tied a sealed message in the neck of a homing pigeon and sent it to the proper authorities; by burning fire at regular intervals they issued warning about the presence of the enemy. Besides these precautions the Superintendent of Passports also protected the forests and elephant reserves, 25 repaired the roads, arrested thieves, protected merchants and cows and looked after business transactions between the caravans.

In the Mauryan period on account of properous trade and commerce, the state realised a good amount of customs duties and the Collector of Customs and Tolls realised them with strictness. There were customs houses with their own flags situated in the northern and eastern gateways of a city. As soon as merchants reached there, four or five officers inquired about their names, addresses, the weights and kinds of their merchandise and the places where their passports were stamped first and other relevant matters. If the goods were not properly sealed and if the seals were forged then the duty was eight times as a penalty. If the seals were found broken or effaced merchants were imprisoned for twenty-four hours, if the state seal or personnel seals were changed then the merchants were fined one and a quarter per load.

After these verifications merchants put their goods near the flag of the customs house, and after declaring their amount and prices they announced their intention to sell them. If the prices rose above the fixed prices then the duty on the increased prices went to the king's treasury. If for fear of heavy duties the goods were under-invoiced and if that was found out, then the merchants had to pay the penalty eight times as much as the original duty. The same amount of penalty was realised in the case where the amount of goods found to be lesser in quantity or precious goods declared as ordinary goods after hiding it in the folds of inferior goods. If a higher price was demanded then the increased amount was taken by the State, or the merchant was fined eight times of the ordinary duty. If the Superintendent did not examine the goods himself and the figures were not tallied properly then he was himself fined three times the amount of the unrealised duty. The goods used for weddings and other religious festivals were duty free. Those who carried stolen goods or more goods than declared or after breaking the seals put in more goods in the bales, if they were detected then their goods were not only confiscated but also they were very heavily fined.

If a person tried to carry on trade in prohibited articles such as weapons, metals, chariots, precious stones, grains and animals then his goods were confiscat-

ed and auctioned publicly. It seems that the trade in these articles was a state monopoly and, therefore, their trade by private parties was strictly prohibited.

Besides, the customs duty, merchants had to pay many tolls and cesses. The warden of the marches (antahpala) realised a toll of 11 panas per load. The animals had to pay a cess ranging from } and } panas. In return the warden had to perform certain duties. For instance if the goods of a merchant were looted in his territory then he had to meet his loss. The warden after inspecting the foreign goods sealed them and despatched them to the Superintendent of Customs. A spy in the garb of a merchant determined the quality and quantity of a merchant's goods and despatched the information received to the king. The king to show his omnipresence sent the information to the Superintendent of Customs and who in his turn conveyed it to other merchants. This was done to ensure that a merchant did not make a false declaration. In spite of these precautions if the deceptions were found out then the fine on a merchant was eight times of the regular duty and if the goods were of superior quality then they were confiscated by the state. The import of harmful goods was prohibited, but such articles which were not easily available in the country could be imported without any duty. On all goods such as external (bahva) produce of the districts (antarika), the goods manufactured in cities (atithya) and foreign goods were dutiable both on their import and export.26 On the dried fruits and meat the duty was one-sixth of their prices. The duties were determined on chankshell, diamond, pearl, coral, precious stones, and necklaces, with the opinion of the experts. Duty was also levied on linen, orpiment, manganese, red lead, minerals, colouring materials, sandalwood, agar etc. On linen, dukūla silk yarn, armours, kermes, antimony, vermilion, metals of various kinds and ores, sandalwood, spices, and fermenting materials, hides, ivory, bed-spreads, coverings and silk cloth and animal products of goats and rams, the duty chargeable was 1/10th or 1/15th part of their prices. In the same way the duty on textile materials, fourfooted animals, cotton, aromatics, medicines, wood, bamboos, barks, skins, earthen pots, grain, oil, salt and parboiled rice was 1/20 to 1/25 of their values. Besides these merchants had to pay one-fifth of the customs duty as the gate toll. This, however, could be excused.

In the Mauryan period the Director of Trade (panyadhyaksha)<sup>27</sup> had important functions to perform. He had good relations with merchants. It was his duty to determine the quantity of the material coming through land and waterways and their consumption. Taking into consideration the rise and fall in the prices of the articles, he determined whether they should be sold, bought, distributed, or stored. According to the conditions prevailing in the market, he collected goods, distributed them in far off places and determined their prices. He stored the articles manufactured in the workshops of the king, but he distributed the imported articles in various markets. All these articles were obtainable by the people at fair prices. Merchants were forbidden to make excessive profit. The monopoly in the trade of common goods was strictly forbidden. The Controller of Trade encouraged those importing goods. The loaders on ships, sailors and importers of foreign goods were allowed to go duty free. Foreign traders could not be sued in courts for

their debts, but if they happened to be the members of the guild then they could be dragged to the court.

It seems that the articles manufactured in the ateliers of the king were exported to foreign countries. While ascertaining their prices, profits and expenses, duties, tolls on the roads (vartanīyā), tolls on the vehicles (ativāhika), tolls at military encampments (gulmadeya), ferry charges (taradeya), allowances (bhakta) admissible to merchants and their followers and the cost of the articles to be presented to foreign kings were taken into account.

If in foreign countries the goods did not yield any profit then the Superintendent of Trade had to determine whether there was any possibility of bringing better price by the way of exchange. After determining the rate of exchange one-fourth of the precious goods were despatched to foreign lands by the land route. Togte better profit on the goods, it was the duty of the merchant proceeding to the foreign lands that he should cultivate friendship with forest guards and district officers as it was necessary for the safety of their goods. If he was unable to reach the desired markets then he was authorised to sell the goods in any market without any kind of duties (sarvadeya-visuddha) and to transport his goods by the rivers as well. But before he undertook such a journey he had to take into consideration the transport charges (yānabhāgaka), the road allowances (pathadāna), the price of the foreign goods in exchange of his own goods, the period of the river travel, the customs (charitra), in the market towns (panyapattana), and in the commercial towns situated on the rivers. The merchants inquired about the market rates and then sold their goods because this procedure brought more profit.

In order to determine the quality and quantity of the goods manufactured in the king's ateliers, spies in the garb of merchants were employed. These spies thoroughly inspected the goods produced in the king's ateliers, fields and mines. They also inquired about the duties prevalent in foreign countries, different kinds of tolls on the roads, allowances, ferry charges, the transport rates, etc., in order to ensure that the king was not defrauded by his agents. Such strict precautions taken in the disposal of the king's goods show that the king in the Mauryan period was a clever businessman and it was not so simple to defraud him.

For the stay of travellers in the city, Kauţilya mentions dharmavāsatha<sup>29</sup> or hospice. It was the duty of the managers of such rest houses that they should keep informed the city officers about the merchants and any frauds committed by them. The workers (kārukāra) and artisans were allowed to keep as guests their relatives only in their workshops. Even then they had to inform the city authorities. This precaution was taken so that the merchants could not sell their goods outside the fixed town places and also avoid the sale of prohibited goods.

The merchants of the Mauryan period as well as the travellers were fully aware of their responsibilities. In temples, in cities, on roads, in forests and in cemeteries, wherever they saw the wounded, fully armed, men fatigued by carrying heavy

loads, men sleeping, men unacquainted with the country, it was their duty to hand them over to the state officials.<sup>30</sup>

We have seen that there were guilds even in pre-Buddhist era, but there was only a rudimentary idea of co-operation between them. It is evident from the Arthasastra, however, that in the Mauryan period guilds had become developed institutions and rules were enacted about wages and work. Those who transgressed these rules were heavily punished. There were proper arrangements for borrowing money to run one's own business but the rate of interest was very high. The ordinary rate of interest was 5% but at times it reached even 20%. Merchants travelling through forests had to pay an interest of 10% and sea merchants had to pay a tremendous rate of 20%. It seems that it was the policy of the bankers of that period to fix the rates of interest in accordance with the danger in the transactions involved.

For the welfare of the state bankers the relations between the bankers (dhanika) and debtors (dhāranika) were fixed. Interest on grain could never exceed 50%. On the pledged goods (prakshepa) the interest was half of the profit at the end of the year. Those who transgressed these rules were punished.

People deposited money with bankers. The deposited sum was known as (upanidhi). The interest on the sum was also equivalent to the interest applicable in ordinary business. If merchants lost their goods through the activity of foresters, animals, enemies, flood, fire and shipwrecks then they were not required to pay back their borrowed sums and they could not be sued in the courts.<sup>33</sup>

For the safety of the pledged articles there were many other rules and regulations. Bankers could not sell the pledged goods for their own profit. If they did so they had to pay compensation and they were also fined. But if the bankers found themselves in financial difficulties then a suit could not be filed against them for the recovery of the pledged goods but if they sold pledged goods, lost it, or pledged it with some other banker then they were fined five times of the value of the goods.

If merchants entered into agreement between themselves during the night or stealthily in a forest, then such agreement had no legal validity, but those merchants who passed most of their time in forests their agreements were considered valid.

The members of the guild also could enter into agreement even all alone among themselves.<sup>34</sup> If a merchant despatched his goods through an envoy, then if such goods were looted or the envoy died then the merchant was not entitled to any compensation.

The old or sick merchant while travelling in a forest or undertaking a sea voyage, sealed the goods and entrusted it to another merchant to gain his peace

of mind. If he died then the merchant to whom he had entrusted his sealed goods sent message to his close relatives who in their turn took charge of the sealed goods. If the merchant did not return the sealed goods then he lost his credit and he was punished as a thief and was forced to return the goods entrusted to him.

Merchants had to observe certain rules in buying and selling the goods. If the seller did not deliver the goods sold, then he was fined twelve panas. 36 But if the goods were spoilt between the time of selling and delivery then there was no fine. The manufacturing defect was known as (panyadosha). The sale of the articles confiscated by the king, the goods spoilt by fire or flood, defective articles and goods manufactured by the sick was forbidden.

The delivery time for ordinary merchants was twenty-four hours, for agriculturist three days, for herdsmen five days and for precious goods seven days. For the sale of destructible goods it was enjoined that their salesh ould be effected prior to the sale of the goods which were not easily destructible. Merchants not observing this rule were fined. The sold goods, except if they had some defect, could not be returned.

For the advancement of trade it was necessary to control the artisans and merchants alike. It seems that some guilds of artisans deposited some money with those who wanted their welfare so that they could claim that amount at the time of need. Artisans had to work according to the conditions laid down in their agreements. In case of non-compliance with these conditions one-fourth of their wages were deducted and they were fined to the extent of twice of their wages, but if the artisans found themselves in trouble then such rules were not applicable. If they manufactured additional goods without the permission of the employer even then they were fined.37 Rules were also framed to save the people against the dishonesties practised by merchants. 33 The Superintendent of Trade only allowed to sell old goods after thorough inspection. Merchants were also fined for not keeping proper measurements and weights. They were also heavily punished if they pledged bad articles for good ones or if they changed the goods. Those merchants who, for their profit, underpriced the goods brought by artisans or created obstacles in their sale, were equally punished. Those merchants forming a party created obstacles in the transaction of goods or asked for more price than the fixed price, they all received punishment from the state.

The rate of brokerage was fixed after the goods sold were inspected. Brokers were punished if they tried to deceive buyers and sellers.

If the goods could not be sold at the prices fixed then the Superintendent of Trade was authorised to alter those prices. If the consumption of the goods was restrained even then the prices could be changed. If the supply was above the demand then in order to stop competition among merchants the Superintendent of Trade made arrangements to sell the goods at one place. The price of merchandise was fixed after determining the expenses.

### THE GRAPD ROUTE OF INDIA IN THE MAURYAN PERIOD

In the time of danger to the state, the king imposed fresh taxes most of which were borne by merchants. Bullion merchants selling gold and silver, jewellers dealing in diamond, pearls and corals and merchants selling elephants and horses had to pay a tax of five hundred paṇas each. Merchants selling yarn, cloths, metals, sandalwood and wines had to pay four hundred paṇas each. Merchants dealing in gram, oil, iron and vehicles had to pay three hundred paṇas each. Dealers in glass and first rate artisans had to pay a tax of hundred paṇas each. But the hand of the state fell very heavily on prostitutes and acrobats who had to part with half of their income. But the greatest sufferers were goldsmiths. Taking them to be biggest blackmarketeers their whole property was confiscated by the state.<sup>39</sup>

The above taxes were of course legal but in order to fill his treasury the king often forcibly exacted taxes by illegal means. Often he appointed his own spy in the garb of a merchant as a partner of some merchant. After amassing fortune that spy spread the rumour that he was looted and thus managed to carry all the accumulated profit to the king. At times the spy declared himself as a rich merchant, received gold, silver and precious goods from others, then under some pretence decamped with the goods. The king made his spies in the garb of merchants to do many dirty works. Before marching his army, he despatched them to the camp. There they managed to sell the king's goods amounting to the double of what was required and promised to realise the price later on and in this way the king was able to dispose of his own accumulated goods.

The above account gives a clear picture of the state of trade and commerce in the Mauryan period. Trade was not only in the hand of the merchant community but the king equally shared the profits. It was the duty of the state officials to see that greatest amount of profit accrued to the ruler. Horses, elephants, hides, furs, clothes, aromatics, wood and precious stones were the chief articles of trade in that period.

The Arthasastra gives a long list of hides and furs. These hides and furs came from North-Western India, eastern Afghanistan and Central Asia. Most of the trade names for those articles have been derived from their places of origin, which are difficult to identify. Kāntānāvaka and Āroha (Roha near Kabul), Balkh and China were the chief sources of hides and furs.

Many of the woven and embroidered shawls came from Kashmir and the Panjab. Nepal supplied woollen goods.

Bengal, Paundra (northern Bengal) and Suvarnakudyā were famous for dakūla and Kāśī and Paundra for linen. Magadha, Paundra, and Suvarnabhūmi supplied a kind of wild silk textile. The chief centres of the cotton goods were Mathurā, Kāśī, Aparānta (Konkan), Kalinga (Orissa), Bengal, Vamśa (Kauśāmbī) and Māhishmatī (Mahesar near Khandwa).<sup>42</sup>

It is also evident from the Arthaiastra that there was a very vigorous trade

in precious stones. Many precious and semi-precious stones came from different parts of India, but some came from foreign countries. From Sri Lanka, the Pandya country, the Persian Gulf, Pasha (probably Iran), Kula and Churna (probably near Muruchipattana) and from the Gulf of Manar, and the sea shore of Somaliland came pearls. From the mention of Muchiri it is clear that the old port of Muchiri on Kerala coast was also famous for its pearl trade.

Precious stones came from Kuta, Mala (perhaps Mula-Darra in Baluchistan) and Parasamudra which perhaps indicates Sri Lanka.43 No precious stone is available near Mula but perhaps in ancient times precious stones from Iran coming through Mula pass gave the place its importance. Sri Lanka is of course very famous for its precious stones.

Ruby and spinal ruby are mentioned in the Arthasastra4s but we are not informed about their places of origin. Perhaps these precious stones came from Afghanistan, Sri Lanka and Burma.

The Vindhya Hills and Kerala vielded crystal.45 The Arthasastra mentions several varieties which cannot be properly identified. Sapphire and amethyst came from Sri Lanka.46

Good diamonds came from Sabharashtra (Berar), Madhyamarashtra (Madhya Pradesh, Dakshina Kosala), Kashmaka (Asmaka, probably the diamond mines of Golconda), Dakshina Kalinga (South Orissa).47

Coral named alakandaka came from Alexandria. It is possible that this name crept in the Arthasastra at a later date but we are unable to agree with Prof. Sylvan Levis that the appearance of this word gives a later date to the Arthaiastra.

The Arthaiastra also informs us that in the Mauryan period there was a great demand for aromatics. Many kinds of sandalwood came from South India, Java, Sumatra, Timoy, Malaysia and Assam. 49 The agallochum came from Assam, Malaysia, Indo-China and Java. 50

In the Mauryan period there was a very brisk trade in horses between India proper and North-West India. The horses coming to the middle country came from Kamboja (Tajikistan), Sindh, Mianwali (West Pakistan, Panjab), Vanayuja (Wana in West Panjab), Balkh and Sovira or Sindh. 51

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# MERCHANTS, CONQUERORS AND BARBARIANS ON THE GRAND ROUTE FROM THE SECOND CENTURY B.C. TO THIRD CENTURY A.D.

In the shape of the invasion of the Indo-Greeks of Bactria of Pățaliputra. We have already observed that after the departure of Alexander from India the Mauryas rose to the zenith of power. From Chandragupta Maurya to Aśoka, the Mauryas occupied most of India and also in that period the Greeks had relation with this country. However, after Aśoka the Mauryan empire began breaking up and the country was divided into many states. Taking advantage of this state of affairs, Demetrius, the ruler of Bactria crossing the Hindukush led a military expedition against India. But his expedition was different in nature than that of Alexander, as he confined is expedition to Western Panjab only, but the Indo-Greeks of Bactria penetrated the very heart of India and reached as far as Pāṭaliputra. It is difficult to ascertain the exact date of this expedition, but according to Tarn, this event took place in about 175 B.C.

In his expedition to India Demetrius was accompanied by his commander-inchief Menander. Starting from Balkh his forces reached Taxila and thus he managed to occupy Gandhära. He established his capital at Pushkarāvatī in that region. Before marching onwards perhaps he appointed his son Demetrius II as the ruler of Uparisayena and Gandhāra and he established his capital at Kāpiśī. After occupying Taxila the forces of Demetrius marched onwards by two routes. One route was the same which passing the Panjab and Delhi went to Patna and the second route proceeded along the Indus river to its mouth. Making use of these routes Demetrius, Apollodotus and Menander decided to conquer the whole northern India. In the opinion of Tarn, Menander took one route and Apollodotus and Demetrius perhaps proceeding onwards by the route of the Indus conquered Sindh and established there a place named Dattamitrī, which must have been situated somewhere near Brahmanabad. It seems that Demetrius did not proceed beyond this point and entrusting the administration of Sindh to Apollodotus returned to Balkh.

Some information is available about the progress of Menander on the Grand Route from Grecian and Indian sources. Menander at first occupied Śākala, from here according to the Yuga Purāṇa the Grecian forces reached Mathurā and then marching onwards they reached Sāketa, Prayāga and Vārāṇasī and finally to Pāṭaliputra. The archaeological proof of this march of the Indo-Greeks is available

from the excavations at Rajghat which have yielded some seals which bear the portraits of the Greek gods and goddesses and also some rulers. Some seals also bear the portraits of the Bactrian camel. It appears that perhaps the forces of Menander had occupied Banaras and proceeding from there occupied Pataliputra.

Leaving Menander at Pataliputra one should inquire about the activities of Apollodotus in Sindh. Tarn is of the opinion that from Sindh taking the sea route he occupied Kutch and Saurashtra. According to the Periplus the rule of Apollodotus extended as far as Bharukachchha at least in the 1st century A.D. Menander's coins were in currency there. There was twofold gain in occupying Bharukachchha. Firstly, by occupying one of the biggest ports of India which had trade relation with western countries, that trade came in his hands and, secondly, from this place a route proceeded to Ujjain, Vidisa, Kausambi and Pataliputra, thus occupying the main artery in the road system of India. Taking this route he attacked Madhyamika or Nagari situated in south Rajasthan at a distance of eighty miles from Ujjain. It is possible that he might have occupied Ujjain as well.2 We are thus in a position to see that Demetrius by occupying Taxila and Bharukachchha, Ujjain and Pataliputra controlled practically the whole network of the roads in northern and western India. Tarn is of the opinion that perhaps Demetrius occupying Taxila firmly wanted to appoint Apollodotus and Menander as the rulers of Ujjain and Pataliputra respectively and thus bring the whole of India under his rule but while man proposes God disposes. Demetrius was able to maintain his rule from Syria to the Gulf of Cambay, and from the Iranian desert to Pataliputra only for a very short period. His empire included Afghanistan, Baluchistan, Russian Turkistan, north-western India, the Panjab with south Kashmir, most of Uttar Pradesh, some parts of Bihar, Sindh, Kutch, Saurashtra, northern Gujarat, Malwa and some parts of south Rajasthan, but this gigantic empire did not last more than ten years. After the invasion of Eucratides on Balkh in about 167 B.C. it went to pieces. Even then the influence of Indo-Greeks continued in Balkh and the Panjab to about 30 B.C.

Unfortunately, we do not know much about the Indo-Greeks except for their portrait coins. We could only surmise that in the north-western section of the Grand Route the following kingdoms existed namely—Balkh along Margiana and Badkshan and in the south of Hindukush, Kapiśa and the low plains separated from Uparisayena which were added by Alexander to the districts lying between Nagarahāra and Pushkarāvatī from Arakhosia to the right bank of the Industhere lay two capitals namely Taxila and Śākala. It is a hard task for numismatists to study the Indo-Greek coins bearing in mind the symbols used and their provenances to determine where these Indo-Greek kings ruled and in what part of the country.

According to Strabo from Herat three routes led to the frontiers of India, one route striking to the right reached Balkh and from there passing the Hindukush reached Ortospana situated in Uparisayena. Here the other branch route from Balkh met. The second route proceeding from Herat to the south proceeded to Prophthasia in Drangiana and the third route passing through the mountains

proceeded towards India and the Indus river. Ortospana of Ptolemy (Sanskrit Urdhvasthanam) may be identified with the region of Kabul from where this route proceeded to Kohistan. Foucher is of the opinion that Cabour and Ortospana were the names of Kabul, Ortospana was perhaps situated somewhere in the neighbourhood of the modern Kabul.

As we have seen above after the death of Demetrius the rule of the Indo-Greeks in India came to an end. But his great commander Menander remained in India. We know nothing about his empire except for some coins and the philosophical treatise the *Milindipraina*. Perhaps he died between 150 and 145 B.C.

It is generally agreed that the empire of Menander extended from Mathurā to Bharukachchha. After leaving Pāṭaliputra he was forced to leave the Doab as well. As soon as he marched back the Śuṅgas established their authority in Pāṭaliputra and Sāketa. It is possible that the limit of Menander's empire was the Chambal river in the south of Mathurā. In the north his empire extended upto Uparisayena including Gandhāra and in southwest his authority reached upto Bharukachchha.

Tarns on the basis of Ptolemy has tried to throw light on the provinces of the Indo-Greeks. In Sindh there existed a province named Patala (Ptolemy VII, 1-55). In the north of Patala was situated Abiria or Abhīradesa and in the south Saurashtra. Perhaps in that age Saurashtra also included a part of Gujarat. Between Patala and Saurashtra lay Kutch which at that time perhaps included a part of Sindh as well. The Abiria of Ptolemy could be identified with central Sindh. The name of northern Sindh according to Pliny (VI, 71) was Prasiane. Thus we can see that in the south of the Panjab the Indo-Greeks had five provinces whose boundary lines were similar as in the present day. Proceeding from north to south these provinces were as follows: Prasiane, Abiria, Patalene, Kutch and Saurastrene. In another passage (Ptolemy VIII, 1.42), two provices of Gandhara namely Souastene and Goruaia are mentioned. Souastene perhaps indicates the central or lower Swat and Goruaia was perhaps the country between the lower Swat and Kunar which is known as Bajaur now. Pushkaravatī known to Arrian (Indica 1.8) as Peucelaitis was the third province of Gandhara. The names of Buner and Peshawar provinces are unknown but perhaps one of the names was Gandaritis.

We know very little about the Greek provinces situated in the trans-Indus region. At one place Ptolemy (VII, 42) mentions two provinces namely Kaspeiria identified with southern Kashmir and Kulindrene which perhaps indicated the Siwaliks situated in the east of the Jhelum. After that the provinces of the Indo-Greeks are unknown. In this age the republic of the Audambaras which included modern Gurdaspur and Hoshiarpur in eastern Panjab and whose centre of activity was Pathankot was one of the important republics. In its south the Trigarttas lived in Jullundur and to their east the Kunindas lived somewhere between the Sutlej and Yamuna. The Yaudheyas inhabited eastern Panjab and between Delhi and Agra perhaps the Ārjunāyanas lived.

After Menander the Indo-Greeks practically disappeared from Indian history, but their state received greatest shock from certain nomadic tribes who from very ancient times had occupied the country in the north of Balkh and who from time to time invaded their rich neighbours. Apollodotuse informs us that even before the Indo-Greeks had invaded India they had to fight the nomadic tribes to stem their influence. In this they followed the example of the Achaemenians. These Achaemenian tribes in the north and south in order to defend their empire kept in control the nomadic tribes living between the Pamirs and the Caspian Sea, but this arrangement was unable to contain the invasions of the Śakas, Tukhāras, Huṇas and the Mongols. Coins of these nomadic tribes are available but for their history we have to depend on the Chinese sources.

In Indian literature the Śakas and Pahlavas are mentioned side by side because their country were contiguous and both were of Iranian origin and followed the same religion. In about 123 B.C. when the Yuz-Chi were pressing the Śakas towards Balkh, the Indo-Greek ruler Heliocles who was being pressed by the Parthians left the place in order to save himself. The Indo-Greeks, however, while withdrawing, closed the Hindukush route and this way they were able to save themselves for almost a century in Kapiša and north-western India. In such condition the attackers were forced to follow the south-western route to Herat where they had to face the forces of Mithradates II, the Parthian ruler.

To know the history before this event we have to enquire about the movements of the Yüe-Chi and the Śakas. The Yüe-Chi at first lived in the Gobi desert in south-western province of Kansu. In the second century B.C. between 177 and 176 B.C. they were defeated by Mao-Tun the ruler of the Huang-nu. In another war with the Huang-nu chief Lao-Shang (174-160 B.C.) the Yüe-Chi ruler lost his life and on account of this defeat the Yüe-Chi were forced to leave their motherland. One party proceeding to northeast reached Richtofen Range and came to be known as little Yüe-Chi later on, but the major party proceeded to the west and defeated Sai (Śakas) in the north of Tien-Shen range. After this defeat some of the Śakas proceeded to the south and the rest merged themselves with the Yüe-Chi. But after this conquest the Ta-Yüe-Chi, defeated by Wusun tribe were forced to march onwards and in this way they reached Balkh and occupied it. The Śakas, however, marching to the south occupied Ki-pin. The conquest of Balkh is said to have taken place in 129 B.C.<sup>7</sup>

The information about the progress of Ta Yue-Chi people is available in Chinese and Grecian sources, but fortunately some references have survived in the Sabhāparvan of the Mahābhārata which inform us that Indians were also aware of the great turmoil in Central Asia in the second century B.C. In the chapter describing the conquests of Arjuna, he, after conquering the Kambojas, along with the Daradas, marched to northern regions and after conquering the nomad tribes fought hard battles with the Paramakāmbojas, the Rishikas of the north, and the Paramarishikas. After subduing the Paramarishikas he received as a gift eight horses of good breed. After that reaching the Svetaparvata he took rest.

From the above account we can determine the geographical situation of the Rishikas and Paramarishikas. After conquering the Vählikas (M.B. II/23-21) he conquered the Daradas and Kämbojas. Here perhaps the Kämbojas indicate the people Tajikistan speaking Galaha as I have pointed elsewhere. Arjuna must have proceeded on his expedition to Balkh by the Grand Route. After subduing Balkh he fought battles with the Lohas, Paramakämbojas, Uttararishikas or northern Rishikas. According to Sri Jayachandra the Paramakämbojas could be identified with Yaghnobis living at the source of the river Zarafshan. He has also identified the Rishikas with Yūe-Chi.

However, this is not the first attempt to identify the Yue-Chi with the Rishikas. The language of the Śakas of Central Asia was Arshi and therefore, those people could be connected with the Rishikas. However, Pelliot<sup>12</sup> did not agree with this view but the connection of Arshi and Rishika could not be dismissed summarily.

According to Apollodotus (Strabo II, 511), there were four races namely Asii, Pasiani, Tochari and Sacarauli. Tarn<sup>13</sup> regards Asii as an equivalent of Yüe-Chi, Pliny, however, knew about the Arshi people.<sup>14</sup>

In this connection we will have to establish the relationship of the great Rishikas with the Pasii and Pasiani. As the form of Asii was also Asiani in the same way Pasiani must be the adjectival form of Pasii or Pasi. The Grecian geographers knew of a tribe known as Prasii.

Let us also inquire about the information which the Mahābhārata gives about the Rishikas. In the Ādi Parvan (M.B. I/60-30), the king of the Rishikas is regarded as the son of Chandra and Diti. Here the attention of scholars may be drawn to the opinion of Prof. Charpentier which regards Yue-Chi as the translation of the "moon tribe". In the Udyoga Parvan (M.B.V/4-15) the Rishikas are mentioned along with Śakas, Pahlavas and Kambojas. It is also remarkable to note that in the Bhandarkar Oriental Research Institute's edition of the Mahābhārata the footnote gives the Prakrit forms of Rishika as Ishika and Ishi. At another place (M.B. II. 24-25) the earliest Paramārshika has also been used. Therefore, it could be affirmed that the Mahābhārata knew Sanskrit forms Rishika, Arshika and Paramārshika and also its Prakrit forms as Ishi and Ishika.

We have seen above that the Grecians knew of Asiani and Arshi. There should be no difficulty now to acknowledge that the Prakrit Ishi-Ishika stands for the Grecian Asii and the Grecian Arshi stands for the Sanskrit Arshika. Perhaps these were the constituents of the Yüeh-Chi. The Uttara-Rishikas could be equated with the Ta Yüeh-Chi of the Chinese history.

In the Sabhāparvan (Chapters 47, 48), the Śaka, Tukhāra, Kanka, Chīna and Hūna are mentioned in an order and the list follows the same order as given in Chinese history. In one couplet (M.B. II.47-19) Chīna, Hūna and Oḍra are men-

tioned and another couplet (M.B. II. 47-21) mentions Śaka, Tukhāra and Kańka together and the third couplet (M.B. II. 48-15) mentions Śaundika, Kukkura, and Śaka together.

We have seen above how the Śakas compelled by the Yüeh-Chi reached Ki-pin. Chavannes identifies it with Kashmir and points out the route which reached there via the Yasin Valley. Sten Konow (C.R.I. Part II, p. 23) identifies Ki-pin with the Swat Valley which extended in the west upto Arakhosia. Whatever may be the case it seems that with their road barred, the Śakas followed the route to Herat. That was the natural route of that region and it does not seem possible that leaving it aside they took the Bolor route.

It seems that the Tukhāras were a branch of the Yüe-Chi. The Kankas (M.B. II, 47-26) could be identified with the Kangkiu people living in Sagdiana. They were influenced in the south by the Yüe-Chi and by the Hūnas in the east.

The Śakas and Kańkas inhabited Ta-Yuan (Ferghana) because their countries were contiguous. The Tukhāras perhaps lived in the south. From these references it is evident that by keeping the Śakas, Tukhāras and Kańkas together the Indians knew the contiguity of their habitations in the second century B.C.

We have pointed out above how the Śakas and Mithradates II (123-128 B.C.) were at war. Though he was unable to stop the progress of the Śakas even then by slowing it down to the north-east he compelled them to proceed to Drangiana and Scistan. From there following the Kandhar route the Śakas reached Sindh. Following the Indus they marched upward and conquered Gandhara and Taxila and within a very short period completely uprooted the Indo-Greeks from this land.

The progress of the Sakas to India through Seistan is mentioned in the story of Kalaka, according to which very much pained by the tyranny of Gardabhilla, the ruler of Ujjain, Kalakacharya reached Sakasthana then accompanied by the Sakas of Sindh he reached Saurashtra and then proceeding to Ujjain defeated Gardabhilla. According to the Indian calendar Vikramaditya threw out the Sakas from Ujjain in 57 B.C.

Perhaps Nahapana in the first century A.D. ruled over a portion of Western India and he was defeated by Gautamiputra Śatakarani, but even before that date the Śakas had conquered Mathura. There seems to be two reasons for the disappearance of the Śakas from Mathura. One was the military expeditions from eastern India and second was the invasion of the Parthians from the west. However, shortly afterwards, they were thrown out from Ujjain, Mathura and Sindh, though it is difficult to say whether all these incidents took place at once or at intervals.

When these events were taking place in India at that time also the Indo-Greeks were present in Kapist where they fell in the eyes of the Kushanas who had conquered Sogdiana and Balkh. It is evident from the coins that the last Indo-Greek ruler Hermaeus and Kujula Kadphises by combining their forces faced their common enemy, the Śakas and Parthians. In this unequal war the Parthians proceeding from the southern route finished the Indo-Greeks. Fighting against the Śakas, Mithradates II annexed Arakhosia. His feudatory Siren seeing that his master was engaged in war with the Romans rebelled and declared his independence. But shortly afterwards there arose another Parthian king Vonones who following the Argandab route attacked Kāpišī. It is evident from the coins and inscriptions that a little before the pre-Christian era the territory extending from the Hindukush to Mathura was under the control of the Parthians and the Śakas or their Kshatrapas. According to the Periplus, the Śaka-Parthian rule extended to the Indus Valley and the coastal regions of Gujarat. It seems that after merging of the kingdoms of Maues, Vonones and Gondopharnes, the Parthians extended their sway from the frontiers of India to Iran, Afghanistan and Baluchistan.

After the Sakas and Parthians, the north-western part of the sub-continent came within the rule of the Kushanas. They are usually identified with Ta-Yüe-Chi of the Chinese history and the Tukharas of the Puranas, who, after wandering in Central Asia, had settled in Tukharistan (a part of Sogdiana and Balkh).

As we have seen above perhaps the Tukharas were a branch of the Rishikas, who, after they had marched onwards, stayed in the Nanshan mountains and who were known to Chinese historians as Ta-Yüe-Chi.

The movement of the Kushāṇas was in the form of a second Śaka invasion. Kujula Kadphises took the Hindukush route because there was no impediment there in that period. The Indo-Greek kingdom had vanished and only the Śakas and Parthians had remained to fight among themselves. Kujula Kadphises either through the strength of his army or with the help of the Indian Śakas conquered Kapiśa and Arakhosia. It is evident from inscriptions that in 26 B.C. Kujula was only a prince but in 7 B.C. he was the master of Panjatar. This means that by this time the Kushāṇas had annexed eastern Sindh from the Parthians. In 7 B.C. Taxila came under his control, but perhaps the Kushāṇa rule was not firmly established because a Chinese historian mentions the conquest of India by Wima Kadphises. Perhaps the rule of Kujula Kadphises started in 25 B.C. and ended in the first decade of the Christian era.

As we have observed above Wima Kadphises who was firmly established in Central Asia conquered Sindh and as observed by Thomas<sup>17</sup> Mathura came under his control. On the strength of his coins it could be said that his empire extended upto Pataliputra.

After Wima Kadphises, the second dynasty of the Kushanas started. Kanishka was the greatest ruler of this dynasty. He was not only a great warrior but had unflinching faith in Buddhism. The progress of Buddhism during his reign was phenomenal. According to Ghirshman<sup>18</sup> his empire extended upto Patna. He

also controlled Ujjain and in Western India his rule extended upto Broach. In the north-west he controlled the Panjab and Kapiśa. His rule also was fairly extensive in the north of the Hindukush.

Kanishka also established his rule in the Tarim valley and this was necessary as in this region the two routes connected China with the west and they were being constantly used by merchants, missionaries and colonisers alike. Many small kingdoms on those routes raged constant warfare between themselves. In the time of Kanishka two powers had their eyes on this region—the Kushāṇas in the west and the Chinese in the east. In that period China had become weak and taking advantage of its weakness the Kushāṇa army reached the passes of the Pamirs. Kanishka established Indian colonies there and as the master of northern India and Central Asia he controlled both the silk routes.

Kanishka had to fight many wars for the conquest of Sogdiana. In the opinion of Ghirshman Sogdiana maintained the memory of the Kushāṇas even in the mediaeval period. In the northern silk routes from Kashgan many colonies were established by the Sogdianas and the Kushāṇas. Perhaps Buddhism had reached Sogdiana earlier than Kanishka where it flourished along with the Mazdean religion. The spirit of tolerance of the Sogdianas is evident from the fact that in their country merchants followed with equanimity Mazdean, Buddhist, Manichaean and Christian religions. Due to this spirit of tolerance of the Mazdeans Buddhism firmly entered into their spirit.

After the introduction of Buddhism in Sogdiana its art was greatly influenced by Indian traditions. The excavations at Termez and elsewhere by the Russians have yielded the remains of many Buddhist Viharas; on some of the sculptures obtained the influence of the art of Mathura is evident. The Kharoshthi script was equally popular there.

It seems that after great effort Kanishka managed to conquer this country and thus became the ruler of such a vast empire which in the north extended to Peshawar, Samarkand and Tashkent. Its boundaries extended from Merv to Khotan and Sarnath and it also extended from Jaxartes to the sea shore of Oman. Such an empire never existed in ancient times.

In that period the Kushāṇa and the Roman empires established close relationship. The Chinese porcelain, Chinese silk, ivory, precious stones, spices, cotton textiles were carried on the routes controlled by the Kushāṇas, and the Roman gold began pouring in the Kushāṇa empire through these routes. Even after the lapse of two thousand years the Kushāṇa gold coins are found in good number in northern India. It seems that the fashionable section of the people under the Kushāṇa rule was also fond of Roman goods. The excavations at Belgram by Hackin have yielded some articles of Roman and Chinese origin which were apparently meant for the internal consumption in India and elsewhere. But these goods were so costly that Rome decided to establish direct relation with China. The Chinese

sources inform us that the Roman ruler Marcus Aurelius sent an embassy to China by the sea route in the end of the second century A.D. We shall see later on how the trade between India and the Roman empire developed in the Kushana period.

The Kushāṇas carried on their diplomatic policy with great fortitude. After conquering the people they even released them after receiving gifts. The Kushāṇas occupied the empire of Gondophar‡nes but it seems that they allowed the Kshatrapas and Mahākshatrapas of that state to maintain their positions as before, only the name of the king was changed.

The hands of the Kushanas were always full with the politics of Central Asia and, therefore, they could rule India only through their Kshatrapas and Mahakshatrapas. In the Kushana period certain changes were also effected on the Grand Route. For the first time in history the Grand Route proceeding from the Ganga to Central Asia came under a unified control. A sector of this Grand Route passed from Peshawar, the new capital of the Kushanas, through Khyber. At the site of Sirsukh at Taxila the Kushanas built a new city but this did not result in any change in the course of the Grand Route. There is also reason to believe that the situations of Kapist, Nagarahara and Balkh also remained unchanged. From the commercial viewpoint these cities became more prosperous than before, The Kushanas could not continue their rule over northern India for a long time. By the end of the second century A.D. parts of Uttar Pradesh, Haryana and Madhya Pradesh were occupied by the Maghas, through Murundas, a branch of the Kushanas, ruled over Bihar and Orissa till the third century A.D. The credit of uprooting the Kushanas from Mathura goes to the Yaudheyas. In spite of all this upset in their fortune, the descendants of Kushanas continued to rule over the Panjab and Afghanistan for a long time. But with the rise of the Sassanian power in Iran in the third century, the Kushana power came to an end.

These political upheavals in the country did not affect the trade between India and other countries. It was carried on as before on international routes and there was great improvement in the sea trade and as we shall see later on, on account of this profitable trade India was the recipient of large amounts of Roman gold.

When these political changes were taking place in northern India, the Satavahana dynasty was increasing its strength in the Deccan. In the period of Simuka and his younger brother Krishna, the Satavahana empire had extended upto Nasik, and in this way as they profess in their later inscriptions, they had in reality become the rulers of the Deccan.

The Nanaghat inscriptions of the Satavahanas inform us that the pass had come under their control. This was important because the Junnar pass opened the way to the Konkan. This growth in the Satavahana power very soon brought under their effective control the Grand Route between Ujjain and Paithan. The expansionist policy of the Satavahanas resulted in their wars with Sungas and later

sont

on with the Kushāṇas. The account of this consolidation of their power over Pratishṭhāṇa in the first instance and later on its expansion to Ujjain and Vidiśā is available from coins and inscriptions.

Pratishthana known now as Paithan is situated in Aurangabad district of Maharashtra on the northern bank of the Godavari. According to Pauranic sources the city was ruled by Satakarni and his son Saktikumara. Both of them have been identified with Raja Satakarni and Saktisrt in the inscriptions of Nanaghat. The road between Pratishthana to Ujjain-Vidisa and then proceeding finally to Pataliputra had to cross the Tapti and Narmada rivers. The conquest of Malwa may be attributed to Raja Satakarni who performed an Asvamedha sacrifice.

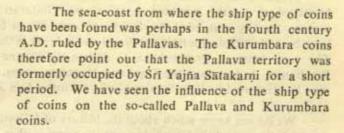
We do not know much about the history of Ujjayint, though it may be safely asserted that its political condition was the same as that of Vidiśā. In 90 B.C. the Śungas ruled over Vidiśā and they had political relations with Indo-Greek ruler of the Panjab. Perhaps at that time Ujjayini was under the control of the Satavāhanas. But about 75 B.C. the Śakas appeared on the scene and they in their turn were uprooted by Vikrāmaditya in 57 B.C.

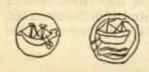
The second century A.D. saw the rivalry between the Sakas and Satavahanas. Within the empire of Gautamiputra Śrisatkarni (circa 106-130 A.D.) were included Gujarat, Malwa, Berar, northern Konkan, and the territory north of Nasik in Maharashtra. In the Nasik inscription of the mother of Gautamtputra are mentioned Asika, Asaka, Mulaka, Suratha, Kukura, Aparanta, Anupa, Vidabha, Akara, Avantı, Vijha, Achchhvata, Parijata, Sahya, Kannhagiri, Machha, Siritana, Malaya, Mahida, Setagiri and Chakora, which inform us that the territory extending from Malwa to the Deccan was under the rule of Gautamiputra. Almost all these regions were included in the empire of Nahapana and therefore, Mahakshatrapa Rudradaman got them back. Poona and Nasik districts were also under the control of Gautamiputra. His title as the "Overlord of all the Deccan" was not merely an empty boast. There is hardly any doubt that in the time of Gautamiputra, the Sātavāhana power had reached its zenith. The inscription informs us that he crushed the pride of the Kshatriyas; the Sakas, Yavanas and Parthians bowed before him. He uprooted the Khakharatas and thus enhanced the glory of the Satavahana dynasty.10 The Khakharata here stands for the Kshaharata dynasty to which Bhumaka and Nahapana belonged. There is no doubt that the Kshatriyas in the inscription indicate Indian rulers and the Sakas, Yavanas and Pahlavas were foreigners.

Vāsishthīputra Pulumāvi (circa 137-155 A.D.) was the son-in law of Rudradāman. Even then by defeating his son-in-law Rudradāman annexed some part of his empire. Another great king of the Sātavāhana dynasty was Śrī Yajña Sātakarni, who according to Rapson issued the ship type coins found in the Chola Mandala between Madras and Cuddalore (Fig. 5).20 Professor 7.9. Mirashi21 on the strength of a complete coin of this type has, however, proved that these coins were issued by Śrī Yajña Sātakarni. On the reverse of this coin appears a double masted ship

below which a fish and a conch shell symbolise the sea. The ship raked at both ends is equipped with masts, ropes and sails. There is no doubt that this ship symbolises the Indian overseas trade which was in full swing in the Satavahana period.







Guntur district of Andhra Pradesh it informs us that ship type of coins were in currency in that region as well. The ship type and the Roman coins from the Chola Mandala inform us that there was a very intimate commercial relation between India and the Roman empire.

But as Professor Mirashi's coin was found in the

Fig. 5 Ship designs on Satavahana coins

We are not concerned here with the later history of the Satavahana dynasty but it appears that after Srī Yajna Satakarni the Satavahana empire was divided and by the middle of the third century A.D. it came to an end and from its ruins arose the Kadambas of Mysore, the Abhīras of Maharashtra and the Ikshvakus of Andhra Pradesh. In the Guntur district, in the Palnad Taluka situated on the right bank of the Krishna river, ancient ruins have been found on the hills of Nagarjunikonda which provide historical evidence about the Ikshvaku dynasty ruling in the second and third centuries A.D. on the eastern sea coast of India. The inscriptions mention three kings i.e. Madhariputta, Siri Virapurisadata, his father Vasishthiputra Chantamula and Ehubala Chantamula son of Virapurisadata. To the same dynasty belong the inscriptions of Väsishthiputra Rudrapurisadata. It should be noted here that a royal dynasty relating itself to Ayodhya ruled at such a long distance from its place of origin. It is apparent that the Ikshvaku princes exercised great influence in Andhra Pradesh because they had matrimonial relations with the Vanavasa dynasty of northern Kanara and the Kshatrapas of Ujjayini.22 These rulers believed in religious tolerance because though they themselves followed Brahmanism, the women their families were devout Buddhists.

An inscription of the fourteenth regnal year of Madhariputta mentions that Buddhist monks of Sri Lanka raised a Chaitya there. It is further mentioned that these monks converted people to Buddhism in Kashmir, Gandhara, China, Chilata (Kirata), Tosali, Avaranta (Aparanta), Vanga, Vanavasi, Yavana, Damidha, (P)lura and Tambapara. However, some of the countries mentioned in the inscription such as Kashmir, Gandhara, Vanavasi, Aparantaka and Yona had accept-

ed Buddhism after the third Buddhist council. The list of the above countries could be compared to a similar list appearing in the Milinda Praina. 23

Chilatas mentioned in the above inscription have been also referred to by the Periplus and Ptolemy. According to the Periplus they were a people of northern India. Ptolemy places them on the Bay of Bengal. According to the Mahābhārata however (M.B. II. 49.8) they lived on the slopes of the Himalayas in Vārisha perhaps Barisal in Bangla Desh situated on the sea shore and the Brahmaputra. It is apparent from this reference that the term Kirāta in the Mahābhārata indicates the people of Indo-Burmese origin. They were clothed in skins and lived on fruits and roots. At the time of the Rājasūya Yajāa they presented to Yudhishthira, skins, gold, precious stones, sandalwood, agallochum and aromatic articles.

Tosali was situated in Kalinga or Orissa and was renowned for its ivory work. Aparanta is the Konkan; Vanga, Bengal and Vanavasi, northern Kanara. The Yavanas perhaps indicate Alexandria. Palour was Dantapur the capital of Kalinga and Damidha stood for Tamil Nad.

In the above inscription, mention has been made of the Mahāchaitya at Kaṇṭakasela. There is no doubt that this Kaṇṭakasela and Kontkossula of Ptolemy (VII. 1.15) which he places just after the mouth of the Krishna are the same. Dr. Vogel places this Kaṇṭakasela in Nagarjunikonda, but the discovery of five inscriptions from a village named Ghaṇṭasal in the Krishna district on the eastern coast datable to circa 300 A.D. makes the identification of Kaṇṭakasela easy. The first inscription mentions the great sea Captain Sīvaka which supports the view that in the early centuries of the Christian era Ghaṇṭāsāl was an important port. In the second inscription the ancient name of Ghaṇṭāsāl is given as Kaṇṭakasālā. These references leave no doubt that in the early centuries of the Christian era Kaṇṭakasālā was a big port situated on the right bank of the Krishna river which carried on trade with the ports of Sri Lanka and other countries.

According to Ptolemy (VII. 1.16) Palour was an aphetarium (samudraprasthāna) from where ships sailing to Suvarṇadvīpa leaving the shore went to sail in mid-sea.

Palour is identified as situated in the neighbourhood of Chicacole and Kalingapatnam.<sup>25</sup> There is no doubt that the prosperity of Buddhism on the eastern coast
was due to the prosperous commerce there. The followers of Buddhism were
mostly merchants and it was with their help that the great stupas at Amravati,
Nagarjunikonda and Jagyyapet were raised. The decadence of Buddhism in the
lower part of the Krishna river was due to the waning of trade with the Roman
empire which stopped the import of gold in this country thus impoverishing the
merchant community.

While the Satavahana empire was strengthening itself, at the same time Kshatrapas were ruling over Saurashtra and Gujarat. These Kshatrapas were pro-

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bably the Satraps of the Kushanas. Perhaps they were of the Saka or Parthian origin but later on they had fully accepted Hinduism. Now it is almost certain that the Kshatrapas of Saurashtra were faithful to Kanishka and his descendants, and that the Kshatrapas ruling over Gujarat, Saurashtra and Maharashtra belonged to two dynasties.

The coins of Bhumaka are found on the sea coast of Gujarat and Saurashtra and Malwa. Nahapāna, whose rivalry with the Sātavāhanas, is mentioned in the Jain literature perhaps ruled between 119-124 A.D. though this date is disputed by historians. Perhaps Nahapāna controlled Gujarat, Saurashtra, north Konkan districts of Nasik and Poona, Malwa and a part of Rajasthan. But as pointed out above Gautamīputra annexed a part of his empire.

Chashtana was the founder of that dynasty which ruled upto 304 A.D. The relationship between the dynasty of Chashtana and the Kshaharāta is not yet fully determined. It seems that after the uprooting of the Kshaharātas by Gautamīputra Sātakarņi the remaining Śakas appointed Chashtana as the Kshatrapa of the remaining provinces. It was with a view to retain the lost part of their empire. We do not know how far Chashtana and his son Jayadāman made progress in this direction, but about 150 A.D. Rudradāman conquered Malwa, Saurashtra, north Gujarat, Kutch, Sindh, some parts of Western Rajasthan and northern Konkan. He also conquered the Yaudheyas and inflicted defeat twice on Sātakarņi. The later Kshatrapas whose names are available from their coinage have no place in history. In near about 401 A.D. Chandragupta II uprooted them from Malwa and Saurashtra.

II

The entry of the Sakas in Sindh and afterwards their progress to the Panjab, Mathura, Ujjain and the establishment of the Kushāṇa empire in northern India, all these events created a national feeling in the country which took visible form in the extension of the Satavāhana power in the Deccan. The rivalry between the Sakas and Satavāhanas in the Deccan means that the Kushāṇas had entered the region by that time. Prof. Sylvan Levi has treated the problem of the entry of the Kushāṇas in the Deccan at some length.<sup>26</sup>

From his inquiries it is apparent that the cities with strategic importance took part in the rivalry between the Kushāṇas and Sātavāhanas. The Periplus and Ptolemy also throw light on this vexed problem.

The Periplus (50-51 A.D.) gives some account of the Dakhinabades or Dakshinapatha. According to this source from Barygaza (Bharukachchha), Paithan was situated at a distance of twenty days journey and in the east Tagara was situated at the distance of ten days journey. Besides these towns the Periplus (52) mentions Sopa (Sopara) and Kalliyena (Kalyan). Kalyan in the time of the elder Sarganes was an open port. But in the time of Sandanes this port was closed for Greek ships.

The ships which arrived there were asked to proceed to Bharukachehha escorted by armed guards. Kalliyena is modern Kalyan near Bombay situated on the Ulhas river. The town is situated at the foot of the western ghats and there are two routes from there one proceeding towards Nasik and the other towards Poona. Because of its situation it commanded the major portion of the Sātavāhana trade with the west. But as we have seen above with the progress of the Kshaharātas towards Broach, the trade of the Deccan received a setback. The route between Paithan and Kalyan is lesser by eighty miles by the hilly route between Paithan and Broach. Even then there were greater advantages in taking the Broach-Kalyan route. The Kalyan route did not pass through any fertile region. As against this the road from Broach to Ujjain passed through the fertile valley of the Narmada. The same route passing through the Panjab proceeded to Kabul and then proceeding onwards reached Central Asia.

The commercial importance of Kalyan is stressed in the inscriptions from Kanheri and Junnar. They mention the names of merchants and artisans. Ptolemy informs us about the diminishing trade of Kalyan as he does not mention Kalyan as an important sea port on the western coast. According to Ptolemy important ports on the western coast were situated in the following order: Suppara, Goaris, Dounga, Bendas, the mouth of the river and Semylla. From the above list it is apparent that the place of Kalyan was taken up by Dounga but its commercial importance did not last for a long time because in the sixth century A.D. Cosmos Indikopleustes mentioning Kalyan again points out that it was one of the six biggest markets of India and was famous for its bronze work, blackwood and textiles. Johnson places Dounga in the Salsette Islands and identifies it with Doungari facing Bassein. The salsette Islands and identifies it with Doungari facing Bassein.

Johnson stresses the point that as in the second century Ptolemy misses the name of Kalyan, in the way in the inscriptions of that period in the place of Kalyan Dhenukākaṭa or Dhenukākaṭaka is mentioned. It is apparent from the inscriptions of Karle that the citizens of Dhenukākaṭaka from whom six Yavana citizens made a gift to Karle of the columns number thirteen and seventeen. The gift of a gharamukha was made by a perfumer (gāndhika) and was built by a carpenter.

As we have noted above it is worth considering why the name of Kalyan does not appear in these inscriptions. This only means that according to a certain prohibition the trade of the port had shifted to Dhenukäkataka. The Yavanas or the Alexandrian Greeks acted as intermediaries in the trade between India and the Roman empire. The gandhika mentioned in the inscription was a dealer in aromatic goods which had great demand outside India. Dhenukäkataka is also mentioned in one of the inscriptions of Kanheri. It may be inferred from this that after the conquest of the Konkan by Yajanasri, Kalyan had again regained its importance. It is difficult to come to any conclusion by the reference to Kalyan in Kanheri inscriptions because these three inscriptions in question are datable before the expeditions of the Kshatrapas, and other three inscriptions are after the Konkan had gone out of their hands. The rest of the two inscriptions (986, 1014) may be

dated between these two events. Johnson is of the opinion that the progress of Dhenukakataka continued when it was in the hands of the Sakas, after the reconquest of the Konkan by the Satavahanas, the commercial importance of Kalyan was restored.

In the time of the *Periplus* and Ptolemy, Sopara carried on most of the Indian trade with foreign countries, but gradually this port as well began losing its importance and in the end Sopara has survived only as a village 40 miles north of Bombay. The elder Pliny (died 78 A.D.) suggests that after the discovery of the monsoon the merchants carrying on business between India and the Red Sea took its advantage with the result that the ships sailing from the Bay of Sygrus (modern Ras Fartak) reached directly to the Malabar coast and for this reason the port of Muziris gained such an importance that it left behind other Indian ports.

We are well aware that Broach occupied the premier place in Indian ports of the second century A.D. and for the possession of this port there was constant friction between the Sakas and Satavahanas. Aparanta which perhaps included Broach was conquered by Nahapana but later on it was retaken by Gautamaputra Satakarni. But in the middle of the second century A.D. Rudradaman again occupied it. Ptolemy throws some light on the war for Aparanta. The district of Nasik guarded the passes on the road between Broach and Paithan. Nahapana between the years 41 and 46 occupied this. But this region was retaken in the 18th regnal year of Gautamaputra Satakarni, and in the time of Pulumavi Vasishthiputra who has been mentioned as Siri Ptolmaios by Ptolemy (VII. 1.82) it became a part of the Satavahana empire.

Ptolemy does not include Nasik in his Ariake, which was indicative of the empire of Sri Pulumāvi but places it in Larike or Lāṭa-Lāṭika. The capital of Pulumāvi was Ozene or Ujjayinī. Ptolemy also includes in his empire two places Tiagoures and Xerogerei. According to Prof. Levi, Tiagoures could be identified with Chakor mentioned in the inscription of Gautamīputra and Setagiri of the inscription stands for Xerogerei of Ptolemy. Siriṭan is the same as Sirital of Ptolemy and Malayakron of Ptolemy (VII. 1.34) is said to have been situated on the Bay of Broach.<sup>22</sup>

It is worth noting here that the eastern limit of Larike started from Nasik and proceeded to Broach. There were other cities situated in its north-west. It seems that when in the beginning of the second century A.D. Ptolemy's informers were in India by that time Gautamiputra had not taken back Nasik from Chashtana. After uprooting the Kshaharātas only within a short period Gautamiputra became the master of Ujjayini and thus regained the territory lost to Rudradāman.

In the Jain literature an account of the wars between Nahapāna and the Sātavāhanas has survived. A story in the Āvaiyaka-chūrņi informs us that once upon a time Bharukachchha was ruled by Nahavāhaṇa (Nahapāna) and Pratishthāna by Śālivāhaṇa (Sātavāhaṇa). Both had big armies. Nahavāhaṇa who was very

rich made an announcement that for the head of every soldier of the Sătavāhana army he was prepared to pay a lakh. The soldiers of Śālivāhaṇa often killed the men of Nahavāhaṇa but they did not receive any award for that. Every year Śālivāhaṇa attacked the territory of Nahavāhaṇa. Once upon a time Śālivāhaṇa was advised by one of his ministers that to conquer his enemy he should take recourse to a strategy. The minister himself carried a load of agallochum to Broach. There he stayed in a temple and caused a rumour to float that he was banished by Śālivāhaṇa. Hearing this Nahavāhaṇa took him in his favour and he advised the ruler to build temples, stūpas, tanks, etc. and by doing so all his wealth was exhausted. Then he informed Śālivāhaṇa that Nahavāhaṇa had no money to award his soldiers. Hearing this Śālivāhaṇa attacked Broach and razed it to the ground.34

Whatever may be the truth in the story there is no doubt that Nahapāna had constructed temples etc. His son-in-law Ushvadāta distributed alms on the river Varanās (the Banas river in Palanpur, Gujarat), Prabhāsa, Bharukachchha, Daśapura, Govardhana, Sopāraga, etc. He built cells (ovārakā) and caves and water troughs for the benefit of the Buddhist monks.

The Periplus (41) perhaps calls Nahapana as Nambanos; after Barake or Dwarka the rest of the Bay of Bharukachchha and the interior of Ariake was under the control of Nambanos.

It this way in the time of the Periplus, the kingdom of Nahapāna included most of Ariake and the coastal region of Kutch; the lower Sindh was under the control of the Parthians. His capital was Minnagara (Periplus 41) and Ujjayinī was the capital of the interior part (Periplus 48). According to Ptolemy (VII. 1.6) it includes Baithan (Paithan), Hippokoura and Balekouros and extended upto Banavāsi in north Kanara. The Dakhinabades of Ptolemy included all these regions. According to Ptolemy the interior region, the sea coast extending from Sindh to Broach, whose capital was Ujjayinī was called Larike. In this way pointing out the difference between Ariake and Larike Ptolemy shows that in his time changes appeared in the political geography of the country.

We have mentioned above the name of Sandanes mentioned by the Periplus. After he had occupied Broach the Roman trade with Kalyan came to an end. According to Prof. Levi Sandanes could be derived from the Sanskrit Chandana. In the Chinese Buddhist literature the word Tchantain was used as an honorific of certain royal persons. In the Sütralamkara it has been specifically used for Kanishka. In Gandhara and Wakhan this honorific was used for the Kushana rulers. After thorough investigation Prof. Levi reaches the conclusion that the Sandanes of the Periplus belonged to the Kushana dynasty and probably he was Kanishka. It may also be noted here that the Tibetan historian Taranatha places Chandanapala just after Kanishka. This Chandanapala ruled over Aparanta where Sopara is situated. Exactly at this place Ptolemy places the capital of Ariake (Ptolemy VII. 1.6). As we have seen above in the Mahabharata the Rishikas or Yue-Chi have also been connected with the moon. Perhaps Kanishka got this honorific because he belonged to the Yue-Chi clan.

However, there are scholars who are of the opinion that as the empire of Kanishka extended from the Indus to Vārāṇasī, how his empire could have extended to the Deccan. Prof. Levi, however, has produced evidence that between 25-130 A.D. the presence of the Yūe-Chis in the Deccan is proved. In his opinion, in the time of the Periplus one Chandana was the master of Broach and the Konkan. Ptolemy also indicates his presence in Ariake near Sopara. The Sandanes of the Periplus displaced one Saranges from the sea coast. The coastal region after Ariake was known as Andron Peiraton which was contiguous with the Dravida country frequented by the Andhra pirates. Even in the eighteenth century as well, this was the seat of the Angres whose pirate ships were source of headache to European shipping.

It is not surprising that after Chandana had established his authority on Broach and Sopara the commerce of those ports had shifted to Kerala where the port of Muziris grew in stature. Owing to the political and economic changes on the western sea-coast of India, the life of the people was also affected. From the political divisions given by Ptolemy it is evident how the merchants from Alexandria were facing the effects of those political turmoils on their trade. Prof. Levi is of the opinion that owing to the political changes in the country a section of the people were forced to migrate to Indo-China and Indonesia. According to a Javanese tradition there were two kinds of people who migrated. From Gujarat came merchants and from the port of Kalinga came the Kalinga people.

Ptolemy (VII. 4.3) mentions Andhras in the term Cape Andrai Simoundon, which was situated on the western coast of Sri Lanka. Ptolemy (VII. 4.1) further informs us that in ancient times Sri Lanka was named as Simoundon but in his time it was known as Salice. The base for Ptolemy's suggestion is Pliny (VI. 24.4 ff). Once Annius Plocamus, a tax collector of the Roman empire, when he was touring the Red Sea then caught by the monsoon he reached Sri Lanka and he was asked to act as a Roman Ambassador of Plodious (51-54 A.D.). Here he came to know that the capital of Sri Lanka was Palaisimundous. Simundous here indicates the sea. On this basis Andrai Simundous means the Gulf of the Andhras. As Palaisimundous indicates the sea route to Malaya, similarly the word Andrai Simundous reminds us of Trisamudrādhipati, the title of the Sātavāhanas.

We have seen above how the Satavahanas extended their power in the north, south and the west but, unfortunately, we do not know much about the Dravidian-kingdoms in the south though ancient Tamil poems make occasional references to them. In very ancient times Tamilagam or the Tamil country included the major portion of the present Tamil Nad. In the north its boundaries included the sea coast from Calicut to Tirupati, in the east it extended to the Bay of Bengal, in the south to the Cape Comorin and in the west to Badagara, a little south to Mahi. In that period Kerala also formed a part of the Tamil empire. The Pāṇḍyas, the Cholas and the Cheras ruled over different parts of the Tamil empire. The Pāṇḍya kingdom included the major parts of the Madurai and Tinnevelli districts. In the first century A.D. southern Travancore was also included in it. In ancient

times its capital was Kolki (on the Tamraparni river in the Tinnevelli district) and later on it was shifted to Madurai. The kingdom of the Cholas extended from the Pennar river on the eastern sea coast to Bellary and in the west upto Coorg. Its capital was Uraiyur (ancient Trichinopoly) and the port of Puhär or Käveripattinam situated on northern bank of the Kaveri river. Känchi was also a famous town within the territory of the Cholas. The Chera or Kerala Pradesh included Travancore, Cochin and the districts of Malabar which once formed the part of the Madras presidency. The Kongu territory (Coimbatore district and the southern part of Salem district) which once had its separate existence later on merged with the Chola territory. Its capital at first was Vanji (Tirukarur) situated on the Periyar river near Cochin but later on it shifted to Vanjikalam (near the mouth of the Periyar river). This territory included some important commercial towns such as Tondai (five miles north of the Kilandi), Muchiri (near the north of the Periyar), Palaiyūr and Vakkarai (near Kottayam).

Not much information is available about the history of Tamil Nad. Perhaps in the beginning of the Christian era the Chola kingdom was governed by Perunera-killi and the Chera kingdom was governed by Nedunjeral-adan. They both died in war. The Chola kingdom was greatly developed in the time of Karikala—grandson of Perunerakilli. He defeated the joint forces of the Cheras and Pandyas and perhaps made Kaveripattinam his capital.

After the death of Karikala the Chola empire received a great shock. Nedumudukilli once defeated the Pandyas and Cheras but later on after the destruction of Kaveripattinam and the revolt of his subjects he began losing the presence of his mind. However, he was rescued from all these calamities by the Chera Senguttuvan. Till the time of Chera Senguttuvan, the Cheras had maintained their power, but after being defeated by the Pandyas they were forced to see bad days.

We have tried to survey the history of India in the early centuries of the Christian era which tells us that one of the causes of ceaseless war was the control of the land and sea routes of the sub-continent. In the later Kushana period the Grand Routes from Peshawar to Pataliputra and Tamralipti and from Mathura to Banaras were partly controlled by the Yaudheyas, Maghas and Murundas. The Mathura-Ujjain-Broach route was controlled by the western Kshatrapas and they had to fight many a battle with the Satavahanas for its control. The ports on the western sea coast were controlled by the Kshatrapas, Satavahanas and Cheras and the ports on the eastern sea coast were controlled by the Kalingas, Cholas and Pandyas. How these multifarious authorities controlling the land and sea routes affected the trade of this country is difficult to say, but it is evident from the history of this country that in spite of political disunity the trade was not affected to any great extent. We will see in the sixth chapter that with the opening of the Red Sea by the Romans and the knowledge of the monsoon, the importance of Indian ports increased several-fold. Foreign merchants in search of spices, precious stones, textiles and other goods began visiting the country and Indian

merchants and adventurers in search of precious stones, gold, spices and aromatics started visiting Malaysia as never before.

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#### CHAPTER VI

## TRADE BETWEEN INDIA AND THE ROMAN EMPIRE

In the trade between India and Rome. The reason for this was the establishment of comparative peace by the Roman Empire which showed the way for new explorations and developments. The geographical importance of Arabia, the Asia Minor and north-eastern Africa serving as a chain for joining the West and Western Asia came into focus in this period. Roman merchants in Western Asia strengthened their business with ample financial resources thus consolidating their influence. But in spite of this it is strange that during their commercial intercourse the Roman and Indian merchants seldom met. The intermediaries in their trade were the Alexandrian Greeks, Syrian Jews, Armenians, Arabs, Axumites and the Parthians controlling the Somaliland and the land route leading to the East.

Asia Minor and Arabia may be regarded as the waistland of the land mass of Europe, Africa and Asia from which Italy and the sea coast of India are equidistant.

Because of the Persian Gulf and the Red Sea, the Mediterranean and the Indian Ocean came nearer to each other. The Red Sea is nearest to the Mediterranean and, therefore, it became a regular trade route with India.

Asia Minor and Arabia connected the Mediterranean with India by the land routes as well. In this region we have seen the carriers of Indian goods and their owners proceeding to the West. On this route many cities were also founded which flourished on account of their trade.

The Roman Empire was established in Asia Minor, Syria and Egypt, but Arabia was not under its control and the tribes of the Caucasus did not care for its orders. We have already discussed how the Śaka-Satavahanas and the Tamil States had established their authorities on the land routes and ports and though there were political turmoils in their domains this did not affect the trade of the country. To encourage foreign trade Kanishka adopted the standard of the Roman gold coins for his own gold issues. This was necessary because in that period the Roman coinage served as an international currency.

During the Ptolemy dynasty of Egypt Alexandria had turned into chief market for merchants from Europe, Asia and Africa. In the time of Augustus one route tried to avoid the Red Sea as far as posible but the second route faced its difficulties and dangers. To catch the first route the merchants by the way of the Nile river reached Kena and Keft. On the way to Kena they visited Port Mussel (Abu Shafar). By the way of Keft they reached Berenice, which was situated on Ras Benna on the way of Ummel Ketef. On this route travellers took their journey in the night and for their comfort these roads were provided with rest houses, armed guards and inns. In the early centuries of the Christian era the importance of the Berenice route lay in the fact that it passed though the regions where emerald mines were situated.

The ships sailing for seven days reached Heroopolit Gulf (Suez Gulf) where Ptolemy II had laid the foundation of Arisnoe. From there it reached Berenice and the harbour of Mussel. Not knowing the secret of the monsoon merchant ships following the coast often reached Ras Fartak and then the mouth of the Indus. In the way they made stops at Adulis (modern Zeila) and Massowa for African cargo. After that stopping in the east of Muza (Moza) they reached Ocelis and then crossing the strait of Bab-el-Mandeb they reached the Indian Ocean. Here in the Somali markets of Aden and Socotra they met Indian merchants. After that the merchants trading with India stopped at Cane (Hisn Ghorab) and Moza (Khor Reiri) situated at Hadramaut. From there they sailed straight to the port situated at the mouth of the Indus known as Barbaricum where they received Chinese, Tibetan and Indian cargoes. Then sailing on they reached Broach and from there they proceeded to Muziris (Cranganore) and Nelcynda (Kottayam). After that in search of pearls they travelled to the Pāṇḍya country and Chola Maṇḍala.

The Yemenites, Nabatacans, Himyars had their share in Indian trade and, therefore, they were greatly opposed to direct trade with India and Rome. On the Somali sea-coast in this age, the Arab-Africans had laid foundation to the Axumite Kingdom. Perhaps they prohibited Indians to proceed beyond Ocelis in the strait of Bab-el-Mandeb. These Axumites preferred to meet the Alexandrian Greeks at Adulis though there was a trade route between Abyssynia and Alexandria. In this region the Greeks, Arabs and travellers from India stayed.<sup>2</sup>

Owing to the constant warfare between the Sakas and the Parthians the difficulties on the land route increased. In order to avoid them Augustus made arrangements for the protection of the sea routes. The Himyars and the Nabataeans created difficulties in this arrangement but after the knowledge of the monsoon there was no necessity for such arrangements.

In the first chapter we have mentioned about the trade route which extended from Antioch to Balkh and India. In the age of Augustus, the Roman merchants from Selucia reached Ctesiphon, then passing Assyria and Kurdistan they reached Media. From there reaching Behistan they took the route to the Caspian Sea near Teheran. From here the route passing Heactompylos near Jirm approached Margian Antioch. From there the route was bifurcated. On leaving the Hindukush one route joined the Chinese silk route and the second turned towards India. The

Reman traders made little use of these routes. According to Pliny and Ptolemy the route turning east to Merv reached Samarkand and then crossed the Oxus. Another route proceeded from Merv to Balkh and from there to Tashkurghan which was the meeting place of the routes from India, the Oxus valley, Khotan and Yarkand. From here passing the Yarkand valley the route proceeded to Singan. The entire route was divided into four hundred stages.

For entering India from Balkh the Hindukush had to be crossed. After that passing Kabul, Peshawar, Taxila and Mathura the route proceeded to Pāṭaliputra. But those merchants who transacted business with Indian merchants only, they, taking the Grand Route turned to the south of Merv, thereafter by easy marches they reached Herat and from there proceeded to Kandhar. From Kandhar there were three routes to India viz. 1) south-eastern route which crossing the mountains entered India through the Bolan or Mula pass, 2) north-eastern route which passing through Kabul joined the silk route and 3) the Lasbela route which either following the river or the sea routes reached the Bay of Sonmiani and from there proceeded by the land or sea route to India.4

From those land routes at least in the time of Augustus several Indian embassies reached Rome. At least four such embassies are mentioned in the Latin literature, namely 1) the embassy from Puru country (the territory between the Jhelum and Beas) took with it to Rome serpents, monals, tigers and a letter written in Greek language, 2) the embassy from Broach was accompanied by a Buddhist monk named Germanos, 3) an embassy from the Chera country. It was reported in Rome that at Muziris (Cranganore) was built a temple in honour of Augustus and 4) an embassy from the Pandya country brought with it precious stones, pearls and an elephant. We know that in the time of Augustus commercial relations between India and Rome grew but in this the balance of trade was in favour of India from the very beginning and as a result of this Roman gold poured into the country.

It is evident from the Latin literature that from the very beginning of the Roman Empire the price of Indian goods was settled in Roman gold coins. It is also known that the Indian tiger, lion, rhinoceros, elephant and serpents were brought to Rome for circus shows. The Romans also liked Indian parrots, Indian fowls, Indian ivory and tortoise shells which were used for making ornaments and inlaying furniture. The Roman women wore Indian and Persian Gulf pearls. Herbs and spices also formed a very important part of the Indian commerce. Pepper, lycium, costus, bdellium, sugar and agaru were exported. We are also informed that the Romans used sesame oil in their food. Indigo was used as a colour. Cotton cloths were used as articles of wear and from ebony wood were fashioned furniture. Rice was regarded as an article of food and Indian lime, peach and some other fruits were used as articles of medicine. Many kinds of precious and semi-precious stones such as diamond, onyx, sardonyx, agate, carnelian, crystal, amethyst, opal, cat's eye, ruby, turquoise, garnet, etc. had very large demand in Rome. Rome had to pay for all these precious articles in gold that meant a great

strain on its finances. Tiberius tried to stop this drain of Roman gold but with no success.6

After the discovery of the monsoon, a voyage from Italy to India took sixteen weeks. The ships sailed from Mussel harbour (Ras Abu Somer) at the winter equinox. When the north westerly wind blew favouring travel to Africa and South Arabia, travellers for India and Sri Lanka started their voyage in July because crossing the Red Sea before the first September they got favourable monsoon wind which took them to the Arabian Sea with ease.

The writer of the Periplus took a ship for India which must have been an ordinary ship, provided with a lateen sail on the mast-yard. In the Indian seas time schedule had to be observed strictly because shipping in that period depended upon the trade winds. Ships pushed onward when their sails were filled with air. At that time the use of helm was not very essential. It was located between the prow and the stem. The helmsman sat on a platform on the stem. After Hippalus had discovered the monsoon wind it also influenced the use of helm. In the monsoon wind the helm was used a little off the direction of the wind and because of this the ship not sailing straight turned to the south. Sailing the ship in this way depended on the careful manipulation of the helm and the movement of the sail.

Roman merchants started on their voyage from Myos Hormos or Berenice (Periplus 3). This port in the first century A.D. was famous for the eastern commerce of Egypt. From there the ship sailed to Berber country in North Africa (Periplus 4). From there the ship reached Adulis where the port of Massowa is situated and which acts as a natural port for Abyssinia and the Sudan. In the interior of that territory a city named Coloe was famous for its trade in ivory. From here the ship sailed to the Bay of Opian which is now identified with Haukil Bay situated in the north of Ras Hanfila. From here obsidian was exported to Italy and Portugal and it was used in making glass.

In the above countries Egyptian linen, textiles from Arsione, ordinary dyed cloth, linen counterpanes with double fringes, crystal glass, cups made of agate or carnelian called Murrhine, iron, brass and flexible sheets of copper were available. Besides these articles they exported axes, swords, vessels, coins, some wine and olive oil.

Ariaca or the Gulf of Cambay exported to the ports of the Red Sea, Indian steel, cloths, belts, skin mats, cotton, monache, molochine or mallow cloth, tortoise shells and rhinoceros horns (Periplus 6).

From the Bay of Haukil the Arabian Gulf turned towards the sea and Avalites situated on its shore is identified with Zeila situated 79 miles from Bab-el-Mandeb. This place exported flint glass, sour grape juice from Thebes, a particular kind of cloth in demand by the Berbers, wheat, wine, and tin. From here were exported to Ocelis and Muza ivory, tortoise shells and little quantity of myrrh and bdellium. Situated at a distance of eighty miles from Avalites Malao in Somali-

land (Berber Port) where till recently caravans made journeys for trade with the interior, exported myrrh and bdellium.

Sailing from Malao the ship reached Mundus which is identified with Bandar Hais. After sailing for two or three days from Mundus the ship reached Mosyllum (Ras Hantara). This place carried a prosperous trade in cinnamon. After that passing Tokwina (Little Nile) and the Cape Elephant (Ras Fil) it reached Acannae (Bandar Ululah) After that came the Cape of Spices identified with the Bay of Guardafui. There was a danger involved in casting anchor here and, therefore, the ship caught in storm reached Tabae (Ras Chenarif). From here the ship sailed to Panao (Ras Binn) and it was thus able to save itself against south western monsoon. After this place it reached Opone (Ras Hafun) which is situated at a distance of 90 miles from Guardafui.

The above ports imported from Ariaka and Barygaza wheat, rice, ghee and sesame oil, wine, cotton cloth, belts, etc. (Periplus 14). Indian ships carrying cargo there exchanged their goods at Cape Guardafui. Some of them sailed along the shore and some proceeded to the west. According to the Periplus (25) Ocelis at the mouth of the Red Sea was the last station for exchanging goods because beyond this port the Arabs did not allow the Indians to proceed, but most of the trade between India and Guardafui was in the hands of the Indian merchants. A part of the business was commanded by the Arabs and in the first century A.D. some of the Alexandrian Greeks also shared in the Indian commerce.

After Opone in the south was situated Azania (Al-tabir). After the sandy banks came small sandy plains (sef) and after that came the sandy banks of Azania. Sailing on came Sarapion (Mogadishu) and Nicon (Barawa). The nomenclature Azania has survived in modern Zanzibar which could have derived from zang=black and bar=sea-coast. As we shall see later on perhaps this region was called in Sanskrit Gangana and Apara-gangana. After Azania came the island of Pyralae (modern Patta, Manda and Lamu). Behind these islands lay a safe sea route. After this the ship reached Ausanitic coast which derived its nomenclature from Ausan district in south Arabia. On the same coast was situated Menuthias (Monifia) from there ships sailed to Rhapta which identifies with modern Kilwa. The Arab sailors had full knowledge of this sea coast.

After Opone most of the trade was under the control of Muza whose port Massaria was situated on the Red Sea. To purchase Indian goods the Roman merchants did not come to this port but proceeded to Aden or Dioscordia (Socotra) where they met the Alexandrian Greek, Indian and Arab merchants. The Roman merchants while returning from India only made a very short stop at Mocha which was the chief centre of Arab merchants who sent their ships to Bharukachchha (Periplus 21). From here sweet rush and bol was exported.<sup>11</sup>

After Mocha crossing the strait of Bab-el-Mandeb the ships reached Diodorus (Perim island). After that came the Bay of Ocelis (a Bay situated to the north of the promontory of Sheikh Sayyid) which projects from the west of Arabia and is separated from Perim by a narrow passage. Indian sailors did not proceed beyond this port. The ships however proceeding to Endnemon, Arabia or modern Aden. The port of Aden was very famous in ancient time for its eastern trade. From here cargo was loaded on the ships sailing for the Mediterranean. After Aden the ships proceeded to Cana (Hisn Ghorab). After the discovery of the monsoon by Hippalus ships often avoided Cana. Those travellers who sailed at the end of the shipping season, spent their winter at Muza. Aden and Muza were chief centres of trade in bdellium which came here from Hadramaut which was known as the country bdellium. They also traded in storax and olive juice.

After Cana came the gulf of Sachalites which is now identified with the sea coast between Ras-el-Kalb and Ras Fartak. After that the ships passing Syagrus (Ras Fartak) reached Dioscordia (Socotra). Scholars find in this name the name of the Egyptian god Hor or Khor and it is possible that in the Khuramālī Samudra of the Suppārake Jataka Khura may be equated with Hor or Khor. Socotra from about the time of Abraham was the chief centre of international trade. Here the Egyptian merchants met merchants from Arabia, Africa, the Gulf of Cambay and the Rann of Kutch.<sup>12</sup>

After Socotra the ships came to Omana (the gulf of Kamar), Muza port (Khor-Reiri), the island of Zenobia (Kuria Muria), Serapis (Masira island) finally reaching Calaei island (Daimaniat) situated to the north west of Muscat. The name of Calaei has survived in modern Kalhat port. From here ships sailed to Apologus (Obulla port situated on the Euphrates) and passing Ommana (perhaps Al-mukabber) it reached the Persian Gulf. The ports in the Persian Gulf imported from India copper, sandalwood, teakwood, salwood and ebony. Passing the Persian Gulf the ships sailed to the Gulf of Gedrosia which extends from Ras Nu to Cape Monze and then crossing it reached Orae or the Gulf of Sonmiani. From here they sailed to Barbaricum, the port on the Sindh river which is now completely silted.

Before discussing the Indian ports it is necessary to know some facts about the trade of the Red Sea. A notable point in this trade was that the Arab and the Somali merchants with a transit understanding among themselves did not allow Indian ships to enter the Red Sea and, therefore, they did not sail beyond Ocelis.

But very soon the Arab and Somali merchants had to face the competition of the Abyssinian and Roman merchants with the result that shipping through the Red Sea was opened up to everybody and very soon Indian merchants reached the ports of Adulis and Alexandria straight. At least it is evident from the Malinda-Praŝna that Indian sailors had full knowledge of Alexandria. The Grecian merchants of the Roman Empire sailed straight to India and their ships hardly stopped in the Arab ports. They only made stops at Ocelis and after filling their ships with fresh water sailed straight to India. The western monsoon blowing behind drove the ships straight to the mouth of the Indus. The port of Barbaricum was perhaps situated in the middle of the seven mouths of the river. Perhaps this port was named after the Bavarias who are still found in Saurashtra.

We know from the *Periplus* (39) that the port of Barbaricum imported a great deal of thin clothing, figured linen, topaz, coral, storax, frankincense, vessels of glass, silver, gold plates and a little wine. On the other hand from this port were exported costus, bdellium, lycium, nard, turquoise, lapis-lazuli, seric skins, cotton cloth, silk yarn and indigo.

After Barbaricum ships sailed to Bharukachchha. The north western part of India according to the Periplus was Ariaka and according to the Ptolemy Larike. We have examined before the political and geographical conditions of these regions. The Rann of Kutch was known to Alexandrian Greeks as Eirinon which seems to be the Greek form of the Sanskrit irina. Like today, the water of the Rann was very shallow and ships had great difficulty in crossing it because of the shifting sands. In order to safeguard themselves against the Gulf of Baraca (Dwarka) ships sailed outside it, but if perchance they were drawn inside into the gulf, they were lost, for the waves were high and very turbulent, and the sea was tumultuous and foul, with eddies and rushing whirlpools. The bottom of some places was abrupt. At places it was so rocky and sharp, the anchor could not catch the bottom and even if it did, it was quickly cut off.

The Gulf of Broach was very narrow and at its mouth was a long narrow submarine rock. As the banks were low it was very difficult to navigate ships in the river (*Periplus* 43).

To sail the ships against these difficulties the fishermen in the king's service stationed at the very entrance of the gulf using large boats called trappaga and cotymba went as far as the coast of Saurashtra from where they piloted ships to Bharukachchha. They took them straight from the mouth of the Bay between the shoals with their crews and then towed them to fixed stations going up at the beginning of the flow tide and lying there till the ebb tide at anchor in the basins. These basins were deeper spots in the river as far as Bharukachchha. Because of these difficulties the entrance and departure of ships were very dangerous for those who had no experience of the port and who came there for the first time. For the rush of waters at the incoming tide was irresistible and the anchors could not hold against it. The result was that the ships caught by its force turned broadside and so driven on the shoals were wrecked. Even smaller boats overturned. The account given by the Periplus of the Rann of Kutch and the Gulf of Cambay and Broach has to be augmented further. The sandy desert of the Rann of Kutch is 140 miles long and sixty miles wide. During the rainy season the sea water enters it through the channels and leaves a sheet of water three feet deep, but because the Rann has a plain level the camel caravans could cross it in all seasons. These caravans for fear of very hot sun and mirages travelled in the night and for finding the right direction took help of the stars and the compass. In the historical times Kutch was an important centre of sea trade. Till recently the port of Mandvi situated in the south of Kutch carried on trade with Zanzibar.

The Periplus also informs us about the geographical formation of the Bay of

Broach. The promontory of Popica is identified with the Gopinath point and Baeones with Piram islands on the mouth of the Narmada which is covered with sand around which rises the stony reef sixty to seventy feet high. 12

Bharukachchha imported wine preferably Italian also Laodicean and Arabian; copper, tin and lead; coral and topaz; muslin and inferior sorts of cloth; bright coloured girdles, patkās on orbit wide, storax, sweet clover, flint glass, realgar and antimony, gold and silver coins which yielded profit were exchanged for the money of the country and ointment in a small quantity but not very costly. The foreign merchants brought for the use of the king very costly vessels of silver trays, beautiful girls for the harem, quality wines, thin clothing of finest weaves and the choicest ointments. The port exported spikenard, costus, bdellium, ivory, agate and carnelian, lycium, cotton cloth of all kinds, silk cloth, mallow cloth, yarn, long pepper and other articles brought to the port from various market towns of India (Periplus 49).

Bharukachchha had very intimate trade relations with Paithan the capital of the Satavahanas and Tagara (Ter) a famous town in the Deccan. The journey between Broach and Paithan took twenty days and from there Tagara could be reached in another ten days. One route started from Masulipattinam and the second from Vinnukonda. Both these routes met in the south-east of Hyderabad and then this route passing Ter, Paithan and Daulatabad reached Markind (Ajanta Hills). From here started a very difficult journey on the Western Ghat which traversing a distance of 100 miles reached Broach. This was the famous route of the Satavahana empire which naturally terminated at Kalyan. As we have seen above when the Kshatrapas invested Kalyan then this trade route was forced to turn and proceed to Broach. According to the Periplus (51) Paithan and Ter sent out a large quantity of carnelian, various kinds of muslin and mallow cloth.

Besides Barygaza near about ports of Suppara (Sopara) and Calliena were situated. In the time of the Periplus Kalyan was perhaps under the control of the Kshatrapas and, therefore, the prohibition of any trade from this port. Those Greek ships which cast anchor here were often put under arrest and sent to Broach (Periplus 53). After Calliena came Semylla (Chaul to the south of Bombay), Mandagora (Bankot on the mouth of the Savitri river), Palaepatmae (modern Dabhol), Melizigara (modern Jaigarh), Togarum (Devgarh) and Avrannoboas (Malvan) followed by the island called Sesecrienae (perhaps the rocks of Vengurla) and Aegidi (Goa or Anjidvipa). After that came Canaetae (perhaps oyster rocks) situated off the west of Karwar sea-coast and Chersonesus (Karwar); these ports were always in fear of pirates. After them came the White Island followed by Naura (Cannanore or Honvar) which was the first market and Tyndis (Ponnani) which was the first port in Tamilagam called Damrica. The famous port of Muziris in Kerala is identified with Cranganore and Nelcynda with the port near Kottayam (Periplus 53). In Muziris the Arab and Greek ships loaded with cargo cast anchor. This port was situated at a distance of fifty miles from Tyndis (Tundi), at the mouth

of a river. Nelcynda was situated at a distance of fifty miles from Muziris in the kingdom of the Pandyas.

After Nelcynda came Bacare which is identified with Porkad near Alleppy. Here the ships dropped down on the outward voyage to take on their cargoes; because the river was full of shoals and the market towns were situated in the interior (Periplus 55). In these ports they received large ships carrying great quantities of pepper and malabathrum. They also received in bulk coins, topaz, muslin in small quantity, figured linen, antimony, coral, crude glass, copper, tin, lead, small quantity of wine, realgar and orpiment and wheat for sailors. These port towns exported pepper which was produced in that region, pearls, ivory, silk cloth, spikenard, malabathrum and semi-precious stones of all kinds, diamond and sapphire and tortoise shell. Ships from Egypt came to this region in the month of July (Periplus 56).

Before the *Periplus* the ships proceeding from Aden and Cana followed the sea coast. Hippalus was perhaps the first pilot who inquired about the situation of the ports and the seas and how the sailors could take up a straight course in the sea. Therefore, the south western wind was named after Hippalus. From that time ships proceeding to Damarica via Cana and the Cape of Spices sailed a little off from the direction of the wind. The ships proceeding to Broach and Sindh sailed at three days distance from the coast, and from there, following the favourable wind, they sailed straight to Tamilkam (*Periplus* 57).

Cherabothra or Kerala exported large quantities of black pepper. At one time Kerala extended from Cape Comorin to the Karwar point, but in the time of the Periplus its northern part had slipped out of the hand of the Cheras and its southern part had been occupied by the Pāṇḍyas. Therefore, Kerala at that time consisted of the former Malabar, Cochin and northern Travancore. Tyndis was its northern point, but its most important port was Muziris. In this port the Roman and Arab ships exchanged Indian goods with Roman goods. They also made transactions in cash. According to Pliny, early merchants coming to Kerala transacted their business by sign language. It is also said that a temple was erected here in honour of Augustus. In the south of Muziris the ships of Nelcynda cast anchor at Porkad. In the time of the Periplus Nelcynda was within the power of the Pāṇḍyas and it may be due to the intention of the Pāṇḍyas to fgain the monopoly of the pepper trade. Pliny further informs us that those Greek merchants who reached Nelcynda were informed by the Pāṇḍyas that the supply of pepper at Muziris was much less than they expected.

The Pandya kingdom at that time was confined to Madura, Tinnavelly and part of Travancore. The Gulf of Mannar was once famous for its pearl fishery its famous centre being Colchoi (situated on the mouth of the Tamraparni river). Criminals were employed for pearl fishery. It seems that the writer of the Periplus did not proceed beyond Nelcynda because its accounts of the ports beyond Nelcynda are confused.

After this the Periplus mentions a mountain which could be identified with Varakallai or Anzengo Rocks on the sea coast of Pyrchon. After that appeared Paralia. The region extending from Cape Comorin was also a place of pilgrimage at that time. People came here to take holy bath and lead a pious life (Periplus 58-59). In Tamilkam the Cholas were most powerful and their empire extended from the Periar river to Nellore and Puddukottai and in the south up to the Vaigai river. Its capital Aragaru (Uraiyūr) which was destroyed in the seventh century was a part of Trichonopoly and was famous for its fine muslin. The Palk Strait was famous for its pearl fishery. The most important port of the Chola Mandala was Kaveripattinam or Puhar which was situated at the mouth of the northern branch of the Kaveri. Among the other ports of the Chola Mandala were Poduce (Pondicherry) and Sopatma. The recent excavations at Arikamedu near Pondicherry have yielded evidences that in the first century A.D. it was a flourishing port. Sopatma has been identified with Sopattīnam of the Tamil literature and it could perhaps be identified with Marakanam now situated between Madras and Pondicherry.17 In these ports the rafts known as sangara plied. The ships sailing from the mouth of the Ganga to Suvarnadvipa were known as Colandia.18

There was close trade relation between South India and Rome which is supported by the finds of many Roman coins in that region. These coins were not used as a currency but for their metal value only. The excavations of Virampatnam near Pondicherry have yielded evidence that this port imported, from a strange land situated at a distance of 5000 miles, wine, glass and engraved gems. As at Puhär there was a small colony of foreigners. Then Poduca of the Periplus and Poduca emporium of Ptolemy<sup>19</sup> is Pondicherry.

The sangar raft was made of single logs tied together. The outriggers were made of sawn timber. These two boats were joined together with a cabin. A boat named jangar still plies on the sea coast of Kerala (Periplus 60). Perhaps sangar is derived from Sanskrit sanghāta. The Jaina Angavijjā mentions one of the kinds of boats as sanghātam.

Colandia is perhaps of Malayali origin. Rajendralal Mitra, however, derives this word from Sanskrit kolantarapota.<sup>20</sup> Perhaps these big ships sailed from Korkai to foreign countries.

The sturdy construction of these two masted ships plying on the Chola Mandala is evident from some of the coins of Śrī Yajña Śātakarni. The appearance of a chankshell and a fish along the ship symbolises the sea. This ship raked at both ends is provided with riggings and sails—Fig. 5 (two on the right). Perhaps such types of coins were struck at a later date and the ships appearing on them could be compared to the mausala boats on the sea coast of Madras. The bottom of these ships was made of planks sewn together by coconut fibre and it is flat and caulked with tar. This primitive boat is able to withstand the lashings of the waves better than even the bigger ships. The Periplus did not know much about Sri Lanka. It was, however, known as Palaesimundu and also Taprobane.

It exported pearls, precious stones, muslin and tortoise shells (Periplus 61). Pliny (VI. 22.24) has given a good account of the shipping of Sri Lanka. According to him the sea between India and Sri Lanka was shallow and at places its depth was not more than fifteen feet, but at places it was so deep that it was difficult to cast anchor there. Therefore, the ships plying in this region had both stem and stern fashioned in such a way so that it was not necessary for them to turn in narrow waters. The ships weighed 3000 amphora. The sailors while taking their ships to Taprobane did not follow the stars for direction as they could not see the polar star. For navigation they took with them some birds which were released from time to time to reach the land. The season of shipping lasted for only four months. These ships did not sail for hundred days after the winter equinox which was their winter (the south west monsoon blows from June to October only).

It is evident that in the first century A.D. the method of travel indicated above must have been undertaken by only a limited number because according to the Buddhist Sanskrit literature which could be placed in the early centuries of the Christian era the pilots piloted their ships with the help of the stars.

The Periplus has mentioned only summarily the cities and ports after the Chola Mandala (Periplus 62). He draws our attention to Masalia or Masulipattinam and informs us that it was famous for its fine muslin. Dosarene (Tosali) or Orissa was famous for its trade in ivory.

The Periplus (63-65) also gives us some information about the country lying beyond the mouth of the Ganga. By the Gangetic country the Periplus perhaps means Tamluk and some other parts of Bengal especially Hooghly. To this region as well China and the Himalayas exported silk goods and malabathrum. It also manufactured fine muslin. From here were exported to Suvarnadvipa tortoise shells. Lying to the north of the Gangetic plain are mentioned China and Thinae perhaps Nanking. From here by the sea and land routes were exported silk and malabathrum. But very few Chinese merchants came to this country, in their place Besatae who were perhaps Kiratas brought once a year from China malabathrum and sold it silently near Gangtok.

It is evident from the above account that in the first century A.D. Indian shipping had very much developed. In ancient times Indian ships sailed to Malaya, east Africa and the Persian Gulf beyond which they could not proceed owing to the restraints put by the Arabs. In the first century A.D., with the permission of the Kshatrapas, some big ships sailed to the Persian Gulf. From the north western sea-coast of India ships sailed to north eastern Africa upto the point of Guardafui and transacted business there. But even for that they had to take permission of the Arabs and Axumites. Upto this century the Arabs were the monopolists of the western trade and, therefore, they did not allow Indian merchants beyond Ocelis though Axumites allowed them the use of this port. They were, however, free to sail on the Indian sea-coasts. From Barygaza some big ships sailed to Apologus and Ommana and some ships sailed to the port of Somaliland and Adulis.

The sailors of cotymba and trappaga ships sailing upwards from Broach escorted foreign ships to that port. In Sindh cargo was loaded from the port of Barbaricum. The goods from Tamil Nad for foreign countries were loaded in the ports of Cochin, but some Alexandrian ships reached Nelcynda. In the seas of Sri Lanka ships of thirty-three tons sailed and, therefore, the voyage between the mouth of the Ganga and Sri Lanka was very much reduced (Pliny II. 8.2). Ships sailed regularly on the Chola Mandala. From the sea-coast of Kerala ships sailed to the ports of Camara, Poduce and Sopatma. To the north of the Chola Mandala in the domain of the Satavahanas two masted ships sailed. Further north Tamluk was known for its heavy shipping.

In this age Alexandrian Greek ships were fairly large and were provided with armed guards. However, a time came when Indian states not only stopped the armed foreign boats coming to the Indian sea coast, but also issued orders that a foreign merchant could send only one ship to India. 22 After the issue of this order Egyptian merchants also began constructing very large ships which used seven sails. Their ships weighing 200 to 300 tons could also carry a large number of passengers. This kind of Egyptian boat has been represented in one of the sculptures of Palmyra; it is equipped with sails, masts, decks, cabin, and oars (Pl. I a). Scholars are of the opinion that this ship represents a type of ship sailing between India and Mesopotamia and a figure standing on its stem perhaps represents a merchant.21

As the trade relations between Egypt and India developed many Roman citizens began settling down in this country. In a Roman Papyrus of the first century A.D. the letter of a woman named Indicon appears which she had written to her friend. This Indicon was perhaps the wife of some Alexandrian Greek settled in India. The Greeks settled in Tamil Nad were not true Romans but Roman subjects. The trade between Rome and India was carried through the intermediaties such as Alexandrian Greeks, Syrians and Jewish merchants and some of them had settled in India. From the excavations at Virampatnam near Pondicherry it is evident that this port had perhaps a sort of a colony of the Roman merchants.

After the discovery of the monsoon how Indian shipping developed is not known. But one thing is certain that Indian merchants in order to export cinnamon to east Africa began building larger ships. After the establishment of the Roman empire there was a great improvement in the commerce of this country. As we shall see later on even in the Indian literature of that period chief ports extending from China to Alexandria have been mentioned. After the discovery of the monsoon the trade monopoly of the Arabs broke down and many Indians began sailing to Egypt. In the time of Vespasian, Dion Chrysostom saw in the port of Alexandria Indian merchants with other foreign merchants. He further informs us that he heard many strange stories about India from those Indian merchants who came to Egypt. They were looked down by their fellow countrymen. It seems that even in that age people believed in the Gautama Dharmasūtra, which forbids sea voyage. An inscription found in the temple of Pan at Benenice near Rhodesia informs us that there was an Indian traveller named Subāhu who sailed between

India and Alexandria. But in Rome proper except for envoys, slaves, mahaouts and acrobats no other Indian went.25

The changes in the Indian trade routes in the second century A.D. have been indicated by Ptolemy. He informs us about the countries occupied by the Kushānas in north western India. He mentions the seven mouths of the Indus. Patala also existed by that time but the markets of Barbaricum had shifted to Monoglosson. After that the names of the cities in the interior are mentioned including Mathura and eighteen cities of Kashmir. The Gangetic valley is scarcely touched because the Roman travellers had not reached there. Ptolemy also describes the western sea-coast and informs us that Semylla (Chaul) was no longer an ordinary market but like Broach it became an emporium (putabhedana). The reason for this may be the increase in cotton trade. At that time Chashtana exercised authority on nine cities in the interior. His capital was at Ujjain and perhaps Alexandrian traders reached that city. A group of seven other cities which included Paithan and Tagara was within the domain of Pulumavi II (circa 138-170 A.D.). The cave inscriptions of Nasik inform us that some of them were donated by Ramanakas. The Greek merchants might have reached beyond Sardonyx mountains (Rajpippala) and the diamond mines. 26

Ptolemy also mentions about the pirates of the Konkan and many cities in that region. Nitra (Pigeon Island) was a big port. It seems that the fear of the pirates, who in the time of the Periplus extended their activities from Kalyan to Ponnani river, had perhaps stopped in the time of Ptolemy but we cannot be sure about this. Ptolemy also mentions the states in Tamilkam. It is evident from him that in the second century A.D. Muziris was the only lawful port of Kerala. Nelcynda and Bacare no longer enjoyed their former position. Tyndis had survived only in the form of a city. In the group of the cities Punnati (perhaps a place near Seringapattnam or Kittur) was the chief source of beryl. Carcura which was once known as Vanji or Karvur is now identified with Karvur near Cranganore. It was the capital of the Cheras in the time of Ptolemy. It seems that the beryl mines of Coimbatore in Tamil Nad were open equally for everybody.<sup>27</sup>

We can make a guess that the Cheras had the monopoly of the pepper trade; the Pāndyas were the monopolists of pearl trade and the Cholas of beryl and muslin. According to Ptolemy the domain of the Pāndyas was a small one and on its sea coast were two ports Elancoros or Elancon (Quilon) and Colchi. Their capital was Cottiara (Kottaru) and they exercised their control over the Cape Comorin. Their biggest city was Madura. According to Ptolemy after the Cape Comorin and the Bay of Calligicon (the Gulf of Calimere) the Romans and Alexandrian Greeks sailed frequently on the eastern sea coast of India, but at that time the Cholas were on the decline. Their capital was at Orthura (Uraiyūr). Ptolemy observes that the Cholas at that time were on the run. Perhaps this might have been due to the occupation by the Pāndyas of the sea coast of Uraiyūr and the Palk strait where pearl fisheries were located. According to Ptolemy the Chola ports

were Nicama (Nagapattinam), Chaberis (Käveripattinam), Saburas (Cuddalore), Poduce (Pondicherry), and Malanga (Krishnapattinam). On the sea coast ports controlled by the Sätavähanas were Maisolia (Masulipattinam), Kontakossyla (Ghantasala) and Alosygne (Koringa). Ptolemy also knew about many cities of Andhra.<sup>29</sup>

He also mentions many cities of the Bay of Bengal. But among them Paloura (Dantapura), the capital of Kalinga and Tilogrammon are cities but not ports. Ptolemy places Paloura to the north of the apheterium (samudraprasthānapattanam) at the mouth of the Ganga and from there ships leaving the coast sailed to the deep seas. According to Sylvain Levi Paloura or Dantapura was situated in the neighbourhood of Chicacole and Kalingapattinam. Ptolemy does not describe the sea coast beyond the Krishna river because leaving the mouth of Maisolia (Krishna River) the ships sailed straight to the ports of Orissa.

The Adamas river is identified with the Sank branch of the Suvarnarekha or Brahmani river which yielded diamonds till the Mughal period. Sabarae (perhaps Sambhalpur) also yielded diamonds and also exported malabathrum, nard, muslin, silk and pearls. Perhaps the Greek merchants came here for business. Ptolemy mentions nineteen cities in this region in which Gange (Tamluk) and Palibothra (Pataliputra) were the chief.<sup>21</sup>

Ptolemy gives a good account of Sri Lanka which he calls Salike. He tells us that it exported rice, dry ginger, honey, sugar, beryl, sapphire, gold and silver. At that time Sri Lanka had two ports namely Moduton (Kokelay) and Tarakhoi (Manar). Before Ptolemy very few Roman travellers reached Sri Lanka. After Ptolemy the trade relations between Rome and India ceased to be direct. But we are informed by Cosmas Indikopleustes that in the sixth century A.D. Sri Lanka had become the chief centre for the Indian sea trade.

Before completing the story of the sea trade between India and Rome we would like to point out the dangers lurking in the deep seas. The danger of cyclone for ships was ever present and the sailors also feared sharks and other aquatic animals. Pliny (IX. 2) also supports this view. He describes the swordfish and the eels in the Indian Ocean. These animals came out during the rainy season and even the ships of Alexander had to face them. No amount of shouting drove them away and to ward them off the sailors had to use pointed spikes. In that period people believed that some of these creatures had the head of the horse, the ass, and the bull. The Indian Ocean was also known for its gigantic tortoise. The Indians also believed in these strange creatures of the ocean because in the bas-reliefs of the first and second centuries A.D., these sea creatures have been represented. It is also apparent from the representations of these creatures that sea merchants had their hand in raising up ancient stupas.

In the second section of the seventh part of his geography Ptolemy describes countries in the trans-Gangetic region. While travelling in eastern India, the

Greek traders wanted to earn more money by establishing direct contact with other countries. Also there was a great demand for the tortoise-shells of the Malava Peninsula available at the mouth of the Irawadi river in Rome. In the time of Ptolemy some Greek traders had started living there and Ptolemy's information in his geography was based on their reports. According to him the fountain of the trans-Gangetic region was Kattigara (perhaps Canton). Travellers starting from Paloura reached Sada (perhaps Thade in the north of Sandoway) and then passing the Cape Negrais reached the Malaya country. There was another route to this country by which travellers starting from Alosygne (Koringa) in Masulipattinam district crossed the Bay of Bengal and reached Malaya. To reach Zabai (near the southern point of Cochin China) a traveller named Alexander took twenty days and only after some time he reached Kattigara. There has been a great confusion in the geography of the further India because by mistake Ptolemy took the sea coast after the Gulf of Siam in the south and, therefore, China had turned to the west, Directly to the east of the Ganga was located the market of Barakoura (Arakan and some part of Pegu) in which were located Berabonna (Gwa) or Sandoway and Besynga (Bessein; Pali Vesinga). There were two ports in Suvarnabhūmi, namely, Takola (Tokopa in Siam), and Sahang (Stunga or Thatung). The Gulf of Sabarakos extended from the Strait of Malacca to the Gulf of Martaban. The Perimolic Gulf is identified with the Gulf of Siam. After that the "great gulf" indicates the Chinese sea. South Siam and Kambuja (Cambodia) were infested with pirates. The Thinobastae (Bungapasoi) near Bangkok was a port. 33 Sailing to the Archipelago from the south a traveller passed Nicobar, Neas, Sibiru, Nassau Island, Iabadios (Java) a source of gold, whose capital was Argyre. This Iabadios could also be identified with Sumatra.34

The third century A.D. saw the downfall of the Roman empire. Trouble rose on its communication system. The sea-route from Rome to India closed down and the commerce again passed to the Arab and Axumite merchants. The Sassanians established their control on the Persian Gulf and on the silk land routes. In the later Latin literature India again passed into the realm of fancy.

We have commented above on the trade relations between India and Rome. We have only occasionally been informed about the articles of export and import. "The Periplus of the Erythraean Sea" by Schoff and Warmington's "The Commerce between the Roman Empire and India (p. 145-272) have given long lists of these articles of export and import. The Indian literature is almost silent on this point, therefore, it becomes all the more necessary to make an inquiry about the articles of export and import of this country.

## Articles of Export and Import

Slaves

Indian slaves reached Rome even before the establishment of the Roman Empire. The presence of the Indian slaves in the procession of Ptolemy Philadelphos is mentioned. Some slaves also reached Socotra. Some Indian mahaouts and astrologers also reached Rome.

### Birds and Animals

Indian birds and animals were exported to Rome by the land route but their number was very limited. The Romans, except for parrots and monkeys, imported other birds and animals only for exhibition. A silver dish from Lampsacos according to Rostovetzeff belongs to the third century A.D. (Pl. I b). In this dish Mother India is shown seated on a chair whose feet are made of ivory. Her right hand is in the kataka gesture which means significance, and in her left hand she holds the bow. She is wearing a very thin muslin sārī and two pieces of sugar cane are sticking out from her coiffure. Around her are seen Indian animals and birds including a parrot, a guinea fowl and two hounds, lying at her feet are seen a tame tiger and a cheetah.

It is apparent from this dish the regard which the Romans had for India for Indian articles. Indian lions and leopards were exported to the Parthian country. The Indian envoys at times presented tigers. Rome perhaps also imported hunting dogs from India. According to Herodotus a Persian king had allotted the produce of five villages for the maintenance of his Indian dogs. A papyrus of the third century B.C. informs us that a Greek named Zenon had written two elegies on the death of his Indian dog who had saved the life of its master from a wild boar. The Rāmāyaṇa mentions fine dogs bred in the Kekaya country. India exported at times elephants and rhinoceros to Rome.

India exported to Rome at least three kinds of parrots. The export also included cobras and small pythons. Pliny and the *Periplus* inform us that Rome imported from India Chinese skins, furs and coloured hides from the port of Barbaricum in Sindh. Goat skins were exported from north western India to East Africa. It is possible that these skins included some from Tibet.

Kashmir, Bhutan and Tibet produced goat wool for shawl weaving. Perhaps it was known as Marcocoramcana. Perhaps Marcocoram here stands for Karakoram. Rome imported only uncoloured goat hair. In the beginning it also imported some musk. Ivory from India and Africa was used for inlay work in statues. In Rome ivory was used for making figures, furniture, book covers, musical instruments and ornaments. Indian ivory reached Rome by the land and sea routes. In the time of the *Periplus* African ivory was exported from Adulis, but Indian ivory was exported from Broach, Muziris, Nelcynda and Dosarene (Tosali, Orissa). It seems that ivory figures of Indian make at times reached Rome. One such figure has been found from Pompeii.

The Romans had a great liking for tortoise-shell from the Indian Ocean but the best tortoise-shell came from Suvarnadvipa. In Rome it was used for veneering. The tortoise-shell was exported from Muziris and Nelcynda. It was also available in Sri Lanka and other islands and was purchased by the Greek merchants.

The Romans purchased ordinary pearls from the Red Sea and better quality of pearls from the Bahrein island in the Persian Gulf, but most of the pearls came to Rome from India especially from the Gulf of Mannar. Both the Periplus and Pliny knew that pearl oysters were fished in Kolkai in the Pandyan country, and the work of fishing them was entrusted to criminals. These pearls were sold in the market of Madurai. The pearls sold in the markets of Uraiyūr came from the Palk Strait. The Greek merchants, besides buying pearls of good quality from the Gulf of Mannar and the Palk Strait, also purchased ordinary pearls from Tamluk, Nelcynda and Muziris. The fashionable women of Rome were ever eager to possess pearls. The pearl-shells were also used for inlay work.

It is mentioned that in the sixth century South India exported chankshell. Chankshell found from the Gulf of Mannar was used for making vessels, ornaments, musical instruments etc. Even in ancient days the chanceutters of Korkai and Kaveripattinam were famous.

Rome imported Chinese silk by the silk routes passing through Iran. In the time of the *Periplus* Barbaricum, the port of Sindh, also exported silk goods to Rome. But more costly textiles reached Broach from Balkh. Muziris, Nelcynda and other markets on the Kerala coast received their silk goods from the mouth of the Ganga passing the eastern sea coast. In this way the Chinese silk either came by the sea routes or reached the Bay of Bengal from Yunnan, Assam, and then along the Brahmaputra river, or it was exported by Singan-fu-Lan-Chow, Lhasa and Chumbi valley to Sikkim and finally reached Bengal.

Rome perhaps imported lac from India, Siam and Pegu. Some Indian herbs were used as medicine in Rome. Owing to the difficulties of communication their cost was very high.

Black pepper had an important place in the trade between India and Rome. It was exported from Muziris, Nelcynda and Tyndis located on the Keraia sea coast. We are informed by the Tamil literature how the Greek traders bought black pepper for gold. The long pepper was exported from Broach.

Besides black pepper dry ginger and cardamom were also exported to Rome. The Romans used cinnamon as a spice and incense. Cinnamon was imported from China, Tibet and Burma. The Arabs, in order to hide the source of cinnamon declared it to be a product of Arabia and Somaliland. Malabathrum, perhaps, was imported by the land routes from China to India and then reexported to Rome where it was used as a spice. The oil of nard was kept in alabaster jars in Rome. According to the *Periplus* the nard coming from Pushkaravati to Broach was of three kinds. The first came from Attock, the second from the Hindukush and the third from Kabul. The Greek traders also included the oils of lemon grass and

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ginger grass along with the nard oil. The so-called nard oil exported from Barbaricum, Tamluk, Muziris and Nelcynda was of mixed kind. The costus produced in Kashmir was used in Rome for ointments and medicine and for perfuming the wines. It was exported from Patala, Barbaricum and also through the land routes.

In the time of Pliny Rome imported chaplets made in India and other countries. These chaplets were made either from the leaves of nard or variegated silken strips treated with perfume. The Mahāvastu<sup>36</sup> calls these kinds of chaplets as gandha mukuṭa which were sold by florists.

India also exported cloves in some quantity and frankincense came from Balkh. Asafoetida reached Rome through intermediaries. Indigo was exported from Barbaricum, lycium was the resin of barberry growing in the Himalayas which had yellow colour. It was bagged in the camel and rhinoceros hair and exported from Barbaricum to Rome. Sesame oil and sugar were exported to East Africa.

We have seen above that India exported cotton textiles to Rome from very ancient times. Before the discovery of the monsoon the quantity of the exported cotton cloth was limited, but after its discovery the demand for cotton goods grew tremendously. Indian muslin was famous in Rome, According to the Periplus the best muslin was known as monache; sagmatogene and molchine were ordinary kind of rough cotton cloth. These two varieties along with the mallow cloth were exported from Broach to East Africa. Textile material in some quantity came from Ujjain and Tagara to Broach which exported them to Arabia and Egypt. Sindh also exported a variety of muslin. The Argaritic muslin of Trichinopoly was very popular. Sri Lanka and Masulipattinam also manufactured good muslin but the best muslin came from Vārāṇasī or Dacca. The finest muslin was known in Latin as Vetus Textilis or Nebula. In the variegated textiles from Memphis and Panopolis the influence of Indian pattern is apparent.

India exported to Rome all kinds of wood for medical and architectural purposes. According to the *Periplus* Broach exported to Apologos and Ommana sandalwood, teak, black wood and ebony. Ships were made of teak in the ports of the Persian Gulf. Furnitures were made from black and rose wood. At first these woods were exported from Broach, but later on Kalyan began exporting them. Broach exported sandalwood in large quantities. The agallochum from eastern India, Assam, China and Malacca had great demand outside. Makarwood was also exported. India also exported coconut oil, plantain, peach, apricot, lemon or lime, and some quantity of rice and wheat. The Arabs had also begun importing the following articles from India—camphor, the pulp of purging cassia, <sup>37</sup> guinea grain, nutmeg, coconut, tamarind, the stone fruits, myrobalan, exudation of *Deodar*, pan and betelnut, etc.

Pliny calls India as "Mother of Gems". The Romans loved precious stones and India was the only country at that time which could export all kinds of gems.

Among these precious stones diamond occupied a predominant place. For some time only kings could afford to buy it. In the first century Muziris and Nelcynda exported diamonds to Rome. It seems that in the second century A.D. diamonds from Mahäkosala and Orissa also reached Rome.

Sard and carnelian were very well known as semi-precious stones but in the Roman empire their use was restricted. According to Pliny Indian sard were of two kinds (1) hyacinthine sard and (2) red sard from the Ratanpur mines. According to the *Periplus* Greek traders bought sard, carnelian and agate in Broach. The Romans often regarded them as stones from Kirman. But according to Pliny for the export to Egypt they were brought from Ujjain to Broach. This fact indicates how the Parthians and Arabs had made a secret of this trade and how for the first time we know from the *Periplus* that "myrrhina vasa" were made in India and exorbitant prices were charged in Rome for these carnelian cups.

In ancient times the best agate came from Ratanpur. Fired agate was also exported to Rome. There was great demand for onyx and sardonyx in the time of Augustus. These were used for making cups, ornaments and figures. In the first century A.D. the demand for nicolo had increased. In this century India exported to Rome chalcedony, chrysoprase, plasma, serpentine, blood stone, heliotrope, jasper, haematitis, touchstone, cat's eye from Sri Lanka and Cambay, aventurine from Bellary, amethyst from Sri Lanka, yellow and white crystal from India and Sri Lanka, beryl, corandum and sapphire from Sri Lanka, Kashmir and Burma, ruby from Burma, Sri Lanka and Siam, spinel ruby from Badakshan, beryl from Coimbatore, aquamarine from the Panjab, lapis-lazuli and garnet and spinel ruby from Badakshan, tourmuline from Sri Lanka, Bengal and Burma.

According to the *Periplus* the coral from the Mediterranean was imported through Barbaricum, Broach, Nelcynda and Muziris. The import of coral was so heavy in India that in the time of Pliny the Mediterranean reefs had practically been exhausted. The Greek merchants exchanged coral for Indian pearls.

It is also mentioned that the eastern part of the Roman empire exported certain textile materials to India. According to the *Periplus* some fine and figured linen came from Egypt to Barbaricum. Some very fine cloths deeply dyed were exported to Broach for the use of the King; *Kamarbands* were meant for others. Textile material also came from Arisnoe, Spain, northern Gaul and Syria.

Wine had an important place in the trade between Rome and India. Wines from Laodicea and Italy were exported to the ports of Africa and Arabia. Barbaricum also imported some ordinary kind of wine. Perhaps the wine from Italy, Laodicea, and the date-wine from Arabia came to Broach, but people there liked the Italian wine best. This foreign wine exported from Broach also reached Muziris and Nelcynda.

Liquid storax came to Bharukachchha and Barbaricum for medicinal

purpose. India imported lead from Spain, copper from Cyprus, tin from Lusitania and Galacia, antimony from Kirman and eastern Arabia and from Persia and Kirman it got manganese and orpiment.

Rome also exported some lamps and images to India. The excavations at Brahmagiri have yielded some such figures.

The Roman empire also exported some glassware. Some crude glass was also exported to Muziris and Nelcynda for manufacturing looking glasses and vessels.

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# TRAVELLERS IN BUDDHIST SANSKRIT AND LATER PALI LITERATURES

(FROM THE 1ST CENTURY TO THE 10TH CENTURY A.D.)

S WE have seen in Chapter VI that for the history of the land and sea routes of A India, we have to depend mostly on foreign literature, but fortunately in Jain, Buddhist and Sanskrit literatures as well, we have important data about travelling and trade routes. But unfortunately, this material has not been properly sifted and studied. Professor Sylvain Levi has thrown important light on the geography and trade routes of this country based on indigenous sources. The ancient Tamil literature also provides information on the Indian trade in the early centuries of the Christian era. The Sanskrit Buddhist literature could be assigned to the early centuries of the Christian era, but to determine the chronology of the Jain literature which includes Sutras, Bhashyas, Churnis, Chhedasutras and Tikas is not so easy. Nevertheless, this voluminous literature should be dated not later than the sixth century A.D., the Tikas, however, being later; the same holds good about the Tamil literature also. The Brihadkatha Sloka Samgraha of Buddhasvami may also be dated to the fifth or sixth century A.D. but it also includes materal which has been borrowed from the Brihadkathā of Gunadhya written in the first century A.D. The same may be said of the Vasudevahindi written by Sanghadasa, though it should be noted here that it has material which is nearer to the Brihadkatha as it has borrowed more material from this source than the Brihadkatha Śloka Samgraha. Using there sources, we can draw a convincing picture of the trade routes of India and the experiences of the travellers.

The early Indian literature under question makes occasional references to the trade routes. In somewhat later Indian literature these routes have been classified. This classification also appears in early grammatical literature, the Arthaiastra and other literary sources as well. We shall see later on that in the Gupta period the classification of trade routes had become conventional. The classification of the land and sea routes in the Mahāniddesat was at first noted by Professor Sylvain Levi. The writer of the Mahāniddesa commenting on Atthakavagga (Tissameyasutta) on the word parikissati (one which causes pain) observes that facing all difficulties a wayfarer reached Gumba, Takkola Takkasilā, Kālāmukha, Maraṇapāra, Vesunga, Verāpatha, Java, Tamali, Vanga, Flavaddhana, Suvaṇṇakuṭa, Tambapaṇi, Suppara, Bharukachehha, Gangaṇa, Paramagangaṇa, Yona, Paramayona, Allasanda, Marukāntāra, Ja(va)ṇṇupatha, Ajapatha, Meṇḍhapatha, Śankupatha, Mūsikapatha and Vettādhāra, but he did not achieve the peace of mind anywhere. In the Milinda Praina as well some geographical information about Indian ports

and cities is available. The first reference says "O King, he like a rich sailor after settling the dues in the ports sailing his ships travelled to Vanga, Takkola, China, Sovira, Surattha, Alasanda, Kolapattana, Suvarnabhumi and other ports."

In the Digvijaya Parvan of the Mahābhārata as well we get the names of the Indian and foreign ports. They appear in the conquest of the south by Sahadeva. Starting from Indraprastha he taking the Mathura-Malwa route reached Māhishmati (M.B. II.28.11). From there he came to Potanaputra (Paithan) (M.B. II. 28.43). It seems that from here he took the sea route. In Sagaradvipa (Sumatra) he defeated the Mleccha kings, Nishadas, cannibals, Karnaprāvaranas and Kalamukhas (M.B. II. 28. 44-45). In his conquest Bhima as well after conquering Bengal reached Tamralipti (M.B. II. 27.22). From there he took a voyage to Sagaradvipa and after defeating its ruler he received in gift sandalwood, precious stones, pearls, gold, silver, coral and diamonds (M.B. II. 27.25-26) From there he sailed back to Kollagiri (Korkai) and Murachipattana (M.B. II. 27.45). From there he sailed to Tamradvipa (Cambay) (M.B. II. 27.46). In the way perhaps he conquered Sanjayantı (Sanjan) (M.B. II. 27.46). After that during the course of his conquest he conquered the Pandyas, Dravidas, Odras, Kiratas, Andhras, Talavanas, Kalingas and Ushtra-Karanikas, all situated on the eastern sea-coast of India (M.B. II. 27.48). The Mahābhārata also knew about Antākhī (Antioch), Romā (Rome) and Yavanapura (Alexandria) (M.B. II. 27.49). In this way we can see that the Sabhavarvan of the Mahabharata knew the sea routes between Tamralipti and Bharukachchha and also Sumatra, Java and other places. There is no doubt that Kollagiri in this list stands for Korkai and Murichipattanam is definitely Muziris of the Periplus. The mention of Antakhi, Roma and Yavanapura indicates the sea route to the Mediterranean passing through the Red Sea.

In the story of Charudatta in the Vasudevahindi the sea routes of India are mentioned.4 Charudatta, son of a rich merchant, keeping bad company lost all his wealth. However, with the consent of his family he decided to undertake a sea voyage to recoup his lost fortune. Starting from Champa Nagara he reached a townlet named Disasamyaha. There his maternal uncle had purchased cotton and other goods for export,5 and he entrusted the goods to Charudatta. As ill luck would have it, the cotton caught fire and Charudatta with great difficulty escaped with his life. Later on after loading his bullock-carts with cotton and yarn he reached Utkala (Orissa) and purchasing cotton there proceeded to Tamralipti. On the way his caravan was looted and his bullock-carts were burnt down. With great difficulty he could save his life. Resuming his journey again, he reached Priyangupattana where he met a sailor named Surendradatta who turned out to be a friend of his family. During the course of his voyage, he visited Kamalapura (Khmer), Yayana (Yaya), Dvīpa (Jaya), Simhala, western Barbara (Barbaricum) and Yayana (Alexandria) and earned enough money from those places.\* Unfortunately, when he was sailing along the Saurashtra coast his ship was wrecked and floating with its timber he managed to reach Umbaravati. There duped by an alchemist he fell into a well and after being rescued from there resumed his journey.

With the help of his friend Rudradatta, Charudatta reached Rajapura and there taking some ornaments, lac, red cloth, bracelets etc., he reached the mouth of the Indus. From there proceeding in north-eastern direction he crossed the countries of the Hūṇas, Khasas and Chīnas. Finally reaching the jankupatha of the Vaitādhya mountain, he encamped there with his party. After taking their dinner, other members of the caravan took bags of tumburu powder. While climbing the jankupatha, when their hands sweated, they dried them with that powder because if one slipped from the jankupatha, he was sure to meet with death. While following this route the goods were put in the bags and tied to the bodies. This jankupatha was located on the Vijayā river. After crossing it they reached Isuvegā river (the Oxus river) and camped there.

A novel method has been suggested to cross the Oxus. When the northerly wind blew and the canes growing on the opposite bank bent, where Charudatta stood, he caught hold of such a cane and when the wind stopped, the canes straightened and thus Charudatta crossed over to the other side of the river. After this, Charudatta reached the country of the Tankanas. There he camped on a hill river. On the advice of a guide, the fire was lit, and the merchants removed themselves from there. Seeing the fire, the Tankanas came there, and in exchange for their goods, they left goats and food, and then as a token of their departure they lit another fire and departed.

Following that hill river, the caravan reached ajapatha, where steep ascent could be negotiated by goats only. After this ascent was over, the goats were killed on the other side and skinned. The merchants then covered themselves with those skins and then the gigantic Bherunda birds taking them to be lumps of meat borne them to Ratnadvipa. As we shall see later on, the route taken by Chārudatta must have been the same as in the Brihadkathā of Guṇāḍhya which is lost.

The Brihadkathā Śloka-Samgraha gives another version of the adventures of Chārudatta now named as Sānudāsa which, however, were confined to Suvarnadvīpa only. His journey started from Priyangupattana which was probably located in Bengal. From there he proceeded to Chīnasthāna or China and from there he came to Malaysia. In the way he visited Kamalapura which may be identified with Cambodia, as Kamalapura seems to be the sanskritised form of Khmer or Camara of the Arab geographers; it appears that Vaitādhya here stands for Tashkurghan and the Vijayā river stands perhaps for the Jaxartes. Ishuvegā is definitely the Oxus. Among the people of Central Asia, Chārudatta met the Khasas of Kashagar, the Hūnas of Monogolia and then in the end he met the Chinese people. He also transacted business with the Tanganas of Central Asia. From there he visited Java and Sri Lanka. The Paschima Barbara was Barbaricum and after that Alexandria is mentioned.

The ports mentioned in the Mahaniddesa were far flung. They started from the Far East and ended in the west. In this list, it is not necessary to discuss Jave (Java), Suppara (Sopara), Bharukachehha (Broach), Surattha (some part on the

Saurashtra coast), Yona (the Greek world) and Allasandha (Alexandria). In the above list of the ports, Gumaba appears first. The variants are Gumbha and Kumbha. This port cannot be identified but it reminds us of Nikumba appearing in the Milinda Prašna.\*

The second name Takkola also appears in the Milinda Praŝna. Ptolemy (VII. 2.5) also mentions Takkola which has been identified with Takuopa situated on the Gulf of Bandong in Siam. Whatever might have been the case in that period, in the later period (227-277 A.D.), on the basis of a voyage of a Chinese envoy, we should search for Takkola on the western coast of the Malaya Peninsula to the south of the Isthmus of Kra. It appears that Takkola or Kakkola exported black cardamom, cloves and agallochum.

It is also worth noting that Takkola or Kakkola also appears in India. There is a village named Takkolam in the south of Madras and the ancient name of Chicacole (Srikakulam) has been also derived from Kakkola. From here many migrants proceeded to Malaysia.<sup>10</sup>

The Mahāniddesa list mentions Vesunga. According to Ptolemy (VII. 2.4) after the promontory of Tamala, Besagngetai was located on the Bay of Sarabos. The Vesunga port was located on the mouth of the Vesunga river, somewhere near Pegu in the north of the Gulf of Martaban. Prof. Levi while identifying Vesunga also mentions the sea route from the coast of Orissa to Burma. Palour of Ptolemy or Dantapura was the capital of Kalinga. But its aphetrium was Charitrapura. According to Hsuen Tsang, travellers started their sea voyages from here. According to Levi, Charitraputra was situated to the south of Puri. Palour directly faced the mid-country between Akyab and Sandoway on the Burmese sea-coast. Vesunga was located somewhere near Rangoon; Pegu, Martaban and Takkola were somewhere uear the Isthmus of Kra. Verapatha could be identified with Berabai of Ptolemy which was located somewhere near Tavoy.

Takkasilā appearing after Takkola could not be identified with Taxila of the Panjab. Ptolemy places the mouth of Tokosanna river to the south of the mouth of the Katabeda river located in the south of Chittagong. Takkasilā should be searched somewhere in this region.<sup>12</sup>

In Mahāniddesa, Kālāmukha appears after Takkasilā. Perhaps here some Kirāta tribe is meant. The Kālāmukhas appear in the Rāmāyaņa (IV. 40.28) and in the conquest of Sahadeva in the Mahābhārata. Nothing positive could be said about the identification of Maraṇapāra.

After Java the Mahaniddesa mentions Tamalim (variants, Kamalim, Tammalim, Tammuni, Tambralinga). Kamalim reminds us of the Kamalpura of the Vasudevahindi, but Professor Levi identifies it with Madamalingam of the inscription of Rajendra Chola. This region should be near Pahang in the Malaya Peninsula.<sup>16</sup>

After Tamalim, appears Vanga (variant, Vankam). It does not stand for Bengal but it could be identified with Banka islands facing the estuary of Palembeng contiguous with Sumatra. The strait of Banka is the regular sea route between Malaya and Java. Banka was famous for its tin mines.15 In Sanskrit as well, Vanga stands for tin and it is possible that the name of this metal was derived from the place of its origin. It is difficult to identify Ailavaddhana because this name does not appear anywhere in Indonesia. According to Ptolemy (VII. 2,30), however, in the east of Java, there were three islands named Satyr which were supposed to be inhabited by men with tails. Professor Levi is of the opinion that keeping in mind the story of the tail, the Mahaniddesa named those islands as Ailavaddhana because aila or aiga in Sanskrit means a sheep.16 Suvarnakūta and Suvarnabhūmi should be taken together. Suvarnabhūmi was a generic name of the region to the east of the Bay of Bengal. But Suvarnakūta is a geographical name. According to the Arthaiastra (II. 2.28) Suvarnakudyā exported red or white sandalwood named tailaparanike. The agallochum of that place was of a shade between yellow and red. The best sandalwood, however, came from Maceasar and Timor, but the best agallochum came from Champa and Annam. Suvarņakudyā also manufactured dukūla and patorna stuffs. Suvarnakudyā has been identified with Kin-lin of the Chinese account which was situated in the west of Funan.17

The Mahāniddesa, after naming these ports, names the Indian ports. After Tambaparni (Tamraparni), comes Sopara followed by Bharukachchha. Surattha may perhaps be identified with the port of Dvarka. The Mahaniddesa does not mention ports on the eastern sea coast, but on the basis of other sources it could be said that in this age Tamralipti, Charitrapura, Kaveripattinam and Kolapattanam were chief ports on the eastern sea-coast.18 Among the ports on the Kerala coast, Murichipattana is naturally the Muziris of the Periplus. After the sea-coast of Saurashtra on the coastal region of Sindh on the mouth of the river Sindh was situated the port of Sovīra according to Vasudevahindi and Milinda Prašna. Perhaps here Sovira indicates the port of Barbaricum. The Vasudevahindi perhaps names it as Paschima Barbara. After the sea-coast of Sindh appear Gangana and Aparagangana which could be perhaps identified with the sea-coast of east Africa. Gangana could be equated with Zanzibar and Aparagangana perhaps stands for the seacoast of Azania. Yona here indicates the Greece proper and Parama-Yona is perhaps the Asia Minor. Allasanda is the port of Alexandria in Egypt and Marukantara stands perhaps for the desert route from Berenike to Alexandria. On this route travellers made their journey during the night and arrangements were made on it for rest-houses and proper supply of food.

After Marukāntāra there appears the categorisation of the routes in the Mahāniddesa. They are Jannupatha (variant, Suvanna or Vannu), Ajapatha (goat track), Mendhapatha (ram track), Šakunipatha (bird path), Chhattpatha (umbrella path), Vamsapatha (bamboo path), Šahkupatha (spike path), Mūsikapatha (rat path), Darīpatha (cave path) and Vettachāra (cane path).

We have already noted that ajapatha and sankupatha are mentioned in

ancient grammatical literature. They are also mentioned in a story of Sanudasa in the Brihad Katha Śloka-Samgraha.19

Sanudasa was the son of a merchant of Champa. In his childhood, he received good education but in his youth keeping bad company he was enticed by a courtesan. After the death of his father he was appointed as the head of the merchant guild (*iresthipada*), but even after holding this important post he could not give up his bad old habits and within a short period lost all his fortune. Grieved at the poverty of his family he took a vow not to return to his country before earning sufficient wealth.

From Champā Sānudāsa came to Tāmralipti. <sup>20</sup> On his way he met some travellers in tattered shoes and umbrellas who entertained him with fruits and vegetables. Travelling in this way he reached Siddhakachchhapa where he met one of his relatives. This gentleman entertained him and gave him money to travel to Tāmralipti and also entrusted him to a caravan.

On the way to Tāmralipti Sānudāsa heard a great commotion. When he made inquiries he was told that the guards Khaṇḍacharmamuṇḍa from Dhātakībhaṅga-priatijñā mountain were boasting of their valour. One of them even blurted forth that if he met robbers, he would sacrifice them to the goddess Kālī. In the mean-while a party of Pulindas attacked the caravan and losing their courage the boasting guards decamped. The caravan became dispersed and with great difficulty Sānudāsa could reach Tāmralipti. There he met his uncle Gaṅgadatta who wanted to dissuade him from his perilous journey offering him some money, but Sānudāsa did not care for any charity, and informing a pilot that he was a jeweller persuaded him to take him on his ship. On an auspicious day, after paying his respects to the gods, the Brahmans and elders, the ship weighed anchor.

Ill-luck, however, still pursued Sānudāsa. His ship was wrecked and floating with a timber he managed to reach ashore. From here that part of the story begins which tells us that he met a woman named Samudradinnā. As she was the daughter of the Indian merchant Sāgara and a Greek mother, nobody would marry her. Very much dejected at this, Sāgara started for Alexandria but again in the way his ship was wrecked. Somehow Samudradinnā managed to reach ashore. When she came to know about Sānudāsa, she told him that she had collected large number of pearls. On that deserted island they lived on fish, turtle and coconuts; cloves, camphor, sandalwood and betel leaves were also available in plenty there.

One day Samudradinnā told her husband to follow the custom of the ship-wrecked merchants (bhinna-pota-vaṇija-vṛitta)<sup>21</sup> and raise the distress flag on a tree and ignite fire to attract some ship which could thus effect their rescue. Samudradinnā's suggestion was fruitful and a small boat (upanaukā) took them to a big ship. Samudradinnā's pearls were also brought to the ship and it was agreed that from their sale proceeds half was to be given to the pilot. The pilot also performed the legal marriage of Samudradinnā and Sānudāsa.

Their adventures, however, had not come to an end. The ship which carried them was also wrecked and though Samudradinna was washed away, Sanudasa somehow managed to reach the shore. At that time his whole capital was tied to his belt and some pearls were hidden in his coiffure. On that shore grew in plenty plantain, coconut, jack fruit, pepper, cardamom and pan leaves. Reaching a village he asked for its name but the people answered "dhanninu choliti", which in broken Tamil means "We do not understand your language". Sanudasa taking the help of an interpreter reached one of his relatives. There he came to know that he was in the Pandya country whose capital Madurai was situated at the distance of a yojana.

The next morning, Sānudāsa passing the plantain jungle and after walking for two kosa saw a hospice (satram) where some foreigners were being shaved, some were being massaged and some were being shampooed. In the evening the keeper of the hospice inquired about Sānudāsa and was informed that his maternal uncle Gangadatta was very much disturbed after hearing about the ship-wreck. He had sent messages to all forests, forts, hospices and ports (velātaţapura) but even then Sānudāsa had not informed him about his whereabouts.

The next day Sānudāsa visited the jewel market of Madurai. Here, after evaluating an ornament he received some money. For a month he continued the business honestly, but later on he thought of earning more money by investing a small amount. He purchased long staple cotton (guṇavāna) and arranged it in seven heaps but unfortunately the cotton caught fire. It was the custom of Madurai that the owner of the house which caught fire jumped in it and gave up his life. For fear of his life, Sānudāsa fied to a jungle. There he met a man speaking in the Gauda language. He enquired from him about Sānudāsa but he informed him that he had died in the fire, thrown into it by the Pāndyas. Hearing the news, his maternal uncle also wanted to burn himself to death, but in the meanwhile Sānudāsa reached Champā and the life of his uncle was thus saved.

But owing to his wanderlust and the desire to earn money Sanudasa would not stay for a long time with his uncle. After a short while he boarded the ship of one Achera sailing for Suvarnadvipa. The ship reaching there cast anchor and the merchants filling their bags with food (pātheyasthagikā) tied them to their backs and hanging the leather bottles on their shoulders and holding their staves climbed the mountain. This was vetrapatha. Professor Sylvain Levi<sup>24</sup> explains vetralatā as a staff. The travellers climbing the mountain did not bend with the help of the staves, but kept themselves straight. The Vettāchāra of the Mahāniddesa also gives this explanation.

The travellers in search of gold did what they were told. Reaching the mountain peak, they stayed the whole night there. In the morning they saw a river whose banks were crowded with oxen, goats and sheep. Achera forbade the travellers to touch the river as that would have turned them to stone. Across the river the bamboos growing there pushed by the wind bent to the other side of the

river. They were asked to cross the river with the help of those bamboos. This was the venupatha25 known as vamsapatha in the Mahāniddesa.

The river turning men to stone is also mentioned in Saddharma Smrityupasthānasūtra. 28 On its bank grew the kīchaka bamboos which brushed against each other in the strong wind. The Rāmāyaņa (IV. 44. 77-78) also mentions this river. It was difficult to cross it and only the Siddhas could do so with the help of the bamboos. The Mahābhārata (II.48.2) also mentions the Śailodā river and kīchaka bamboos growing on its banks. Ptolemy informs us that after Sinai came Seris (China). To its north the country was unknown and full of marshes, in which the rushes grew with whose help people reached the other side. From this region passing Balkh and Tashkurghan they reached Palibothra (Pāṭaliputra) (Ptolemy I, 97-41). Here we find the source of that Pauranic tradition which turned the marshes of the Lobnor falling on China-Balkh route into a folklore. This tradition, following the stories of the caravans, entered the Greek and Indian literatures. Ctesius and Megasthenes also mention the river in which nothing could float. The name of this river as Sil as given by Megasthenes is equated with the Śailodā by Professor Levi. 27

According to the Saddhamapajjotika28 in the Vamsapatha bamboos were tied to a tree and climbing the tree other bamboos were added to them. Thus repeating the process a bridge was obtained and thus the forest of the bamboos was crossed over.

It could be safely assessed on the basis of Indian and Greek literatures that the Sailodā river was situated in Central Asia and not in Suvarnabhūmi. The Rāmāyaṇa and the Mahābhārata locate it in between the Meru and Mandara and in its neighbourhood lived Khasas, Pāradas, Kulindas and Tangaṇas. Professor Levi identifies Meru with the Pamirs and Mandara with the mountain range in the upper courses of the Irrawady. The Matsya Purāṇa (120, 19-23) places the source of the Sailodā in the Aruṇa mountains. But according to the Vāyu Purāṇa (47, 20-21) this river had its source in a big lake lying at the foot of Muṇjavata mountain. This river flowed between the rivers Chākshus and Sītā which emptied in the salt sea. The Chākshus river is probably the Oxus and Sītā perhaps the Tarim. Therefore, in the opinion of Professor Levi, the Sailodā river could be identified with the Khotan river. The story of the things turning to stone falling in this river, perhaps indicates the blocks of jade found in this river and carried to far off places.

The connection of kīchaka with the Śailodā is a new word in Pauranic literature. Professor Levi derives the word kīchaka from the Chinese. The export of bamboos from the provinces of Kwang-si and Se-chwang in China to Balkh is mentioned by Chang-Kien in the second century B.C.<sup>20</sup>

After crossing the Sailoda, Sanudasa followed a narrow track with deep ravines on both sides. Achera gathered the dry and wet wood and lighting it caused dense smoke. Seeing it, the Kiratas began assembling from all sides. They had

armours made of the goat and leopard skins, and live goats. The merchants exchanged their goods with saffron, red and blue cloths, sugar, rice, red lead, salt and oil. After that the Kirātas armed with staves mounted their goats and returned to the track from which they had come. Those merchants who wanted to acquire gold from the gold-mines followed the same track which was so narrow that they had to march in a single file guided by a man armed with a spear.<sup>21</sup>

After transacting business the party returned. In the file Achera occupied the sixth place and Sanudasa, the seventh. The party proceeding further heard hustling in the wood. A fight ensued between the two parties of merchants and Achera's party threw the other party into the ravine. A young boy implored Sanudasa to save his life, but the hard hearted Achera in order to save his party, compelled Sanudasa also to push him down the hill.<sup>32</sup> After this incident, the party of Achera reached the Vishnupadiganga where they offered water to their manes. After taking their food and rest, Achera ordered the merchants to kill their goats and cover themselves with their hides. This was done and gigantic birds taking them as lumps of meat carried them to Suvarnabhūmi. In this way Sanudasa reached there, earned sufficient wealth and returned happily to his home. Here perhaps iakunipatha is indicated.

Before completing the story of Sānudāsa, it should be noted that there is great resemblance between his story and the story of Chārudatta in the Vasudevahindī. It is apparent that the sourch of both the stories was in the Bṛihadkathā of Guṇāḍhya. According to the Vasudevahindī the location of this story is Central Asia, but according to Bṛihadkathā-Śloka-Samgraha it is Malaysia. The mention of the Śailodā river, the exchange of goats and sheep in the story of Sānudāsa, makes it clear that his journey was in Central Asia and not in Malaysia. In the Gupta period when the importance of Suvarṇabhūmi grew then the location of the story seems to have been transferred from Central Asia to Suvarṇabhūmi.

Besides the Mahāniddesa, the tracks are also mentioned in early Pali Buddhist literature. The Milinda Praśna mentions vettāchāra or vetachara, śańkupatha and the ajapatha, 33 but the Vimanavatthu (84) throws some important light on them. It is said that merchants from Anga and Magadha once travelling in Sindhu-Sovira lost their way in the desert (vannupathassa majjham; the Ja(va)nnupatha of the Mahāniddesa). A Yaksha revealing himself told them "For the sake of earning money you travel across the oceans, on vannupatha, vettāchāra, śańkupatha, rivers and mountains."

The Purāṇas also give some indication of these tracks. The Matsya Purāṇa (115. 56-59) observes that the Nalinī flowing to the east crossed kupathas, the pools of Indradyumna, kharapatha, vetrapatha, śańkhapatha, ujjānakamarūn and kuthabrāvarana and then falls into the salt sea near Indradvipa. The Vayu Purāṇa (47-54 ff) also repeats the same information but in the place of kupatha it inserts apatha and in the place of vetrapatha it inserts Indraŝańkupatha, and in the place of Ujjānakamarūn it inserts madhyenodyānamaskarān. In this way the Nalini

flowing to the east crossed difficult tracks, the great pool of Indradyumnasara, the ass track, vetra or Indrapatha and ŝańkha or ŝańkupatha (the spiked track). In this way the Matsya Purāṇa gives the correct reading of the vetrapatha and the Vāyu Purāṇa gives the correct reading of the ŝańkupatha. The kharapatha could be compared to the aajapatha of the Mahāniddesa. The desert in which the river Nalinī flowed could be identified with the Takalamakan desert.

Important light is also thrown on the tracks mentioned in the Mahāniddesa by its commentary Saddhamapajjotikā. According to it, the traveller taking the sahkupatha, after reaching the foot of the mountain tied a crampon in a knot and threw it up and when it got firmly fixed, he ascended to that point with the rope. Here he made a hole with a diamond drill (vijirāggena lohadandena) and nailed a peg there. Then disengaging the crampon he again threw it upward and then climbing to that point again made another hole. Then holding the rope with the left hand, he uprooted the first peg with his right hand with a wooden hammer. In this way he climbed the mountain top and then contrived a way to get down. For that he at first firmly fixed a peg there and tied a leather bag to it and then sitting himself there he gradually descended. \*\*

It is necessary to note here that in modern times the diamond drill was invented in 1862, when a channel had to be bored through the Alps. The engineers consulted a watchmaker who advised them to bore the rocks by diamond drills. But the Saddhammapajjotikā informs us in no ambiguous terms that the Indians knew the use of diamond drill as early as the eleventh century.

According to the Saddhammapajjotika, chhattapatha was a sort of a parachute. The traveller holding a leather umbrella, which was inflated with air, treaded down the earth like a bird.

TT

In the first part of the present Chapter we tried to explain the knowledge that the Indians had acquired about the land routes. But in the Sanskrit Buddhist literature we have ample evidence on which we can base their experiences on the Indian land and sea routes. Their historicity cannot be proved as they all appear in stories, though there is little doubt that the stories incorporate the true experiences of travellers. Merchants returning from their travels recounted their experiences in big cities, and taking advantage of these accounts, the story tellers as well incorporated them. The Vinaya Vastu manuscript found from Gilgit also throws some light on the internal road system of the country. The first route is supposed to have been taken by the Buddha in his travel to Kashmir. During the course of his travels, he visited Bhrashtala, Kantha, Dhanyapura and Naitart. However, these place names cannot be identified. At Śādvalā he initiated the Nāgas Aśvaka and Punarvasu and Yakshinis Nali and Udarya. From here he proceeded to Kuntinagara where he suppressed Kunti Yakshini who devoured children. At Kharjurika he saw children playing with miniature stupas made of earth and foretold that five hundred years after his death, Kanishka would raise a huge stupa in his honour. 26

The journey of the Buddha in the Surasena country throws some light on the road system of that region. In the beginning of his journey he at first visited Adirajya which could be identified with Ahichhatra in Bareilly district, U.P. From here, taking the Kasganj-Mathura road he reached Bhadrasva and from there he reached Mathura. Here he prophesied that after hundred years of his death two brothers, named Naţa and Bhaṭa, would raise a stupa at Urumunda Hill (Govardhana). He further prophesied about the birth of Upagupta. Here the Brahmans opposed him but the Brahman Nilabhuti offered prayers to him. This recognition put an end to the opposition. 37

The Buddha reached Mathura on Nakshatrarātra. The presiding Mother Goddess of the city, taking his arrival as an impediment in her worship, stood before him without clothes, but the Buddha put her to shame by saying that it did not behove a lady<sup>38</sup> to do so. The presence of the Mother Goddess of Mathura is also supported by Ptolemy. So far it was supposed that Ptolemy speaks of Mathura as the home of the gods, but Tarn has tried to prove that the word used by Ptolemy could only be translated as goddess.<sup>39</sup> If his view is correct, then the presence of the Mother Goddess of Mathura is proved, like her presence at Pushkaravati. According to Tarn, perhaps the name of this Mother Goddess was Mathura. The Buddha has mentioned five demerits of Mathura, namely, the banks of rivers being flooded (utkūlanikūlān), the countryside full of thorns and pegs (sthūla kanṭakapra-dhānāh), sandy and rocky land, people eating in the last quarter of the night and the presence of many women.<sup>40</sup>

Mathura was also known for its many Yakshas. Here the Buddha subdued the Yaksha Gardabha who devoured children (Dhenukāsura of the Bhāgavata) and the Yakshis, Ālikā, Bendā, Maghā and Timisika (perhaps the Iranian goddess Artemis).41

From Mathura the Buddha reached Otalā and from there proceeded to Vairabhya, Veranjā of the Pali literature in south Panchāla. Here, he converted many Brahmans.<sup>42</sup>

On the route from Pańchala to Saketa were situated Kumaravardana, Krauńchanam, Manivati, Śalavala, Śalivala, Suvarnaprastha and Saketa. From here, the Buddha proceeded to Śravasti.

Jivaka Kumarabhritya after receiving his education at Taxila on his return journey passing Bhadramkara (Sialkot), Udumbara (Pathankot) and Rohitaka (Rohtak), reached Mathura and from there taking the northern route and passing Vaišali reached Rajagriha.46

From the above indications, it is evident that even in the early centuries of the Christian era there was not much change in the directions of the routes though many new cities appeared which were not known at the time of the Buddha.

The Sanskrit Buddhist literature also gives some information about the travel

on land routes. Even in the early centuries of the Christian era, the difficulties on the roads were the same as in previous centuries. There was always the fear of dacoits on the roads and the ferry men realised their fares before they took the travellers on their boats across the rivers. 46 Great hardship was involved in crossing the deserts. At times, there were boat bridges for crossing the rivers. The Divyavadāna informs us that on the route from Rajagriha to Śravasti Ajataśatru had built a boat bridge47 (nausankramana). In the territory of the Lichehhavis as well there was a bridge on the Gandak river. According to the Avadānasataka48 the bridge on the Ganga was regularly visited by bad characters.

The Grand Route was regularly frequented by horse traders from Afghanistan and the Panjab. It is said that horse traders of Taxila always visited Vārāṇasī for selling their horses. Once robbers attacked and dispersed a horse merchant's caravan and stole several horses.49 Mathura was a great centre of horse traders. It is | m ? related in the story of Upagupta that once a horse trader from the Panjab came to Mathura with five hundred horses. He was so rich that as soon as he reached there he decided to engage the services of the most costly courtesan of the city. 50

Most of the merchants paid lawful duties but there were some who took recourse to smuggling. It is related at one place in the Divyāvadāna, at that these smugglers arranged the matter in such a way that the customs officers even after strict scrutiny were unable to catch them.

In this connection a story informs us that on the frontier of Magadha and Champa there was situated a Yaksha shrine whose bell began tolling if some persons wanted to smuggle the goods. But one of the Brahmans of Champa firmly decided to carry some goods without paying the duties. He secreted a pair of garments in the hollowed handle of his umbrella. When the caravan which he had joined at Rajagriha reached the customs house, the customs officer realised the duties on the goods of the merchants (sulkasalikena sarthah sulkikritah). But as the caravan moved on, the bell began tolling and thus the customs officer realised that somebody had not paid his dues. He again rummaged the goods of merchants but without success. In the end he began passing merchants one by one and in that way the trick of the Brahman was found out. Because, as soon as his turn came, the bell began tolling. But even then it was difficult to detect where he had secreted his goods. In the end when the customs officer promised that he would not charge the duties, the Brahman revealed his secret.

We have seen above that in the early centuries of the Christian era how the shipping had developed both in the east and west and what part Indian merchants played in its development. They earned sufficient profit in their shipping to Suvarnabhūmi, but besides earning profit, they laid the foundation of Indian culture in Viet-Nam, Indonesia and Burma. In laying the foundation of this culture, the Buddhists and Brahmans played equal part. It is stated at one place in the Mahāvastu,52 that in ancient times there lived a Brahman Guru who had five hundred disciples at Varavali. He had a very beautiful daughter named Śri. Once the teacher

of that Brahman guru wanted him to despatch to Samudrapattana some of his disciples for performing a Yajña. There was every hope of realising good sacrificial fees if he went by himself or sent somebody else in his place. The guru summoned his disciples and announced that one who proceeded to Samudrapattana could marry his daughter. One of the young disciples who loved Srī proceeded there. After the sacrifice was over, the merchant who had invited him paid enough gold and silver as his fee.

The above story reveals certain new facts. The Varavali of this story may be identified with Veraval on the Saurashtra coast. Samudrapattana, where the sacrifice was held, most probably stands here for Sumatra. There is nothing strange about this story because in Borneo and other places sacrificial posts  $(y\bar{u}pas)$  have been found which prove that the Brahmans from this country proceeded to those lands for performing Yajn is.

Textiles, spices and aromatic goods were the chief articles of trade between India and Indonesia. In a very incorrect list in the Mahāvastu³³ of plain and coloured cloths, the dukūla of Kašī, the silks of Bengal, linen and fine muslin and the mats made of strips of skin are mentioned as articles of trade. After these articles, are mentioned the ports and the countries which exported and imported cloths. Vanarustā here probably stands for Vanavāsa (North Kanara), Tamakūṭa could perhaps be amended to Hemakūṭa as we have already seen that the dukula of Hemakudyā was famous. Subhūmi stands for Suvarṇabhūmi and Tosala for Tosali in Orissa. Kola here stands for the port of Korkai in the Pāṇḍya country and Machira definitely stands for the Muziris of the Periplus and Murichipaṭṭana of the Mahābhārata.

It is also a notable fact that Purna the famous disciple of the Buddha belonged to the guild of sea merchants at Sopara, which was even in early Buddhist times the most famous port on the western sea coast of India. From here the land route crossing the Western Ghat and passing through Nanaghat reached the Godavari valley and passing the Deccan plateau reached Ujjayini and from there proceeded to the Gangetic Valley.

The Divyāvadāna54 relates the beautiful story of the monk Pūrņa who began his life as a merchant and later on accepted Buddhism and became a monk. It is related that Pūrņa was the son of a rich merchant of Sopara who had three wives and three other sons. In his old age being neglected and insulted by his family, the old man married a slave girl who later on became the mother of Pūrṇa. From his very childhood Pūrṇa was interested in business as he saw his brothers undertaking long sea voyages. Influenced by them he asked the permission of his father to accompany them on a voyage, but the father refusing permission advised him to look after his business. Accepting his father's advice obediently he began managing the shop and shared the profits with his brothers, who were very jealous of him. After the death of his father they made him to look after the business of the port. In this new line as well Pūrṇa proved his worth. After some time he

became the head of the merchant guild and then decided to undertake a long sea voyage so that he could see new countries and meet new peoples. His voyage was announced by the beat of drum. It was also given out that those merchants who were ready to accompany him would not be liable to pay any taxes. In this way he performed six voyages without any trouble. One day merchants from Śrāvastī met him at Sopara and requested him to undertake the seventh sea voyage. At first he refused their request under the pretext of the fear for his life, but the merchants persisted and he had to accept their proposal. Before this voyage, Purna had heard about the Buddha from the Śravasti merchants. After he returned from the voyage his brothers wanted him to marry but having decided to become a monk he refused their request. Accompanying a caravan he reached Śrāvastı and sent a messenger to the famous merchant Anathapindika who thought that Purna wanted to transact some business, but when he heard that Purna had decided to become a monk he took him to the Buddha. The acceptance of Buddhism by Pūrņa has been simply related and is untouched by any miraculous event. As the high waves agitate the ocean, similarly the heart of a sailor is agitated without any reason and he often leaving his business turns a missionary. It seems that loneliness lasting for many months and the vagaries of nature fill the heart of a sailor with certain compassion which bursts forth in great religious fervour. This factor was applicable to Purna as well. It is apparent from the dialogue between Purna and the Buddha that in spite of many difficulties Purna was determined to carry out his mission. When the Buddha inquired about the field of his mission, Purna pointed out to Śronaparanta which may be identified with Burma. The Buddha informed him about the cruelty of the people there, but this did not deter Purna to carry out his mission.

It seems that impressed by the miraculous powers of Purna the merchants began to regard him as the presiding saint of the sea. This is evident from the



Fig. 6. Ship, Ajanta, 5th cent. A.D.

voyage of Pūrṇa's brother. Acting against the advice of Pūrṇa he undertook a voyage in search of sandalwood. After reaching an island he cut down many sandalwood trees. Infuriated at that the presiding Yaksha of the island raised a storm in which Pūrṇa's brother almost lost his life. But as soon as he remembered Pūrṇa for succour the storm abated and he and his comrades returned safely to their country.

The Pūrņa Avadāna has been represented in a wall painting in cave II at Ajanta (Fig. 6). 55 The painting represents several episodes from the life of Pūrņa such as his meeting with the Buddha and his acceptance of the faith. But the most important incident depicted

in the painting is the sea voyage of Bhavila, Pūrṇa's brother, in search of red sandalwood. The sea is full of fishes and two mermaids. The ship is large and equipped with sails and the twelve water pots indicate that the voyage was to last a long time. But the bow and stern bear the dragon symbol and near the oars a seat has been provided for the helmsman. In the stern there appears a mast within a square, perhaps it served to hoist the guide sail. As we have already observed the best sandalwood came from Malaysia. It has been mentioned that once merchants sent to Višākhā Mṛigāramātā, a famous character in Buddhist literature, bundle of sandalwood (chandana gaṇḍikā). Its quality was decided by testing the root and tips of the sandalwood. For this a simple experiment was suggested by Višākhā. If the sandalwood was immersed in water, its root settled at the bottom and the top remained floating. This sandalwood reminds us of ūdbargī of the Arabic literature.

The gośirsha was yellow sandalwood which yielded a lot of profit to Pūrņa's brother. According to the Ibn al Baytar (1197-1248) it is maqāsirī. Malaya also produced better quality of sandalwood. Salāhat (a port of Java), Timor and Banda produced equally good sandalwood. The maqāsirī sandalwood grew in Celebes. 57

The Buddhist Sanskrit literature informs us about the dangers of the sea voyage. Frightened of the calamities of the voyage the women of the household of merchants tried to dissuade them not to undertake a perilous sea voyage, but when they found them firm in their resolve, then for their welfare and safe return they took a vow to worship their gods as an act of thanks-giving. The Avadānasataka informs us that the wife of a sea-merchant in Rajagriha took the vow that after the safe return of her husband, she would offer a discus to the temple of Narayana. After his safe return she kept her vow with great pomp and show. 54

Bearing in mind the troubles of the sea, merchants did not carry women with them. However, it is related in the Divyāvadāna<sup>50</sup> that once a woman travelling on a ship with her husband gave birth to a male child who was named Sammudra as he was born at the sea. Even in the early centuries of the Christian era Indian ships were not very strongly built and, therefore, ship-wrecks were frequent. Those frail ships were unable to withstand the shocks of whales, makaras and dolphins and high waves and were wrecked. The high waves also broke them to pieces. The sea pirates dressed in blue scanned the sea in search of their preys. The aboriginals inhabiting many isolated islands also attacked and looted them. People also believed that the sea was the abode of gigantic serpents which attacked the ships.

After the ship-wreck there was no other escape except offering prayers to family deities. According to the *Mahāvastu* the travellers from sinking ships floating with the help of water-pots, hollow gourds and dismembered timbers tried to save their lives.<sup>61</sup>

Some minor details about Indian shipping are also available in the Buddhist Sanskrit literature. We are informed that after casting anchor the ship was tied to a peg (vatrapāša). \*2 The anchor kept the ship stable in the deep sea. \*2 So far as my knowledge goes, the only mention of the sea chart or the log book appears in the Brihad-Kathā Śloka-samgraha only. \*4 Monahara in his sea voyage, after determining the geographical position of the Śringavāna hills and Kunjaranagara entered his notes in the log book (sampuţakeikhan).

The pilots and sailors had their own guilds. Aryasura has given a very vivid account of the nautical training of Suparagakumara, the head of the guild of pilots. As a very accomplished pilot (sārathi) he managed to learn the lessons within a short time. Fully conversant with the movement of the stars he seldom lost his destination. The knowledge of astrology made him aware of impending calamities. He had an instinctive knowledge of good or bad weather. He had studied the sea thoroughly and his knowledge was based on the observation of different species of fishes, different colours of the sea creatures, the condition of the sea coasts, and the study of sea birds, marine rocks etc. He never slept while piloting the ship. In the summer and rains equally he moved his ship forward and backwards (aharāṇāpaharana) and in this way he took his passengers safely to their destination. It is mentioned at one place in the Milinda Prašnass that the pilot took full care of his yantra, and for fear of others touching it he kept it sealed. There is hardly any doubt that the yantra here stands for the compass. However, it may be noted here that according to the present belief, the Chinese invented the compass at a much later date.

The success of the sea voyage depended much upon the alertness of the sailors. The Milinda Prašna informs us that the Indian sailor (kammakāra) was fully conversant with his duties and responsibilities. He frequently thought, "I am a servant (bhritya) and serve the ship on wages. I get my food and clothing because of this ship, I should never be sluggish in my duties. I must serve the ship steadily." It seems that in the early centuries of the Christian era there were several categories of sailors and navigators. The āhara sailors navigated the ship to the shore; a common sailor was known as nāvika and that one plying a boat was called kaivartta. The helmsman was known as karnadhāra. \*\*

As we have noted above in the shipping of the Red Sea and the Persian Gulf, the same conditions prevailed as formerly. Āryasūra in the Suppāraka Jātaka<sup>68</sup> of the Jātakamālā has given a vivid version of the old Supāraka Jātaka (J. 463). In the new version, the pilot is named Supāraga i.e. one who was able to pilot the ship safely. This Supāraga was well versed in nautical science (niryāmaka-sātra). Āryasūra has conjectured that the Sopara port was named after him. The sea traders flattered him for conducting safe voyage. Once the merchants of Suvarņadvīpa requested him to captain their ship (vāhanārohanārtha) but he declined because of his old age and bad eye-sight. But the merchants persisted and Supāraga because of his good nature, though suffering from old age infirmities, agreed to their proposal.

After sailing for some days the ship reached the sea full of fishes. The

variegated lines appeared on the agitated and frothy sea and in the bright sunshine the blue sea seemed to touch the sky. There was no trace of the coast-line. After the sun-set the nature assumed more glaring form. The water became foamy, the wind started roaring, and the high waves rendered the sea more terrible. Agitated by the wind, eddies and whirlpools began appearing and it seemed that the day of dissolution had dawned. Slowly the sun disappeared behind the screen of clouds and darkness enveloped the scene. Tossed by the sea, the ship was shaking as if out of fear. At such a moment the travellers losing their balance of mind began praying their gods for succour.

In this way the ship tossed about for several days in the sea, but the travellers could not see the coast nor the signs by which they could identify the sea. They were very much perturbed by the appearance of new signs. To console them Suparaga informed them that those were the signs of an impending cyclone. To save themselves they had to shake off their cowardliness. Men steadfast in their duties laughed off their troubles. Encouraged by Suparaga's words the merchants forgot their troubles and began watching the sea. Some saw mermaids, but they could not decide whether they were fishes or women. Suparaga in order to remove their suspense told them that they were the fishes of the Khuramāli sea. The merchants wanted to change the course of the ship, but dashed by the high waves the ship reached a fuming sea which was identified as Dadhimala by Suparaga. After that it reached Agnimala whose water was red as hot ember. There as well the ship could not be stopped and floating along it reached Kushamala followed by Nalamala. When Suparaga explained to the merchants that they had reached the end of the earth, they were frightened. The great noise in the sea was due to the volcanoes. Taking it for granted that their end had come, some merchants began weeping, some began offering prayers to Indra, Aditya, Rudra, Marut, Vasu, Samudra, etc. and some began remembering their folk gods and goddesses. But Suparaga maintaining the composure of mind consoled them and as if by the force of his prayer the ship after reaching the mouth of volcanoes managed to turn. The pilot asked the merchants to load the ship with the stones available to that place. After some time they found that the stones contained silver, gold and precious stones. In spite of the exaggeration of the story there is hardly any doubt that it is based on the accounts of travellers proceeding to the Persian Gulf, the Red Sea and the Mediterranean.

The Divyāvadāna gives several stories of sea voyages which inform us that people not only travelled for profit but also as a form of amusement.

It is related in the sea voyage of Kotikarna 60 that once he sought permission of his father to undertake a sea voyage with merchandise. His father got it announced by the beat of drum that the merchants accompanying his son would not have to pay any taxes. Kotikarna selected sturdy donkeys to carry his goods to the port. At the time of departure his father advised him that he should never proceed before the caravan, because if he did so he was prone to miss his way. Therefore, it was advisable to travel in the centre of the caravan. He further ordered his two

slaves Dasaka and Palaka to be always with Kotikarna. After performing religious ceremonies he approached his mother to take her leave. She gave her permission unwillingly. After that Kotikarna loaded the packets of goods carried by bullockcarts, load carriers, oxen and donkeys and reached the port of embarcation. From there taking a short trip he reached Ratnadvipa (Sri Lanka). There after testing precious stones very carefully he purchased and brought them to the ship. After his business was over, taking advantage of the favourable wind his ship returned to India. The caravan began resting on the sea-coast and Kotikarna leaving it began preparing the accounts of his transactions. After some time he despatched Dasaka to make inquiries about the caravan. Dasaka saw everybody sleeping and he himself joined them. When he did not return, Kotikarna sent Palaka to make further inquiries. Palaka saw the caravan being loaded and taking it for granted that Dasaka must have returned, he engaged himself in the business of loading. After it was over the caravan started moving. In the morning it was found out that Kotikarna had disappeared but by that time the caravan had proceeded so far that it was not possible for it to retrace its steps.//

In the morning when Kotikarna got up he found that the caravan had already left. Mounting a donkey chariot he tried to follow it, but unfortunately its tracks were covered with sand, but the donkeys proceeded forward instinctively on the right track. Angered at their slow speed, he whipped them which made them take another track. Later on Kotikarna had to abandon the chariot for the lack of water. After this comes the miraculous part of the story which tells us how Kotikarna managed to reach his home.

We have pointed above about the sea voyage of Purna's elder brother. His ship sailing in favourable wind reached the sandalwood forest and there the merchants cut down the best sandalwood trees. Seeing the condition of the forest Mahesvara Yaksha became angry and he caused the Mahakalika vata or a cyclone to blow, and the merchants for fear of their life began praying Siva, Varuna, Kubera, Indra, Brahma, Uraga, Mahoraga, Yaksha and Danavendra. At that very time Purna by his miraculous power saved them.\*\*

In the sea there was always the fear of whales. It is related that once five hundred merchants taking a ship started on a sea voyage. Seeing the sea they were greatly frightened and asked the pilot the reason for the blackness of the sea. The pilot replied, "Oh the inhabitants of India, the sea is the home of pearls, beryl, chankshells, coral, silver, gold, agate, amethyst, carnelian and dakshināvarta conchshells. But only those are authorised to get them who have behaved well towards their parents, sons and daughters, slaves and labourers working in mines and offered alms to the Brahmans and Buddhist monks." Those who were on the ship wanted to earn profits, but they were not prepared to face any danger. The pilot complained about the overcrowding on the ship, but the merchants did not know how to conduct themselves. After a long deliberation they requested the pilot to address the crowd about the dangers of the sea. He addressed them thus, "Oh the inhabitants of India, there are many unknown dangers in the sea. It is the home

of gigantic whales and sharks and very often huge turtles make their appearance. The waves often rise very high and at times the banks are prone to erosion (sthaloutsīdana). Frequently ships go off their course and at times coming in contact with submarine rocks, they break into pieces. There is always the danger of cyclone (Kalikāvāta). The sea pirates dressed in blue loot the ships. Therefore, those of you who are ready to give up their lives and those who have entrusted their property to their sons should alone take this voyage. The number of brave is limited in this world while the cowards abound." Hearing the heart-breaking address of the pilot, the crowd melted. The sailors weighed the anchor and raised up the sails. Piloted by the chief helmsman (nāyakarnadhāra-sampreritam) the ship in favourable wind gathered speed and gradually it reached Ratnadvīpa.<sup>71</sup>

When the ship had reached Sri Lanka, the captain addressed the merchants thus, "In this island such artificial gems are available which appear to be absolutely genuine. Therefore, before purchasing precious stones you should thoroughly test them. If you do not act as I say then after returning to your home you will have no alternative but to curse your misfortune. This island is also inhabited by Krauncha girls who after capturing men give them a very sound beating. It also produces such intoxicating fruits that if one eats them he is bound to sleep for seven days. The wind blowing against the ship also takes it from its regular course." After receiving the warning the merchants purchased genuine gems after testing them thoroughly, and after some days the ship weighed anchor in favourable wind and sailed back to India. In the sea gigantic aquatic animals were encountered and big fishes were seen swallowing small ones. The merchants also saw a whale (timingala) swimming. One-third of its body was raised above the water. As soon as it opened its jaws the sea water began gushing forth from it. Due to the force of the water turtles, sea-horses, dolphins and many other kinds of fishes began entering its cavernous mouth. Seeing it the merchants thought that the day of dissolution had come. Finding them in such disturbed state of mind the pilot addressed them, "You have heard about the danger of the whale previously; now that danger is at hand. The rock protruding from the sea is no ordinary rock, but the head of the whale and that which appears like a line of pubies is in reality its lips. Inside the jaws the white lines are its teeth and the fiery balls represent its eyes. Now nothing can save us from the impending death. Now you people should offer prayers to your gods." The merchants did as they were told but without any effect. But as soon as they remembered the Buddha the whale closed its jaws and thus the merchants escaped death.72

In the above stories we see a curious admixture of the miraculous and realistic elements though certain parts of the stories are based on actual observations. Such stories were written to edify the religious spirit of the Buddhists. In those ancient days there did not exist any scientific viewpoint to explain the behaviour of nature. Therefore, whenever a man had to face natural calamities, then without inquiring about their cause they were attributed to the displeasure of the gods and the devils. But in spite of all this the sea stories of the Sanskrit Buddhist literature are based on actual experiences. We are well aware that in spite of all difficulties including ship-

wrecks, the sea merchants never stopped their voyages. Their small ships were often wrecked, most of the passengers lost their lives and those who survived, reached some deserted islands where they waited for the arrival of other ships for their rescue. They had also to face the dangers of submarine rocks and sea pirates. The success of such voyages depended on the accomplishment of the pilots and helmsmen. These pilots were experienced navigators and they were well acquainted with the nature of different fishes and they also gave proper advice to merchants from time to time.

From the Sanskrit Buddhist literature we also get some information about the guilds of that period. In this period they had become more developed and had an important place in the economic life of the people. These guilds could frame their own rules and regulations, but for their universal acceptance it was necessary that they should be passed unanimously.

Sometimes there were litigations about the guild regulations.73 We have referred to the story of Pürna of Sopara above. Once he received information about the arrival of five hundred merchants. Purna approaching them asked information about their goods (dravya) and they gave him information about very inflated prices of their goods. The goods were priced for eight lakh gold coins and Purna advanced them (avadranga) three lakhs on the condition that he could pay the rest of the amount on the day of the delivery. After the transaction was over Purna sealed the goods (samudrālakshitam) and departed. Other merchants also heard about the arrival of the goods and they sent their brokers (avachārakāh purushāh) to inquire about the kinds and prices of the goods. The brokers learning of the inflated prices of the goods and in order to bargain told the merchants that their store-houses (koshtha-koshthagarani) were filled to the brim with the goods and hence they did not require them, but they were greatly surprised to hear that the sellers did not care whether their store-houses were full or not as Purna had already bought their goods. After exchange of hot words the sellers informed the intended buyers how much money Pūrņa had given them in advance and that they were not in a position even to pay the advanced money for the entire goods. The brokers approached Purna and calling him a robber informed him that the guild had framed certain rules (kriyakārāh kritāh), according to which no individual member of the guild could purchase the entire goods, but only the guild was authorised to purchase the goods in bulk. Purna raised an objection to the particular rule because when the rule was passed, Pūrna or his brother was not present. For not accepting this rule the guild fined him sixty kārshāpaņas. Pūrņa, however, appealed to the king and won his case.

After some time the king required the goods which Purna had purchased. The king asked the guild to send Purna to him to see his goods, but it was unable to do so because the goods were in possession of their opponent Purna. They prayed the king to take forcible possession of the goods from him, but the king refused to do so. Forced by the circumstances the members of the guild sent their man to Purna but he refused to sell the goods. In order to extricate themselves from com-

plications, the representatives of the guild met him. They offered to purchase the goods at the price paid by Pūrṇa, but the clever Pūrṇa realised double the amount from them. It is evident from above story that guilds had become developed institutions in that period. It seems that the merchant guilds purchased the goods in bulk. They could frame their own rules and regulations, but for doing so unanimous voting was necessary.

Some curious cases also appeared in the sea-trade. It is related in the Brihad Katha Śloka Samgraha<sup>74</sup> that once when Udayana came to his court two merchants related their story to him. The father and elder brother of the merchants had lost their life at the sea. After that the wife of the elder brother took possession of all the property and, therefore, the merchants requested the king to effect their partition. The king summoned their sister-in-law but she said, "Although the ship of my husband was lost it has yet not been finally established that he is dead; there is every possibility that like some other ship-wrecked persons he may return. Moreover, I am pregnant and I may get a son, therefore, I have not returned the property to my brother-in-law." The king accepted her plea.

We also know from the contemporary literature that the guilds exercised great influence on the king. Nagaraŝresthi was the chief banker of the king. He was counted as an adviser of the king who helped him financially at the time of need.

Now the natural question arises how many kinds of guilds existed in that period. The information is very limited but the Mahavastuts gives us some relevant information. It seems that clever artisans had special place in the economic life of the city. The best artisans were known as mahattara (masters). The master florist made garlands, perfumed chaplets (gandhamukuta) and many other kinds of wreaths. The master potter (kumbhakaramahattara) made various kinds of ceramic ware. The master washerman had no equal in his profession. The master dyer dyed his cloths with great care. The master brazier could also make utensils of gold and silver and inlay them with precious stones. The master goldsmith fashioned most delicate ornaments and was expert in chiselling and polishing them. The master jeweller had expert knowledge of pearls, beryl, chankshell, coral, crystal, carnelian, jade etc. The master chank-cutter (sankha-valayakara-mahattara) could work in chankshell and ivory in a very expert way. He made from these materials, pegs, collyrium sticks, caskets, ewers, bracelets, bangles and other ornaments. The master turner could turn on the lathe toys, fans, images, etc. He could also copy realistically many kinds of flowers, fruits, and birds. The master cane weaver could weave fans, umbrellas, baskets, stools, boxes, etc.

The Mahāvastu<sup>78</sup> mentions the guilds of Kapilavastu. In the ordinary guilds are mentioned the workers in wrought and unwrought gold, sellers of wrappers (prāvārika), the workers in chankshell (śāńkhika), ivory carvers (dantakāra), lapidaries (manikāra), stone carvers (prāstarika), perfumers, weavers of silk and woollen clothes (koshāvika), oil pressers, sellers of dahi (dādhyka), cake sellers

(pūpika), makers of sugar (khaṇḍakāraka), makers of laḍḍus (modakāraka), sweet-meat sellers (kandāvika), makers of flour (samitakāraka), makers of sattu (sattukāraka), fruit sellers (phalavaṇija), sellers of roots and herbs (mūlavaṇija), sellers of perfumed powders and oils (chūrṇa-kuṭṭa-gandha-tailika), makers of molasses (guḍapāchaka), makers of crude sugar (khaṇḍapāchaka), sellers of dried ginger, wine makers (sīdhukāraka) and sellers of sugar (sārkarāvaṇija).

Besides the guilds mentioned above there were other guilds which are called silpāyatanas in the Mahāvastu. There is little doubt that these silpāyatanas played an important part in the development of trade and commerce in this country. The goods manufactured by them were not only sold in this country, but must have been exported as well and thus they were helpful in strengthening the foreign relations of India. In these workshops ironsmiths, copper plate makers, bronze casters, braziers, tin-makers, glass-makers and lathe workers were important. Garland-makers, fillers of the cushion with cotton (purimakāra), potters, weavers of wool, cane-workers, weavers on jacquards (devatātantra), washermen, dyers, needle-workers, cotton weavers, painters, makers of gold and silver ornaments, farriers, washers, barbers, borers, stucco-makers, chariot-makers, architects (sūtradhāra), well diggers, dealers in woods and bamboos, sailors and gold washers were important.

We have tried to give a picture of contemporary professions and the guilds connected with them. In the early centuries of the Christian era as the trade developed, then for its proper regulation laws had to be enacted. On this account the law of partnership, the law to regulate business transactions including the non-delivery of goods and the laws relating to guilds were enacted. As Kautilya in the Arthaiastra has defined the laws pertaining to the contemporary trade in the Maurya period in the same way the Nāradasmṛiti compiled in the Gupta period, gives the rules and regulations concerning trade practices. Though the Nāradasmṛiti was compiled in the Gupta period, but there is every possibility that those rules and regulations were also current in the early centuries of the Christian era.

According to the Naradasmṛiti<sup>77</sup> partners in a business invested the equal amount of capital. The profit, the loss and the expenses were divided in proportion to the capital invested by the partners. The expenses in connection with store-keeping, food, transport and storage of precious goods were in accordance with an agreement. Each partner, who incurred loss on account of his carelessness or without consent of his partners, had to make good the loss himself. One who saved the goods from the inclemency of weather, displeasure of the king and from robbers was entitled to receive one-tenth of the amount involved. If any partner died, then his successor automatically became a partner of the concern. But if there was no successor, then the surviving partners became his successors.

The merchants after their arrival at the customs house settled the customs dues. Being a state concern customs duties had to be paid in any case. The merchant after reaching the customs house sold his goods, after the appointed

time if he did not declare the true prices of his goods, then he was fined eighteen times the price of the goods. No pandit or Brahman had to pay any dues on his household effects. In the same way a Brahman who received the goods as alms was duty free. The personal effects of the acrobats and the goods carried on one's back were not dutiable.78

If a travelling merchant died, then his goods were detained for ten years for his successors. Perhaps after this period if the goods remained unclaimed, then it was passed over to the state.

Those who refused to carry the goods to a predetermined place, were fined one-sixth of their wages. If any merchant refused to supply animals or vehicles for loading, after settling his affairs, he had to pay a fine amounting to one-fourth of the settled rates. But if the party released the vehicles half way even then it had to pay the full settled rates. If a load carrier refused to carry the goods, then he was not entitled to any wage. If at the time of start he showed his unwillingness, then the carrier was fined three times the amount of his wages. If on account of his carelessness a porter damaged the goods, then he had to pay damage, but if the damage took place on account of natural causes or king's displeasure, then he had not to pay any damage.

A man who did not deliver the goods was punished. If the price of the purchased goods fell in the market, then the purchaser had to pay the actual price on the loss incurred by the fall in market rates. This law was only for the natives, but the foreign merchants had also to recompense the purchaser on the profits gained on their goods. At the non-delivery of the purchased goods or if the goods were damaged by fire or stolen, then the loss had to be paid by the seller. After showing quality of goods and then delivering inferior goods, the seller was punished for cheating and from him was realised a compensation amounting to two times the price of the goods and the same amount of fine. The same punishment was meted out to the man who delivered the purchased goods to somebody else. But if a purchaser did not take delivery of the goods, the seller was entitled to sell it without incurring any punishment. But this rule was only valid when the seller had fully paid the price. If the price was not paid, then the purchaser was in no way held responsible. Merchants purchased and sold goods for the sake of profit, but their profit was determined according to the prices of different kinds of goods. It was, therefore, necessary for merchants that they should determine the prices in accordance with the place and time. 81

According to the Nāradasmṛiti the king accepted the validity of the guilds and the pūgas of the city and districts. He recognized their rules and regulations concerning the livelihood. \*\*a\*. In the Hindu states the Brahmans had certain privileges. They could use the ferry boats without paying any charge. They were also not expected to pay any charge for ferrying their goods across the river. \*\*a\*

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### CHAPTER VIII

## TRADERS OF SOUTH INDIA

In the trade routes and travellers of south India from indigenous sources. It is, however, certain that the travellers of Tamil Nad had intimate trade relations with foreign countries specially with Babylonia. However, the darkness of south Indian history is somewhat lifted in the early centuries of the Christian era. There is no unanimity of opinion about the date of the early Tamil literature, which is the only source of information about the social and political history of the south. Some scholars date it to the early centuries of the Christian era, while others bring it down to the 5th century A.D.

The picture of south Indian cultures is available from the Silappadikāram, Manimekhalai and miscellaneous poems of the Sangam age. The volume of this literature proves that the culture of south India was as much developed as that of north India. As foreign trade brought enough gold in south India, the luxurious life of the people increased considerably. The sea trade was at its zenith and shipping on the eastern coast ranged from Tamralipti on the Bay of Bengal upto the mouth of the Indus of the western coast. The sea merchants of the south India carried their goods to Sri Lanka, Suvarnadvipa and East Africa. The Roman traders were also constantly visiting south Indian ports and exported from there black pepper and spices, valuable muslin and precious stones and pearls to Rome. There is hardly any doubt that the Roman merchants had intimate knowledge of the sea coast of south India and the contemporary Roman geographers made good use of the knowledge.

The literature of the Sangam age informs us that in the big cities of south India lived great caravan traders who constantly travelled by road and sea routes. According to the Śilappadikāram¹ in Puhār or Kāverīpaṭṭīnam, there lived a sea caravan leader (mānāikan) and another master of caravan on the land route (māšāttuvan). The Tamil literature does not give enough information about the searoute, but there is no doubt that the south had trade relations with Ujjain through Paithan. South Indian merchants and pilgrims reached Varanasi via Ujjain. The Manimekhalai mentions that a Brahman pilgrim from Varanasi along with his wife paid visit to the Cape Comorin.² The Śilappadikāram³ mentions the sealed goods from north India reached the south, and merchants had to pay customs duties and other taxes on the loads.⁴

The Tamil literature does not mention the names of the ports from where ships sailed to foreign countries. At one place it has been noted that the ships sailing from the sea coast of Madurai stopped at Manipallavam whose capital was Nagapura. The coast of Muchiri was situated near the Periyar river and as pointed elsewhere it has been mentioned in the Mahabhārata and the Periplus. One Tamil poet describes the port of Muchiri where the large and beautiful ships of the Yavanas sailing in the foamy river Periyar brought gold and loaded their ships with the black pepper. Another poet observes that at Muchiri paddy was exchanged for fishes and bags of black pepper were brought from houses to markets. In exchange for the goods, gold was brought from the ships in small boats to the port. The music of the waves of Muchiri never stopped there. The Chera king presented the sea and mountain goods to his guests.

On the eastern sea coast of India the port of Thondi was situated on the Makkali river; the town has been identified with Pallikar village five miles north of Kilnidi town. Perhaps the name of the Tondi-chera variety of cloth in the Divyāvadāna could have been derived from this port.

The Kaveri river was so deep that big ships could sail in it and on its northern bank was situated the port of Kaveripattinam. Pattinapakkam was situated in the west of the city. In the open space between these two points a market was held. The chief roads in the city were named as rājamārga (king's highway), rathamārga (chariot road), āpaņamārga (the market road) etc. The king's palace was surrounded by the residences of the charioteers, horsemen and the king's bodyguard. In Pattinapākkam lived bards, acrobats, musicians, clowns, chank-cutters, gardeners, pearl-stringers, those who announced the time every hour, and other officers of the court. On the sea shore of Maruvūrpākkam were raised high platforms and store-houses for storing the goods. After settling the customs duties the articles were sealed with the tiger claw symbol of the Cholas. After that the goods were stored in the godowns. Here all kinds of goods were sold; in this quarter the merchants lived well.

The Silappadikāram gives a very realistic description of Puhār or Kāveripaṭtīnam. The king was so rich that other kings were envious of his fortune. The caravans brought from land and sea routes such variety of goods that it seemed that all the produce of the world had collected there. In the port and outside one could see goods heaped everywhere. At many places one could see the residences of the very prosperous Yavanas. In the port one could see sailors from all countries who were friendly to one another. In the streets of the city shopkeepers sold ointments, bath-powders, flowers, incense sticks and perfumes. At some places were sold silk cloths, coral, sandalwood, myrrh, ornaments of all kinds, faultless pearls and gold. In the open space in the centre of the city were seen loads of goods bearing the mark of their weights, their numbers and the names of their owners.

At another place as well a very realistic picture of the sea-shore of Kavertpattinam has been drawn.<sup>13</sup> Madavi and Kovalan passing through the king's highway reached the Cheramarga on the sea-shore where goods from Kerala were unloaded. Here the waving flags announced as it were, "We are the witnesses to the goods of the foreign merchants lying on the stretch of white sands." Here the shops selling colours, sandalwood, perfumes and sweet-meats were lighted with lamps. The shops of clever goldsmiths, and the shops of the girls selling pitu and idlis in a line were also lighted. The lamps of fishermen were flickering at places. There were also light-houses on the shore to guide the ships during the night. The big fishing boats carrying nets had also dim lamps. In the lights of these lamps the port glimmered. Inside the port the ships loaded with the goods of the sea and mountains anchored.

One part of the sea-shore was reserved for picnic-makers. Here princes with their companions and affluent merchants took their rest. Accomplished singing and dancing girls could be seen within the camps. The crowds dressed in various costumes and speaking different languages mixing with the crowds of the mouth of the Kaveri gave it a very colourful appearance.<sup>14</sup>

The Pattinappālli<sup>15</sup> throws some additional light on the life of Kaverīpattīnam. It informs us that in its hospices free food was distributed. The Buddhist and Jain temples were situated at one place outside the city. In another part of the city the Brahmanas performed Yajāas.

Among the inhabitants of Kaveripattinam fishermen occupied a prominent place. They lived on the sea-shore and their chief food was fish and boiled turtle meat. They were very fond of decorating themselves with flowers and their chief form of amusement was the ram-fight. On closed days they stopped their work and spread their nets before their houses for drying. At first they took their bath in the sea and then in fresh water and after that they with their women-folk, danced around a pole. They also diverted themselves by engaging themselves in sport and other pastimes. On those days they did not drink but remained in their houses amusing themselves with music, dancing, and dramatic shows. After spending some time with their women-folk in the moonlight, they retired with them to their houses.

The women-folk of Puhār assembling on the buildings of several storeys witnessed the festival of Muruga staged on the roads. On those days the buildings were beflagged. The Pandits as well raised their standards challenging others to engage them in shāstric discussions.

As we have seen above for the safety of the ships, provision was made for light-houses which were built strongly. During the night they provided strong lights in order to make the entrance of the ship within the port safe.<sup>16</sup>

In the story of Saduvana in the Manimekhalai, the difficulties of the sea merchants in south India are pointed out.<sup>17</sup> It is related that after Saduvana had become poor his wife began to scold him. Troubled by his poverty he decided to sail to foreign countries. Unfortunately, there was a ship-wreck. Floating with the mast Saduvana reached Nagadvipa. In the meanwhile some of his companions managed to reach Kaveripattinam and announced there the death of Saduvana. Hearing this, his wife decided to commit sati, but a miraculous power stepped her from doing so and it informed her that her husband was alive and would return soon on the ship of the merchant Chandradatta. Hearing this good news Saduvana's wife decided to wait for him.

In the meanwhile in Nagadvipa, Saduvana getting out of the sea began resting under a tree and slept there. Seeing him, the naked aborigines reached him and awakened him with a view to eat him. But Saduvana knew their language and began conversing with them. They were greatly surprised and took him to their chief. He saw him living like a bear with his wife in a cave. Near him was a pot for making wine and fowl smelling dry bones. He was very much impressed by Saduvana's talk and ordered that meat, wine and women should be provided to him, but when Saduvana refused to accept the proffered hospitality he was very much surprised. During the course of their conversation Saduvana extolled the doctrine of Ahimsā and drew a promise from the chief that in future he would provide shelter to ship-wrecked people. He in his turn gave to Saduvana the gift of sandalwood, agallochum, cloths etc. which he had looted from the ship-wrecked passengers. After that Saduvana returned to Kaveripattinam and began passing his time happily with his wife.

In the early centuries of the Christian era the markets of Madurai were very famous. 18 It is said that Kovalan reaching the jewellery market of Madurai saw jewellers selling faultless diamonds, lustrous emeralds, varieties of rubies, sapphire, bindu, crystal, topaz studded in gold, gomeda, cat's eye, beryl, firestone, best kinds of pearls and coral.

In the cloth market he saw bundles of finest textiles. The shops had cotton, silk and woollen cloths amounting to hundred rolls each. In the grain and spice markets merchants moved here and there with weighing scales and measures (umbanam) for measuring grain. In the grain market one could see heaps of grain bags and also thousands of bags of black pepper in all seasons.

According to the Pattupāţţu the roads and buildings of Madurai were very beautiful.<sup>19</sup> For the defence of the city there was a forest all around, deep ditches, high toraņa gates and ramparts. The houses were beflagged. Its markets were crowded with sellers and buyers, drummers announcing the festival days, elephants, bullock-carts, women carrying flowers and garlands and pan leaves, vendors selling articles of food and horsemen wearing long, patterned clothes and ornaments. Women of high families ornamenting themselves peeped in the streets from the windows at the time of festivals or shows. The Buddhists along with their wives and children were seen carrying flowers and incense to Buddhist temples. The Brahmanas engaged themselves in Yajñas and balikarmas and the Jains were also seen carrying flowers to their temples.

The merchants of Madurai did good business in gold, precious stones, pearls and foreign goods. The chank-cutters made bangles, the lapidaries drilled holes in precious stones and goldsmiths made beautiful ornaments and tested gold on touchstones. Other merchants sold textiles, flowers and perfumes. Painters were engaged in their profession and the city was crowded with weavers of all kinds. The poet compares their noise and tumult with the noise made by the labourers who loaded and unloaded the foreign ships in the midnight,

It is evident from the accounts of Puhar and Madurai that in the early centuries of the Christian era there was a very prosperous business of precious stones, textiles, spices and aromatic goods in south India. But the Pattinappalai20 also tells us that the famous cities of south India imported horses by the sea. The black pepper came from Muchiri by ships, pearls from the south sea and coral from eastern sea. The Silappadikāram21 informs us that from Korkai came the finest pearls. Its place in the medieval times was taken up by the port of Kayal, five miles inside. The goods produced in the valleys of the Ganga and Kaveri, Sri Lanka and Burma (Kalakam) came to Kaveripattinam in huge quantities.

It seems that south India also imported some foreign wine. The poet Nakkiyar addressing the Pandyan king Nanmaran says, "Ever victorious Mar, pass your days by drinking perfumed and cold wine brought by the Yavanas and poured in golden cups by beautiful cup-bearers.22

It is also evident from the literature of the Sangam age that the Yavanas brought to south India some ceramic ware and lamps. According to Kanakasabhai these lamps were decorated with the figures of the geese or they were fashioned liked Dipalakshmis. 23

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#### CHAPTER IX

# TRAVELLER AND CARAVAN TRADER IN JAIN LITERATURE (FIRST CENTURY TO SIXTH CENTURY A.D.)

THE JAIN canonical literature including the Angas, Upangas, Gathas, Churnis and their commentaries is full of interesting material, but unfortunately, it has not been studied very much. The chief reason for this is the non-availability of Jain texts and the difficulty of the language which makes the interpretations difficult. Except for some Jain works, most of the Jain literature has been published for the edification of the Jain devotees. Very little care has been taken in editing them and they are full of misprints and wrong texts. They have neither introduction nor indices. They also lack linguistic notes which makes it difficult to understand the correct import of the texts. To trace any cultural reference in Jain literature it is necessary to go through all of it. But if one is brave enough to wade through its mass, then it becomes evident that without the study of Jain literature the cultural history of India remains incomplete, because the Jain literature throws light on certain aspects of Indian culture which have not been mentioned either in Pali or Sanskrit literature and even if they are referred to, the references are very sketchy. For example, let us take the topic of Sarthavaha.1 Brahamanic Sanskrit literature, because of difference in point of view throws very limited light on the problem. As against this the Buddhist literature deals with the subject at some length though the story-telling element has an upper hand in such descriptions. Therefore it is difficult to find out from the Buddhist literature in what kinds of goods the merchants traded and what was their organisation. But the Jain literature believes in giving even the minutest details. It has nothing to do with poetic prose. Whatever subject it touches it describes in detail, unmindful whether such descriptions go well with the framework of story. The Jain monks were wanderers by nature and while travelling from place to place they did not fail to observe the life of the people. Jainism was also chiefly the religion of merchants and, therefore, the Jain literature has not failed to describe the various aspects of the life of their followers. The Jain monks wherever they went studied its geographical and social conditions and also the local language in order to preach to the people at large. We shall try to describe the light the Jain literature throws on the organisation of the merchant community, the caravan on the march etc. It is difficult to be certain about the date of the Jain angas and upangas. But most of the Jain canonical literature could be dated to the early centuries of the Christian era. The Bhāshyas and Chūrnis may be dated to the Gupta period or a little later. Whatever may be their date, there is hardly any doubt that the material preserved in them is fairly ancient.

The Jain literature gives certain definitions about trade. It is necessary to study them as such definitions are not given in other literature. These definitions or stock descriptions inform us about the places where the goods were sold and that in ancient India for the sale and purchase of the goods and for their transport there were many markets and the differences in the nature of such markets have been emphasized.

Jalapattana was a sea port where foreign cargoes were unloaded and indigenous goods exported. As against this Sthalapattana were those markets to which goods were transported by bullock-carts. Dronamukha were the market towns where the goods came both from the sea and land routes, as examples, Tämralipti and Bharukachchha are cited. Nigama was the city of bankers. Nigama is divided into two categories, namely samgrahika and asamgrahika. According to the commentary the samgrahika nigama did the business of pledging the goods and deposits and asamgrahika nigama besides doing banking business could also do other business as well. It is evident from these references that nigama was that town or city which did mostly banking business. Niveša was the town of caravans. The assembly of the camps of caravans was also known as niveša. Putabhedana was that market where the bales of the goods coming from all over the country had their seals broken. As an example is mentioned Sākala (modern Sialkot).

As we have noted above, it was incumbent upon Jain monks travelling to visit the places of pilgrimage or to preach their religion, but the method of their travel in the beginning was different from ordinary travellers. They could stay only in a religious building, a hospice or in the workshops of a potter and ironsmith where they could sleep on the bed of straws. If they were unable to get place in those places, they were allowed to stay in a vacant house, in a cemetery or under a tree.7 During the rains the Jain monks were forbidden to travel. In the four months of the rain they stayed at such places where lawful food was available and where there was no fear of the intrusion of the Buddhist monks, Brahmans, guests and beggars.8 It was also incumbent upon the Jain monks and nuns that they should follow such a route which was devoid of the danger of robbers and the Mlecchhas and which did not pass through the land inhabited by the aborigines. The monks were not allowed also to travel through the anarchical states, small republics, country orunder without a prince (dvirajya and virajya). They also avoided forests. However, they were allowed to cross the rivers by boats. These boats were taken out of the water for repairs. In the Jain literature the bow (purao), stern (maggao) and centre are mentioned. An example of the language of boatmen is also cited. "Draw the boat onward (sancharaesi), draw back (ukkasittaeya), push (atasilteya), draw the rope (āhara), use the oars (alittena) and the helm (pidhayena); bamboos and other implements in the use of the boats are mentioned. When the necessity arose, a hole in the boat was plugged with a bowl, cloth, earth, kusha grass or lotus leaves.9

On the routes people asked the monks many meaningful or useless questions like, "From where have you come?" "What is your name?" "Have you seen

somebody on your way?" (as some man, cow, buffalo, any quadruped, bird, serpent or aquatic animals). "Tell me, show us." They also questioned about flowers, fruits and trees. The usual question was how big a particular village or town was or what was its distance. On their way the monks often met robbers and oppressed by them, they had to inform the state guards.<sup>10</sup>

The Jain literature informs us that there was great peril of robbers on highways. The Vipākasūtra<sup>11</sup> gives the story of an adventurous robber named Vijaya. The habitations of robbers were located in forests, in ditches, bamboo groves and the mountain valleys where water was available. The robbers were fearless. Under the command of robber leaders, all kinds of thieves and pickpockets ordered by him robbed, killed or forcibly took men to their chief. Vijaya had so much influence that often he realised revenue for the king. If caught, robbers were killed after inflicting great torture.

After taking long journeys, travellers were tired and in order to remove their fatigue their feet were washed and massaged thoroughly. After that oil, ghee or fat mixed with lodha powder was applied. They were again washed with hot or cold water. In the end they were anointed and treated with incense smoke. In the sixth century, however, the Jain monks undertook long journeys not only for preaching their religion but also for other purposes. Wherever they went, they thoroughly examined the people of the locality. This was known as Janapadaparīkshā. The monks treated it as an act of piety if they met the people in the districts. In such towns they learnt many languages and dialects. They got the opportunity to examine the rural areas at their leisure. Their disciples also gained experience from such tours. In these tours Jain monks also visited the birth places of the Jain Tirthankaras, then leaving the family life and the places where they attained Kevalihood. In

It was expected of the tour-minded Jain monks to learn many languages, <sup>18</sup>

After gaining the knowledge of unknown languages, they preached in them. <sup>16</sup>

During the course of their tours they met renowned Jain teachers and learnt from them the correct interpretation of Sūtras. <sup>17</sup> The teachers advised them that whatever they got as alms they should show them to the officers of the state so that they could not be suspected of stealing. <sup>18</sup>

As we have noted above the Jain monks in the course of their tours examined the janapadas thoroughly. They made enquiries about different kinds of grains which a district produced and the kind of irrigation required for that area. By these constant enquiries they came to know that in certain regions cultivation depended upon rains. In the commentary, Lata or Gujarat is mentioned. In certain regions as Sindh, irrigation was carried on by the rivers. In certain regions tanks were used for such purpose as in the Dravida country. At places wells were used for irrigating the fields as in Uttarapatha, and at places the floods served the purpose. Here it is mentioned that after the flood in the Banas grains were sown. At places the paddy was planted on boats at Kananadvipa. These

monks also examined in detail cities like Mathura where the means of livelihood was not farming but trade. They also visited such places where inhabitants lived either on meat, fruits or flowers. Whatever regions they visited they inquired about its extent, the local customs and manners. They came to know that it was customary in Sindh to eat meat. In Maharashtra people even dined with washermen and in Sindh with the wine dealers.<sup>19</sup>

According to the Āvaiyakachūrņi<sup>20</sup> the Jain monks were also adept in folklore, and they specially made enquiries about four subjects namely chhanda, vidhi, vikalpa and nepathya. Here chhanda means food, ornaments etc., vidhi means the local customs as in Lata, Golla (Godavari district) and Anga (Bhagalpur), people could marry maternal cousins, but this was totally prohibited in other parts of the country. Vikalpa was concerned with methods of farming, household affairs, management of temples etc., and nepathya dealt with the study of costumes.

In the period of anarchy the Jain monks and businessmen had to observe certain rules. The monks were allowed to go to the state where king was dead (vairajya), 21 but they could not go to the enemy state. The forest keepers (gaulmika) out of compassion allowed the Jain monks to proceed. The gaulmikas were divided into three categories, namely samyatabhadraka, grihibhadraka and samyatagrihibhadraka. Even if the first category released the monks, the second category caught them. Even if they managed to get rid of them, as soon as they entered the state, an officer asked them what track (utpatha) they had followed. If the monks were unable to answer the question properly they are arrested for not taking the straight route. If they averred that they had taken the straight route, even then they could put themselves and forest guards in trouble. These forest guards were appointed for protecting the travellers against robbers. The sthānapālaka (police inspector) did not allow anybody to proceed without a valid permission. It was for this reason that those taking circuitous routes were treated as criminals. At times police inspectors were asleep and there was nobody else to act for them. If at such time the monks slipped away quietly even then if they were arrested they not only put themselves in trouble but the police inspector as well.22

The sārtha or caravan was divided into four categories namely, (1) bhandi sārtha—the caravan which carried goods only, (2) bahalikā which consisted of donkeys, oxen etc., (3) bhāravāha—in this the caravan members carried their own loads, (4) the audārika sārtha which composed entirely of labourers in search of their livelihood wandered from one place to another, (5) the kārpaţika sārtha which was mostly composed of monks and religious mendicants.<sup>23</sup>

The goods carried by a caravan were known as vidhāna. The goods were of four kinds namely, (1) ganima, which could be counted as myrobalan, arecanuts etc., (2) dharima, which could be weighed such as sugar, (3) meya, which could be measured by a measuring pot such as pali or setika as rice and ghee, and (4) parichchhedya which could be tested by eyes only as cloths, precious stones, pearls etc.<sup>24</sup>

The caravan had with it anurangā (a sort of a vehicle), litters (yāna), horses, buffaloes, elephants and oxen which could be used by the helpless, sick and wounded persons, old men and children as well as pedestrians. Some leaders of caravans realised fare for the use of such vehicles, but those who refused to allow children and old persons to use the vehicles, were considered to be very cruel and it was not advisable to travel under the leadership of such persons. 25 Such caravans which carried with them sweetmeats, wheat, sesamum, jaggery and ghee were considered praiseworthy because in the time of trouble as a flood the leader of the caravan was in a position to feed the entire caravan and also the mendicants accompanying it. 26

During the travel the leader of the caravan always took into consideration the comfort of the travellers and arranged the journey in such easy stages that the members of the caravan were not forced to travel more than necessary. During the journey the caravans suddenly faced unforeseen calamities as excessive downpour, flood, the stoppage of the passage by robbers and wild elephants, agitation in states and other calamities of such nature. At such time, if the caravan had with it the articles of food and drink then it could camp at one place till the peril was over. The caravans often transported precious goods which included saffron, agallochum, choya perfume, musk, cinnabar, chankshell and salt. It was not considered advisable for merchants and specially monks to travel with such caravans because there was always the danger of their being looted. In order to face the troubles on the road smaller caravans stopped at a place till they were able to join bigger caravans. At times two caravan leaders decided among themselves that if they had to pass a forest, a river or a fort then they would stay for the night and cross the river only in the morning.

The sārthavāha taking into consideration the comforts of travellers made such arrangements that they were not required to cover long distances in one day. Kshetratah parišuddha caravan covered only such a distance in a day which could be done with ease by old men and children. The caravan which started before the sunrise was known as kālatah parišuddha sārtha. The bhāvatah parišuddha provided food to monks of all religions without any differentiation. 30 A well organised caravan without leaving the main road proceeded onwards slowly. It stayed for midday food and after reaching the destination encamped there. 31 The caravan leader was ever ready to follow only that route which passed through villages and grazing grounds. He also tried to encamp at such places where monks could get alms with ease. 32

Those who travelled with caravan leaders were required to obey the orders of one or two of them. If either of the two leaders were not on good terms it was not advisable to travel with such a caravan. It was also incumbent on travellers to believe in good or bad omens in which the whole caravan believed. It was also required that the travellers should obey the orders of an officer appointed by the leader to lead the caravan.<sup>20</sup>

The Jain monks did not find themselves very happy while travelling with caravans. Very often when they proceeded to seek alms then the caravan proceeded on and then the monks had to wander hungry and thirsty. It is related that a group of such monks left behind by the caravan reached the camp where the carts carrying the goods for the king had encamped. There they got food and were informed about the road that they had to follow. But the monks had to encounter all these difficulties when the caravan did not provide them with food. The Āvašyakachūrņi³¹ describes that the leader of the caravan travelling between Kshitipratistha and Vasantapura, announced by the beat of drum that those who accompanied him would be provided with food, clothes and medicine without any charge, but such magnanimous caravan leaders must have been very limited in number. If an ordinary merchant or businessman carried out the principle of free distribution in practice then his bankruptcy was certain.

We have been informed innumerable times in the Jain literature that the Jain monks observed very strict rules in their food and drink. During the travel they were allowed jaggery, ghee, plantain, date, sugar and a sweetmeat made of jaggery. ghee, and rice powder. If the ghee was not available they were allowed to make use of oil as well. They partook the above articles of food because those articles satisfied their hunger in very little quantity and after partaking them they also did not feel thirsty. But such rich food was not available all the time and, therefore, they had to subsist also on parched grain, sweetmeats and rice powder as well, as On their journey the Jain monks made provision for their own medicine. They had medicine for cough, sas etc. and also ointment and bandages for wounds. 37 It was necessary for a caravan that its members, in order to save themselves from wild animals, should not go beyond the fencing put up by the leader of the caravan. If such fencing was not provided then the Jain monks were allowed to put thorny bushes around the camp as fencing. In order to ward off the wild animals fire was also lighted on the hills. Wherever there was fear of robbers, the members of the caravan boasted about their bravery in order that the robbers hearing about them should leave them alone. But when the robbers attacked, then members of the caravan scattered hither and thither to save their lives.38 Such a caravan which had children and old men with it, if it missed its way in the jungle then with the help of the monks and the sylvan gods, they managed to find their way out.30 If the caravan was scattered by the attack of wild animals and robbers and the Jain monks found themselves all alone then they had no other recourse left except to pray to the gods.40

The *Bṛihadkalpasūtrabhāshya* also gives a realistic description of the caravan of beggars. In case no food was available they had to subsist on roots, bulbs and fruits but these articles were prohibited to the Jain monks. If they did not eat these prohibited articles the other beggars threatened them. They brought a long rope and told them that they would hang them and then take their food with their mind at ease. It

The members of a caravan could stay wherever they liked but the Jain monks

had also to observe certain rules in this connection. Looking at the difficulties of the travel it was not easy to observe these rules. The Jain monks along with the caravan coming out of the forest at even-tide engaged themselves in the search of lawful residence and if they were unable to get such place they stayed in the workshops of potters.<sup>42</sup>

During the journey the Jain monks somehow or other made arrangements for themselves for stay but the Jain nuns had to face great difficulties. The Brihadkalpasūtra43 informs us in a Sūtra that the nuns were not allowed to camp in an uncurtained house, on a platform, under a tree, or in an open place. In a resthouse all classes of travellers could stay. Space was also available for the travellers to stay in village panchayat house (grāmasabhā), on a stepped well (prapā), and in temples.44 The poor nuns could not stay in such places because people laughed at them when they proceeded to the call of nature. 45 Very frequently dogs stealthily entered the rest-house and carried away the utensils. In the company of the householders the Jain nuns could not attain the composure of mind.46 In these rest-houses unchaste women and prostitutes along with their lovers and wicked characters found shelter. The royal and marriage processions passed by these shelters. Seeing them the nuns were reminded of their former days. In these resthouses they were not also allowed to converse with young persons for these people looked at them with aversion. At times their clothes were also stolen and also there was the danger of their moral being affected, surrounded by prostitutes and other bad characters.47 After searching for the lawful place thrice if it was not available then the Jain nuns were allowed to stay in a rest-house or in a fenced temple. But this was considered only lawful when they were in a position to protect themselves with a steadfast mind from the followers of other religions. Good neighbourhood48 was also considered necessary. If no place was available in a temple there they could also stay with the village chief.49

We have noted above how ordinary businessmen and Jain monks travelled and what difficulties they had to face and how the caravans were organised. The Jain literature, however, does not give much information about the routes. There was a route leading to Ahichhatra (Ramnagar, Bareilly) which indeates the northern route of Uttar Pradesh. On this route a merchant named Dharma carried on his business. It seems that there was a route between Ujjain and Pampā which passed through Vārāṇasī and Kauśāmbī. It is mentioned that a caravan leader was looted on this route. Mathurā was a great commercial centre and there was intimate trade relations with the city and Madurai in the South. Dūrpāraka as a commercial centre is also mentioned. By the land route, merchants visited Iran (Pārasa-dīva). The people had to face great danger in the desert travels. In order to guide the caravan in desert routes pegs were put all along the routes.

Owing to their orthodox way of life the sea-voyage was not allowed to Jain monks, but the Jain caravan leaders and merchants, like the Buddhist merchants, undertook sea-voyages. The Jain literature gives very realistic accounts of such voyages. The Avaiyakachūrņi informs us that there were regular sailings from

Madurai to Saurashtra. It is mentioned in a story that the ruler of Madurai, Pandusena, had two daughters, who while sailing to Saurashtra, met shipwreck in a storm and for their protection began offering prayers to Skanda and Rudra. We will see later on, that ships sailing from Champa to Gambhīra, which was probably the same as Tāmralipti, sailed to Suvarnadvīpa and from there to Kāliyadvīpa (probably Zanzibar). The successful termination of a sea voyage depended much on favourable wind. Filots were expected to have an expert knowledge of sea winds for successful navigation. The sea wind is divided into sixteen categories, namely:

- (1) Prachina vāta (easterly wind)
- (2) Udichina vata (northerly wind)
- (3) Dakshinātya vāta (southerly wind)
- (4) Uttarapaurastya (northerly wind moving against forward movement)
- (5) Sattvasuka (wind blowing in all directions)
- (6) Dakshina-pūrva-tungāra (a stormy wind roaring in south-eastward direction)
- (7) Apara-dakshina-bijapa (the wind blowing from south-west)
- (8) Apara-bijāpa (westerly wind)
- (9) Aparottara-garjabha (north-westerly storm)
- (10) Uttara sattvāsuka
- (11) Dakshina sattvāsuka
- (12) Pürvatungāra
- (13) Dakshina bijapa
- (14) Paschima bījāpa
- (15) Paschima garjabha
- (16) Uttarīya garjabha

In the categories of the sea winds described above sattvāsuka, tungāra, and bijāpa are nautical terms and it is difficult to describe them, but there is hardly any doubt that they are related to favourable and unfavourable sea-winds. This is supported further on. After describing the sixteen kinds of winds, the commentator observes that in the absence of cyclones in the sea and in the favourable garjabha wind, the ship which has no leaks, piloted by a clever pilot reaches the desired ports safely. The cyclone which is called kalikāvāta caused many shipwrecks.

Two stories in the Jāziā Dharma throw important light on shipping in ancient India. One story relates that the sea merchants of Champā (nāva vaṇiyaga) traded with foreign countries in the articles which would be counted, weighed, and measured. At Champā all the articles of trade were loaded on bullock carts. At the time of departure a dinner was thrown out to friends and relatives. The merchants after meeting them started to the port of Gambhīra. The articles were unloaded from the bullock-carts and loaded on the ship. They also took with them articles of food such as rice, flour, oil, ghee, troughs of sweet water, medicines and also food for sick persons. They also took bundles of hay, wood, cloths, grains, weapons and many kinds of precious goods. At the time of the departure of the ship friends and relatives of the merchants expressed their good wishes and hoped that they would

return safely after making considerable profit. The merchants worshipped the sea with flowers and perfumes and then they raised their standards (flags) on the masts (valaya-vāhāsu). Before the ship weighed anchor they obtained the permission of the king. In the tumultuous noise of the auspicious musical instruments, the merchants boarded the ship and the bards began singing and wishing their safe return. The helmsman, the oarsmen, and sailors (garbhijjakāḥ) loosened the riggings. Thus released, the sails gathered wind and cutting the water, the ship sailed on. After completing the voyage safely the ship again returned to the port and cast anchor there.<sup>58</sup>

In another story the perils which merchants had to face in their voyages are described. The hero of this story started his voyage from a city named Hatthisisa to the port. During his voyage, a cyclone started and the ship began shaking badly. The danger was so great that the pilot did not know what to do and in confusion almost forgot his knowledge of navigation and lost the right direction. In order to escape from this peril the pilot, the helmsman and the sailors, after taking bath, began offering prayers to Indra and Skanda. The gods fortunately heard their prayer and the pilot reached safely to Kaliyadvipa where his ship cast anchor. In this island the merchants found gold and silver mines, diamonds and other precious stones. They also saw there striped horses or zebras. The strong scent of the aromatics almost drowned their senses. The merchants loaded their ships with gold and precious stones and sailing with the southerly wind they returned to the port and then offered presents to its ruler Kanakaketu. When the king asked them what strange places they had seen during their voyage, they at once named Kaliyadvipa whereupon the king again sent back the merchants with his officers to bring back zebras from that place. The merchants ageed to this proposal and began loading the cargo in the ship. This cargo included many musical instruments including various types of vina, wooden toys, terracottas, pictures, stucco figures, garlands, stuffed and woven toys, cloths made of twisted yarn and many other beautiful articles. Besides these articles they took with them oil cans perfumed with many flowers, cardamom etc. Some merchants took with them all kinds of sugar and jaggery. Others took with them blankets, mallow cloth, round cushions etc. for sale in foreign countries. Some jewellers took with them precious stones for sale. The ship was also loaded with rice. After reaching Kāliyadvīpa, small boats (asthika) unloaded the cargo. They brought back with them some zebras. 50

It is difficult to identify correctly Kāliyadvīpa, but there is every possibility that Zanzibar is meant here because both the words have the same meaning. Whatever may be the case the appearance of zebra makes it certain that Kāliyadvīpa must have been situated on the sea coast of East Africa.

From the above accounts it is apparent that in ancient times the internal and external trade of India was at its zenith. It exported aromatics, textiles, precious stones, toys etc. and imported many articles of perfume, precious stones, gold etc. The trade in textiles was very brisk. Silks were imported from China and the patola sarees of Gujarat were famous. From Central Asia and Balkh came furs and

pashminas. This country exported mostly cotton cloth. In this period Vārāṇasī was famous for its textiles and Aparānta, Sindh and Gujarat also manufactured beautiful textiles. According to the Bṛihadkal pasūtrabhāshya, 2 Nepal, Tāmralipti, Sindh and Sovira were renowned for the manufacture of good cloths.

The Jain literature also informs us that there was some demand for foreign male and female slaves in this country. The Antagadadasāo<sup>63</sup> informs us that slave girls were imported from the Somali land, the Oxus region, Greece, Sri Lanka, Arabia, Ferghana, Balkh, Persia etc. These slave girls wore the costumes of their countries and not knowing any language of this country used the sign language for expressing themselves.

India was also known for its trade in ivory which was exported to foreign countries. For getting the ivory, merchants advanced money to the Pulindas in the same way they advanced money to divers for getting chankshells.<sup>64</sup>

The Tanganas of the northern region who could be identified with the Tanganas of Tarai came to the Deccan for selling ivory and gold. As they did not know any Indian language they transacted business only by the sign language. They heaped their goods and covered them with their hands and did not take them off till they got their desired price. 65

The Jain literature also informs us that there was good trade in horses from northern regions. The horse traders from the frontier regions reached every corner of the country. A story informs us that one such a horse trader reached Dvärakä. There, the princes bought fat and tall horses, but Krishna purchased lean and good quality horses. 64 The donkeys of Diväliä were also famous. 67 In this period India seemed to have intimate trade relations with Iran. The articles of export and import consisted of chankshells, arecanut, sandalwood, agallochum, magenta, gold, silver, pearls, precious stones and coral. 68

In the above list India exported sandalwood, agallochum and precious stones to Iran and imported from there magenta, gold, silver, pearls and coral. In one of the Jain stories it is mentioned that an Iranian merchant, loading his ship with chankshells, arecanuts, sandalwood, agallochum and magenta from a port named Bennayada sailed. The story further informs us that when such a ship reached an island or a port then the goods were examined there in order to ascertain that it carried the same goods whose export was permitted by the king, or some other goods as well. When the Iranian ship reached Bennayada then the ruler of the place sent a banker on the ship to examine the goods and ordered him that after taking half the goods as customs duties, he should return the other half to the merchant. After this the king had some doubts. He ordered the goods to be weighed in his presence. After examining the bales it was found that in the bales of magenta some precious objects were secreted. Finding out this, the king ordered other bales to be opened. Now it became apparent that the merchant wanted to smuggle gold, silver, precious stones, coral etc. He was arrested and handed over to the guards for trial.60

It is also apparent from the Jain literature that all merchants in that period were not equally honest. After bringing precious goods from foreign countries many merchants desired not to pay the king's dues. The Rāyapaseṇiya<sup>70</sup> mentions that a merchant carrying some precious stones, chankshell and ivory, leaving the king's highway, took to difficult tracks in order to escape the customs houses. If such fellows were detected then they were awarded very heavy punishment.<sup>71</sup>

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### CHAPTER X

# TRAVELLERS AND CARAVANS IN THE GUPTA PERIOD

THE GUPTA period is regarded as the Golden Age of Indian history. In this period Indian culture crossing the boundaries of India made great impact on Central Asia and Malaysia. The carriers of this culture were merchants, the Buddhist monks and Brahman priests, who facing all the difficulties of land and sea routes, kept on the country's relation with foreign countries.

In Central Asia Indian colonies were established before the Gupta period, but in this period the cultural and trade relation with eastern countries grew considerably. In the Sanskrit literature of the period, the term Dvipāntara is used for the Eastern Archipelago. Kālidāsa mentions cloves imported from those islands (dvīpāntarānīta lavangapushpaih). The Mārkandeya Purāna¹ mentions Indradvīpa, Kaserumān, Tāmraparna, Gabhastimān, Nāgadvīpa, Saumya, Gandharva and Vāruna (Borneo) islands girded by the sea. According to the Vāmana Purāna² these nine islands were sanctified by the Indians by the performance of yajāas, wars and business (ijyāyuddhā-vānijyabhiḥ karmabhiḥ kritapāvanāḥ).

Before we inquire about the works of merchants and preachers of religions in the Gupta period, it is necessary to know an outline of the history of that period, because it informs us how in this country a state was established in the fourth century which touched all aspects of Indian culture, whether it be arts, literature, religion, politics, trade and commerce and the daily life of the people. The conquests of Samudragupta tried to bring different parts of the country under the central rule thus establishing peace on the road system of India.

In the first flush Samudragupta conquered north-western India. After that came the turn of Padmävati in Malwa and north-eastern Rajasthan where his victorious army reached Marwar upto Pushkarana (Pokharan). His military expedition in eastern India brought under his control Samatata, Daväka (Dacca), Kämarupa and Nepal. In Central India his conquest started from Kausambi. From here he proceeded to Dähala and then defeated several forest states in eastern Madhya Pradesh.

In his conquest of the Panjab, Samudragupta conquered the Yaudheyas of eastern Panjab and Rajasthan and the Madras of Jullundur and Sialkot offered their submission to him. In the end he invaded the territories of Śahanuśahis. According to history the dynasty of Kanishka ended in the third century due to the

renaissance of Iran under the Sassanians. Ardeshir I (224-241 A.D.) conquered Khorasan and Margiana, Balkh and Khwarizm which formed the northern part of the Tukhāra Empire. Ardeshir and his successors also annexed Seistan which at that time included Arakhosia and Indian Seistan as well. The existence of this extensive Iranian empire is proved by the Sassanian coins which tell us that some of the Iranian kings addressed themselves as Kushānashāh, Kushānashāhānushāh and Sakānshāh.

The Allahabad inscription of Samudragupta informs us that Samudragupta had diplomatic relations with the Devaputra Shāhanushāhīs. At first he had left the north-western frontier of India alone. Outside his military expeditions good relations between the Guptas and Indian Sassanians is evident from the fact that the Indians along with the Śakas proceeding through the Hindukush route had begun establishing colonies in Central Asia. In the Gupta period, Indian merchants were using the Central Asian routes and in the oases to the north of the Tarina Valley the Indian influence was predominant. Here in this part of Central Asia people used the local Iranian dialects and Indian Prakrits, and there was strong influence of Indian culture on the art of the land.

It is evident from Samudragupta's military expeditions in south India that he brought under his rule Dakshina Kosala (Bilaspur, Raipur and Sambhalpur in Orissa), Śrīpura (Sirpur) situated forty miles in the east of Raipur, Mahākāntāra (eastern Gondwana), Erandapalli (near Chcacole in Ganjam district, Orissa), Devarāshṭra (Yellamchili), Vizagapattan, Giri Koṭṭūra (Kothūra, Ganjam district), Avamukta (perhaps the old port of Neelapalli in the Godavari district), Pishṭapura (Pithapuram), Kaurāla (perhaps Kollur Lake near Pithapuram), Palakka (Pallakada, Nellore district), Kusthalepura (Kuttalura in North Arcot) and Kānchī.

But the conquests of the Guptas on the Indian routes did not end with Samudragupta. His glorious son Chandragupta II Vikramāditya also showed his prowess on Indian routes. There are several reasons to believe that Chandragupta II strengthened his power at Mathura. It seems that when he was firmly established at Mathura between 388 and 409 A.D., he conquered Malwa, Gujarat and Saurashtra. These conquests extended the Gupta empire to a very large extent. The identity of Chandra mentioned in the Mehrauli Iron Pillar Inscription has not yet been firmly proved. But the majority identify him with Chandragupta II and if this is correct then it is evident that he extended his conquests upto Balkh. His army had also conquered Sindh. The Great Buddhist Stupa at Mirpurkhas tells us that the Gupta power had reached upto that point. The raising of the pillar of victory at Vishnupadagiri or the Siwalik hills informs us that his armies taking the Grand Route had entered Balkh.

Kumaragupta I (415-456 A.D.) had to face the invasion of the Hūṇas, but his successor Skandagupta (458-478 A.D.) had to face their full brunt. It seems that the Hūṇas passing through the Panjab and Uttar Pradesh reached as far as Pāṭaliputra which was totally sacked by them. This is proved by the excavations near

Kumrahar near Patna. It is evident that in Skandagupta's time the city was completely sacked. But the Hūṇas could not maintain their control on the city for a long time. Skandagupta with his army was able to drive them away. He pursued the withdrawing Hūṇa forces and at Bhitari (near Ghazipur)—in an inscription—he announces his victory over the Hūṇa forces. It seems that by this defeat of the Hūṇa forces the Gupta empire escaped extinction for the time being, but the signs of its decay were evident and, therefore, it could not prolong for a long time. In the seventh century Śrī Harsha extricated Northern India from anarchical conditions and continued the cultural traditions of the Gupta period. But after him begins the history of mediaeval India.

The invasion of the Hūṇas is a well known event in history. According to the Chinese historian the Hūṇas conquered Bamyan, Kapiša, Lampaka and Nagarahāra and finally reached Gandhāra. They pushed the fleeing Kidara Kushāṇas to Kashmir and then entering the Panjab defeated the Gupta forces. Being defeated by the Indian rulers in 529 A.D., the Hūṇas turned to the south where the Sassanians could only save themselves with the help of their Turkish allies. After the Khagan Turks had broken the power of the Hūṇas, Khusrau Naushīrwān became the ruler of Balkh. After that owing to the enmity between the Iranian and the Byzantines the influence of the Turks abated a great deal.

In this age many Buddhist Chinese pilgrims visited India. Fa-Hien (circa 400 A.D.) does not give us much information about the political and geographical conditions of India. Song-yun reached Gandhära in about 521 A.D. and found the country suffering from the invasion of the Hūṇas. Both Fa-Hien and Song-yun entered India through UḍḍIvāna route. But in the middle of the seventh century Hiuen Tsiang took the route from Balkh to Taxila and while returning took the Kandhar route. In that period the region between Turfan and Kapiša was in the control of the Turks. The Kaghan Turks of Issakakol received Hiuen Tsiang very well. Reaching Tashkurghan he describes in detail the frontiers of the ancient Kushāṇa Empire extending from Iran to the Pamirs.

At that time the frontier of the Turkish empire lay at Tashkurghan, but in the north and south of the Hindukush the control of the Sassanians had disappeared. In the north Tukhäristän was divided into twenty small principalities. These were under the control of the eldest brother of the Khän of the Khagan Turks. After staying for some time at Tashkurghan Hiuen Tsiang travelled to Kapisa, Nagarahära, Purushapura, Pushkarävati and Udabhända and finally reached Taxila. Before reaching Bamyan he had left the frontiers of Tukhäristän. There were ten small principalities under the ruler of Kapisa.

After fourteen years, when Hiuen Tsiang returned from India, even then the political condition of Afghanistan was the same. During his travel the ruler of Kapisa welcomed him. Then he reached from Udabhanda to Lampaka. From here passing the Khurram valley he reached Bannu. In that period the extent of Bannu was larger than Waziristan and included the valleys of Gomal, Zhob (Yavya-

vatī) and Kandar. Proceeding further he crossed the Tobakaker range and reached Ghazni and Tarnak valley. From here crossing the Indian frontier and taking the Kela-Ghazni route he reached Jāguḍa (modern Jaguri). In the north of Jāguḍa was situated Vrijistan which could be identified with Ujiristan or Garjisitan. After this came the country of the Hazaras. According to Hiuen Tsiang this region was under the control of a Turkish ruler. Proceeding upwards he crossed the passes of Dasht-e-Nabar and Bokan. Reaching the high Logar valley his route met the Herat-Kabul route at Jalrej or reached the plain by the Kandhar-Ghazni-Kabul route. From Kapiśa passing Paghman he passed many small states on the boundary of Kapiśa and then proceeding to Khawak and the valley of Andarab reached Khost and from there reaching Badakshan and Wakhan he arrived at the Pamirs.

History tells us that the political unity in the Gupta period gave great impetus to Indian trade and markets of Ujjain and Päţaliputra became humming trade centres. The Padmaprābhṛitakam<sup>5</sup> mentions the markets of Ujjain filled with horses, elephants, chariots, soldiers, and all kinds of goods. The Ubhayābhisārikā<sup>6</sup> mentions the shops of Pāṭaliputra filled with all kinds of goods and their buyers and sellers. According to the Pādatādītakam the markets of Ujjain which was also known as international city (sāravabhaumanagara), were filled with heaps of foreign goods.

This increased the commercial activity which resulted in an improved banking system. The head of the bankers (nagaraśreshthi) had a very honourable place in the city life. The Mudra Rakshasa informs us that this head of the bankers, besides carrying on his business, was also an adviser to the ruler. The inscriptions of Kumaragupta and Budhagupta tell us that Vetravarman, the governor of Kolivarshavishaya with the help of a committee which consisted of nagarasreshthi, sarthayaha, prathama kulika, prathamasilpi and prathama kayastha, ruled the city. The chief banker was the biggest merchant and banker of the city, and the leader of the caravan transported goods from one place to another.8 The Ubhayābhisārikā9 mentions Samudradatta, son of the caravan leader Dhanadatta, as the Kubera of that age. At another place it is said that caravan leaders in that period went to foreign countries. After purchasing a lot of goods, at times they were robbed and at times even the kings forced them to part with their money. Prathamakulika was also a big merchant of the city. In this age even there was a second kulika. We do not know about his existence from inscriptions, but according to the Mahavastu,10 Prathamakulika acted for the head banker. The respect in which the chief banker, the caravan leader and the members of the bankers guild were held is evident from the fact that on special occasions they accompanied the king."

In the business transactions of the Gupta period the nigama participated fully. There is hardly any doubt that nigama represented the sarāfā of the mediaeval period. According to Brihadkalpasūtrabhāshya, is nigamas were of two kinds. One class of nigama only carried out business of banking and the other besides banking could also carry on other business transactions.

There used to be very close relationship between nigama, bankers, caravan leaders and kulikas. This is evident from the seals found from Basarh. This was also necessary because all these participated equally in business transactions.

There are many evidences about the existence of guilds in the Gupta period. Unfortunately, the inscriptions of that period do not throw much light on the subject. The Mandasor inscription of Kumäragupta<sup>14</sup> informs us that silk weavers from Läta had their own guild and its members were proud of it. An inscription of Skandagupta's time<sup>15</sup> informs about the existence of the guild of oil sellers.

An inscription of Vishnushena dated 592 A.D. throws good light on the relation between merchants and king in western India.16 The merchants living in his kingdom requested him to issue a proclamation (āchārasthti-patra) with which they could safeguard their right. The rules and regulations which he issued and which also perhaps existed in the former period throw light on the contemporary trade practices. The king could not confiscate the property forcibly if the merchant's son was alive. False cases could not be instituted against businessmen. They could not be arrested only on suspicion. If a man committed crime his wife could not be arrested for that. A case could be led only in the presence of the plaintiff and defendant. A merchant engaged in selling his goods could not be summoned as a witness. If a king or feudal chief came to visit a city, bullockcarts could not be forcibly called for service and it was forbidden to take possession of food and grain. There was also a practice that all guilds could not have their business done in one market only. That means that businessmen engaged in different professions were asked to live in different quarters of the city and that they could not stay in one quarter. Perhaps the members of the guilds were not required to pay the market tax. The tax was either deposited with the king in the palace or handed over to revenue officers appointed for that purpose. In the eyes of law, the foreign merchants were not entitled to those rights which indigenous merchants claimed. The water-drawers and indigo makers did not pay any tax. The fillers of tanks and cowherds could not be forced to do free labour. Servants working at home or in the shops could only be summoned to the court, through the court seal, message, or a peon, if they were involved only in a criminal suit, they could be summoned. Those engaged in temple worship, performing vajña or engaged in a marriage could not be forcibly summoned to the court. If a debtor was granted bail, then he could not be manacled. Neither he could be kept in the court lock-up. In the months of Ashādha and Paushya granaries were thoroughly inspected. It seems that the owner had to pay one and a quarter rupee as a tax for the department of religion. If the grain merchant after realising the tax did not inform the officers, then he was fined eight times of the fixed tax amount. It seems that some revenue officer deposited the revenue realised every fifth day. If he failed to do so then he was fined rupees six and he had also to give four annas as religious tax. It seems that prathama kulika (who is named as uttara kulika in the inscription), when there was a court case about weights and measurement, could not come outside the court. It was also incumbent on a man that if the court summoned him thrice, then he had to be present there. If he

failed to do so, he was fined two and a quarter. The counterfeiter was fined six and a quarter. It appears that the indigo manufacturers had to pay a tax of three rupees. The same amount had to be paid by the oil merchants. Those merchants who went outside the country for a year were exempted from any tax payment when they returned to their country, but if the visits were frequent they had to pay an exit tax. The hire and taxes on the boats loaded with goods were twelve rupees and a religious cess of one and a quarter rupees was also levied. The loads on buffaloes and camels were taxed at one quarter rupee which included the religious cess and each bundle was charged a tax of one and a quarter rupee and those bundles which were hung on pingoes at four annas each. On loads of foods the tax was two vimasopaka which included the religious cess. On a boat load of paddy, the cess of three rupees was realised. A boat loaded with dry wood had to pay a tax of one and a quarter rupee which included the religious cess. A boat loaded with bamboos had also to pay the same amount of tax. But those who carried paddy on their heads had not to pay any tax. From the loads of cummin, coriander and mustard, two handfuls were taken out as samples. At the time of marriage, yajñas and festivals no tax had to be paid. The boat full of wine casks had to pay a tax of rupees five and a religious cess of one and a quarter rupees. Perhaps a boat carrying hides had to pay a tax of one and a quarter as tax which included the religious cess. On a wine named sīdhu the tax was one fourth of its price. Printers, weavers, and cobblers were perhaps forced to pay a tax, half of the amount of the prices of their goods. Forced labours would be taken from ironsmiths, barbers and potters.

The above trade rules and regulations throw light on certain aspects of Indian trade and commerce. It seems that merchants had taken full precautions to safeguard themselves against the court orders. We also know about the rates of taxes on different kinds of goods. It seems that some kind of religious cess was charged on all kinds of goods. Somehow calico-printers, weavers and other artisans had to pay very heavy taxes.

The Jambūdvīpa prajūaptī<sup>17</sup> and the Mahāvastu datable to the Gupta period name various types of guilds of their time. The Jambūdvīpa prajūapti mentions eighteen traditional guilds named as follows: (1) potter, (2) silk weavers (paṭṭailla), (3) goldsmith, (4) cooks (sūvakāra), (5) singers (gandhabba), (6) barbers (kāsavaga), (7) garland makers, (8) vegetable growers (kāchhī), (9) the betel leaf sellers, (10) cobblers, (11) oil-pressers (jantapīlaga), (12) sellers of napkins (gaūchhī), (13) calico-printers (chhimpa), (14) braziers, (15) tailors (sīvaga), (16) cowherds, (17) hunters (Bhilla), and (18) fishermen.

The literature of the Gupta period often mentions the virtues of business. The Pañchatantra<sup>13</sup> after recounting many kinds of professions praises trade and commerce because they yielded good name and money. The trades of the period are divided into seven categories namely: (1) business in perfumes (gandhavyavahāra), (2) business in mortgage and banking (nikshepapraveia), (3) dealing in cattle (goshthīkāra), (4) receiving the known buyers, (5) declaration of the false values of the goods, (6) keeping false measurements, and (7) the export of goods to foreign

countries (desantarabhāndanayanam). The profession of perfumers is praised because it yielded very handsome profit. The banker has not elicited good opinion from the writer of the Paāchatantra as he is said to pray to God that the depositors should die to enable him to swallow the deposited amount. The cattle dealers always thought that the cattle was their only wealth. The merchants always thought that if known buyers came then they could have a good business with them. Dishonest merchants delighted in keeping false weights and measures.

On the foreign trade the profit was from two hundred to three hundred per cent. However, to carry on this trade it was necessary to ensure the safety of the roads. It seems that in the Gupta period there was an officer in charge of the roads. We do not know about his duties, but it could be surmised that he looked after the comforts of the travellers and in the frontier regions ensured their safety against the inroads of the enemy. The Nalanda inscription of Yaśovarman tells us that he had one Tikin (tigin) who was his mārgapati19 or chief of the road. From tigin it seems that the officer was perhaps of Turkish origin.

We have seen above that in the Gupta period armies constantly marched on the roads. The march of the army in this age has been very picturesquely described by Bana. Harsha, after performing the household rites, ascended the throne. After distributing awards, he ordered the release of prisoners and thereafter the army was set in motion, shouting victory to the king. The march started from a temple near the Sarasvati river and from there at the request of the village chief he ordered the army to move.

At the close of third watch of the night the marching drums were beaten. As soon as the drums rattled there was a great confusion in the camp. The officers were aroused and the commanders asked the barrack superintendents to begin their work. Thousands of torches were lighted and hearing the stern orders of the commanders, the horsemen got up. The elephants and horses from the stalls were brought out. The erectors in charge of the camps (grihachintaka) began gathering the small camps (patakutis) and kanats (kandapata), awnings and carpets. The officers in charge of the equipments loaded trays, bowls and other goods on the elephants. Women of good families used bullock-carts for travelling and the women mounted on horses proceeded in front of the maid servants who were led by infantry. Fat bawds could walk with difficulty. The soldiers before marching applied tilaka on their foreheads. Big commanders were riding fully caparisoned horses which were accompanied by monkeys in order to safeguard them against diseases. Before the march elephants were painted by women. After the army had started its march some wicked chaps looted the grain left behind. Attendants were mounted on bullock-carts and oxen. In this turmoil the oxen of the merchants were disturbed. People were praising the ponys and donkeys had fallen down. 11 At the time of the march big feudal chiefs were mounted on elephants accompanied by armed horsemen. At the sunrise the conchshells were blown ordering the march and the king proceeded on a war elephant. People began fleeing. The elephant surrounded by mace bearers proceeded slowly and the king

began acknowledging the salutation of the people and asking their welfare by smiling or nodding.

After that musical instruments began playing and the crowd of chauri- and umbrella-bearers proceeded forward. Meanwhile, a multitudinous babble started on as follows: 'March on my son!' 'Good Sir, why do you lag behind.' 'Here is a galloping horse.' 'Friend, you hobble like a lame man, while the vanguard here is bearing down furiously upon us.' 'Why are you hurrying the camel?' 'Ramila darling, take care not to get lost in the dust!" 'Don't you see the barley-meal sack leaks.' 'What's the hurry, go ahead.' 'My ox, why are you leaving the track and running among the horses?" 'Are you coming, fishwife?' 'You female elephant, you want to go among the males.' 'Hullo, the sack has moved on our side and the sattu is dribbling; you don't heed my bawling.' 'You are going astray down the precipice quietly, you self-willed brute.' 'Porridge man, your jar is broken.' 'Laggard, you can suck the sugarcane on the way.' 'Quiet, your bull.' 'How long, slave, are you to gather jujube fruit?" 'We have a long way to go; why do you linger, Dronaka, now this long expedition is at a standstill for one loafer.' 'The road in front is all up and down, old fellow, see you don't break the sugar kettle.' 'The load of grain is too heavy, Gandaka; the bullock-cart cannot carry it.' 'Quick, slave, with a knife cut a mouthful of fodder from this lean field who can tell the fate of this crop when we are gone.' 'Keep away your oxen, fellow. This field is guarded by watchmen.' 'The wagon is stuck fast, harness a strong pulling steer to the yoke.' 'You mad fellow, you are crushing women, are you blind?' 'You confounded elephant driver, you are playing with my elephant's trunk.' 'Trample him, you savage brute.' 'Brother, you are tripping in the mud!' 'O friend of the distressed, raise this ox from the mud.' 'This way boy! in the thick of the dense elephant squad, there is no getting out."23

The knaves were enjoying the food left by the army but poor feudal chiefs mounted on oxen were bemoaning their fate. Servants were carrying the pots and pans of the king and the servants employed in the royal kitchen were taking with them, animals, birds, pots of butter milk and kitchen utensils.

The farmers from whose fields the army passed were frightened. Bringing dahi, jaggery, sugar and flowers to the army, they requested the soldiers to spare their fields and praised or abused the local officials. Some praised the king while others were afraid to lose their property. Howsoever big Harsha's army had been, there is no doubt there was lack of discipline and this was the reason that he was defeated by the Chāļukyan king Pulakeśin II.

Relations between India and China were strengthened during the Gupta period though we know that regular relation between India and China began in 61 A.D. when the Han-kui-chin king sent an embassy towards the west to bring Buddhist monks from India to China. Dharma-rakshita and Kasyapa Mātanga brought with them many Indian manuscripts and raised the first vihāra in China. The relation between India and south China was perhaps established in the second

century B.C. but this relation was further strengthened because of Buddhist religion.

As we have seen above, during the Han period, roads from China to India passed through Central Asia. In Central Asia a synthesis of Indian, Chinese and Iranian cultures gave birth to a new composite culture. The region in which this new culture flourished was bounded in the north by T'ien-shan, in the south by the K'un-lun, in the east Nan-shan and in the west the Pamirs. The rivers flowing from the mountains flowed slowly to the deserts of Taklamakan and were gradually lost in the sands. The ancient Indian colonies were situated in the valleys of these rivers. As we have pointed out above, Buddhism gained its foothold in Central Asia during the Kushāṇa period. The inhabitants of Kashmir and north western India migrated to Khotan and Kashgar where they built small colonies which took pride in calling themselves as Indians.

In the Gupta period as well, the Central Asian route following the Kabul river reached Hadda, Nagarahara and then to Bamyan. The Bamyan route proceeded to Balkh. From here one route proceeded to Sogdiana and crossing the Jaxartes reached Tashkent, and then from there striking to the west and crossing the passes of T'ien-shan reached Uch-Turfan. The second route passing Badakshan and the Pamirs reached Kashgar. The shortest route between India and Kashgar passed through the Upper valley of the Indus river. This route passing the valleys of the Gilgit and Yasin rivers, reached Tashkurghan where both the routes met. After reaching Kashgar the Central Indian route was divided into two branches. The southern branch followed the Tarim river and on this route lay Kashgar, Yarkand, Khotan and Niya and many small Indian colonies. The inhabitants of these places were mostly of the Iranian stock who had absorbed the people of Indian origin. Khotan was perhaps founded as a colony in Aśoka's time. Here was located the Gomati-vihara which was the biggest Buddhist monastery in Central Asia. Here, many Chinese acolytes received training in Buddhism. On the northern route of Central Asia near Uch-Turfan were situated Bharuka, Kucht, Agni (Karasahr) and Turfan. Among the rulers of Kuchi were Suvarnapushpa, Haradeva, Suvarnadeva etc. The Kucht language is an independent branch of the Indo-European.

The northern and southern routes of Central Asia met at the Jade Gate near which are situated the famous caves of Tun-Huang. Here the Chinese pilgrims got shelter. At the time when Indian merchants and Buddhist monks, facing many difficulties, passing through Central Asia reached China, at the same time Indian navigators were developing trade and cultural relations with China and Indonesia. We have noted above that Indian merchants had begun settling down in Suvarnabhumi in the Kushana period. In the Gupta period many more Indians began migrating to Malaysia and Indo-China.

In the early centuries of the Christian era the Indian colonists established many colonies in the far-east in which Fu-nan, Champa and Śrīvijaya were the

most important. Fu-nan included Kambuja and some parts of Thailand and it was founded by the Brahman Kaundinya who had married the queen of that region. In the sixth century the new Indian immigrants establishing their base in Fu-nan founded Kambuja. In its golden days Kambuja included modern Cambodia, Thailand and other neighbouring states. In the second century A.D. the foundation of Champa or modern Annam was laid. Champa was closely related with China both by the land and sea routes. Kambuja and Champa were indebted to Indian culture for a very long time. Sanskrit became their state language and Brahmanism their religion.

In the south of Malaya Peninsula, on the eastern coast of Java and Sumatra the kingdom of Śrīvijaya arose which gained great fame in history. In the very extensive empire of Śrīvijaya were included the Malaya Peninsula, Java and other regions. Fa-hien informs us that in the fifth century A.D. Java was the centre of Hindu religion. However, in the sixth century Buddhist monks proceeding to China brought Buddhism there.

In the seventh century the name Java was replaced by Śrīvijaya. Its ruier maintained close relationship with India and China. We are informed by Itsing that arrangements were made in Śrīvijaya to teach both Buddhism and Brahmanism.

The accounts of Chinese pilgrims inform us that Indian ships sailed to Indonesia and China regularly, and these routes were equally used by Buddhist pilgrims and Indian merchants. In the middle of the seventh century when Chinese lost their control on Central Asia then its connection with India was maintained through the sea-route only.

The Buddhist literature informs us that in the Gupta period as well, Bharukachchha, Sopara and Kalyan on the western sea coast of India and Tamralipti on the eastern sea coast, were famous ports. Kosmas Indikopleustes in his work, Christian Topography34 informs us that in this period Sri Lanka had become a great centre of sea-trade. Here, ships from Iran and Abyssinia came and also ships sailed from here to foreign countries. The Chinese and other markets exported here silk-cloth, agallochum, sandalwood and other articles. The merchants of Sri Lanka in their turn re-exported these articles to the sea-coast of Kerala and Kalyan. In this period the port of Kalyan was famous for copper, sesamum and very fine cotton textiles. From Sri Lanka ships proceeded to the port of Sindh which dealt in musk, castor seed and nard. Ships from Sindh sailed directly to Iranian ports and Adulis. These regions exported their goods to Sri Lanka. Kosmas has mentioned the following ports Sindus (Sindh), Orrhotha (Saurashtra), Kalliana (Kalyan), Sibor (Chaul), and Male (Malabar). In the famous markets of the period were Parti, Mangarouth (Mangalore), Salopatana, Nalopatana, and Poudopatana which exported black pepper. On the eastern seacoast of India the port of Marallo exported chank-shells and Kaveripattinam exported alabandenum. After that the writer mentions the clove country and China.

We have seen above that in the Gupta period the term Dvipantara was used for Indonesia. The Tānagurudevapaddhati informs us that the ships from Dvīpantara always cast anchor in Indian ports. 25

Even though travelling had considerably increased during the period both on land and sea routes, the difficulties remained the same as those in previous period. Fa-hien, whose visit to India lasted between 399 A.D.-414 A.D. mentions the difficulties of the sea-voyage. Fa-hien caught a big merchant ship from Sri Lanka which carried two hundred travellers and which was also accompanied by a smaller ship which could rescue the passengers if the larger ship met with some accident. The ship sailed in favourable wind for two days but after that it had to face a heavy cyclone and it began leaking. The merchants and others were anxious to board the smaller ship, but those on the smaller ship feared that large number of travellers from the bigger ship might overpower them. They at once cut the rope joining the two ships. The merchants were frightened to death and fearing that their ship might be filled with water they began throwing their goods into the sea. Fa-hien as well threw his utensils and other articles into the sea, but he feared that merchants might throw his images and manuscripts into the sea. To get the succour of Kwan-yin he prayed and took a vow to devote his life to Buddhist communities in China. He said, "I have taken such a long journey for the sake of religion, I hope that by your supernatural power you will allow me to return safely."

The wind blew for thirteen days and nights. After that the ship reached an island at the ebb tide. There, the sailors found out the holes in the ship from which water was leaking. They were plugged and the ship again started on its journey.<sup>26</sup>

On the sea there were many pirates, to meet whom meant speedy death. The great ocean spread out in a boundless expanse. There was no knowing east or west; only by observing the sun, the moon and the stars it was possible to follow the right direction. In the dark or rainy weather the ship wafted by the force of the wind, without any definite course. In the darkness of the night only the great waves were to be seen, breaking on one another, and emitting a brightness like that of fire, with huge turtles and other monsters of the deep all around. The merchants were full of terror, not knowing where they were going. The sea was deep and bottomless, and there was no place where they could drop anchor. But when the sky became clear, they could tell east and west and the ship again went forward in the right direction. If she had run on any hidden rock, there would have been no way of escape. After proceeding in this way for more than ninety days, they arrived at Java, where various forms of beliefs and Brahmanism were flourishing, while the state of Buddhism there was not worth speaking of. After staying there for five months Fa-hien again embarked in another large merchantman, which also had on board more than 200 men. They carried provision for fifty days, and commenced the voyage on the sixteenth day of the fourth month.

For reaching Canton the ship took north-easterly direction. On the sea they

again met a heavy cyclone which frightened the travellers but Fa-hien prayed Kwan-yin as before and remembered the Bhikshu Community of China which gave him courage. In the meanwhile the morning dawned and the Brahman travellers consulting among themselves came to the conclusion that the disaster was due to the presence of the Buddhist monk. Therefore, they decided to put Fa-hien on an island because it was not advisable to endanger many lives for the sake of one. At this, a companion of Fa-hien told them that if they decided to put him on an island then they had to put him there as well. If they wanted they could take his companion's life, but if they forced Fa-hien to get down then he was bound to inform the emperor of China about the incident. At this the Brahmans were very frightened and lost courage to carry out their decision. In the meanwhile the sky darkened and the pilot lost the direction. In this condition the ship floated for seventy days. All the articles of food were finished and they were forced to use sea-water for cooking and other purposes. The sweet water was rationed among the passengers. When all the food and water was exhausted the travellers consulted among themselves that it took only fifty days to reach Canton and it seemed that they had lost their way. At this they took north-westerly direction and in twelve days they reached the southern point of the Shantung promontory; there they got fresh water and vegetables.

As we have seen above in the Gupta and post Gupta age it was due to the efforts of the Buddhist monks that Indian culture penetrated Central Asia and China. Fortunately, the Chinese Tripuaka has preserved some accounts of the monks whose courage in preaching their belief was extraordinary. No difficulty could stop their progress. We give below the accounts of the life of some such distinguished monks.

In the Gupta period, Dharmayasas, a Buddhist monk of Kashmir origin, reached China between 397-401 A.D. After travelling all over China he translated many Sanskrit manuscripts into the Chinese. A second Buddhist monk named Punyaträta reached China between 399-415 A.D. and he also translated many Buddhist works into the Chinese. Among the Buddhist monks proceeding from India to China, Kumārajīva occupies a special position. His father Kumāradatta reached Kucha from Kashmir and there he married the sister of the ruler. Kumārajīva was born there. At the age of nine he came to Kashmir and studied Buddhist literature there. After staying in Kashmir for three years, Kumārajīva with his mother reached Kashgar. Staying there for some time he reached Turfan. In 383 A.D. the Chinese occupied Kucha and Kumāragupta was arrested and brought to Long Chow. There he lived till 398 A.D. with Li-Kuang. Afterwards he came to Ch'ang-ngan and died there. But the second Buddhist literature there occupied Kucha and Kumāragupta was arrested and brought to Long Chow. There he lived till 398 A.D. with Li-Kuang. Afterwards he came to Ch'ang-ngan and died there.

Another Buddhist monk, Buddhayasa, after travelling a great deal, reached Kashgar from Kashmir and there he taught Vinaya to Kumarajiva. After the occupation of Kucha by the Chinese he disappeared from Kashgar for ten years and then returned there again. There he came to know that Kumarajiva was in Ku-Tsang. After crossing the desert he reached there to meet him, but came to

know that Kumarajiva had proceeded to Ch'ang-ngan. In 413 A.D. he again returned to Kashmir. 29

Gautama Prajñāruchi was an inhabitant of Vārāṇasī. He reached Lo-yang in 516 A.D. via Central Asia. He translated many Buddhist works into the Chinese between 538 and 543 A.D. Upaśūnya was the son of the ruler of Ujjain. He reached south China in 546 A.D. There at King-Ling he translated many Buddhist works into the Chinese. In 548 A.D. he reached Khotan. A.D.

Jinagupta was an inhabitant of Gandhara and lived in Peshawar. After studying Buddhism, he accompanied by his teacher, went on a long journey to preach Buddhism. After living at Kapiśa for a year he arrived at the western foot of the Hindukush and reached the territory of the white Huns and from there passing Tashkurghan reached Khotan. After staying there for some time he reached Chan-Chow (Sinin, Kansu). During his tarvels, Jinagupta had to face many difficulties and most of his fellow travellers died of hunger and thirst. In 559-560 A.D. he reached Ch'ang-ngan and there he translated many Buddhist works into the Chinese. Afterwards he returned to north western India and lived with Kaghan Turks for ten years. In 585 A.D. he again returned to China. 32

Buddhabhadra was an inhabitant of Kapilavastu. At the age of thirty, after acquiring an intimate knowledge of Buddhism, he decided to travel along with his friend Sanghadatta. After staying in Kashmir for some time he was chosen by the Buddhist Sangha to undertake journey to China. Travelling with Tche-Yen, fellow traveller of Fa-hien, he reached China via the Pamirs. It is also mentioned in his biography that he had reached Tonkin, perhaps through Assam, the upper valley of the Irawady and Yunan. Whatever may be the case, from Yunan he caught a ship for China. Owing to the estrangement with the ruler he had to leave south China. From there he reached to the west to Kiang-Ling. There he met Yuantchao (420-422 A.D.) and at his invitation he reached Nankin, 22

Among the travellers in the Gupta period, Guṇavarman occupied a special place. He belonged to the royal family of Kashmir and at the age of twenty he was initiated in Buddhism. At the age of thirty he was offered the kingship of Kashmir which he refused. Leaving the state he wandered for a long time and finally reached Sri Lanka and preached Buddhism there. From there he went to Java and initiated its ruler in Buddhism. His fame began spreading all over. In 424 A.D. he received the invitation of the Emperor of China, but Guṇavarman did not like to go there. Accompanied by the Indian caravan leader Nandi on a ship, he decided to visit smaller countries, but the ship losing its direction reached Canton and in this way he met the Emperor of China in 431 A.D. He stayed for some time in the Jetavana Vihāra at Kien-Ye and there translated many Buddhist works into the Chinese. 31

Dharmamitra was an inhabitant of Kashmir and he received training under many great Buddhist teachers. He was a great wanderer. He at first reached Kucha

and lived there for some time and from there he reached Tun-huang. In 424 A.D. he undertook a journey to south China where he died in 447 A.D. 25

Narendrayasas was an inhabitant of Uddiyāna in the north-west. At his very young age he left his house and travelled all over India. After returning back to his country he crossed the Hindukush and reached Central Asia where the Turks were fighting with Avares. In this fight the Turks completely annihilated the Avares. He died in 589 A.D.<sup>26</sup>

Dharmagupta was an inhabitant of Gujarat. At the age of twenty-three he was living in Kaumudi Sangharama of Kanauj. After that he lived for five years in the Devavihara of the Panjab (Takka deša). From there he reached Kapiša with a view to travel to China and lived there for two years. There he heard from caravans about the flourishing state of Buddhism in China. Crossing the western foot of the Hindukush he travelled to Badakshan and Wakhan. After that he stayed at Tashkurghan for a year and then reached Kashgar. After living there for two years he reached Kucha. After staying there for some years, while travelling to Kia-Chow he died of thirst in the desert in 619 A.D.<sup>27</sup>

Nandi was an inhabitant of the Middle Country. He stayed in Sri Lanka for some time and travelled extensively in the country situated in the South Seas. There he acquainted himself with the literature, customs, and manners of the people. He reached China in 655 A.D. In 656 A.D. the Chinese Emperor sent him to the countries of the South Seas in search of medicinal herbs. In 663 he again returned to China. 25

In the travel accounts of Buddhist monks we come across the difficulties which they had to face in the waterless desert. One such account is available from the travel account of Fa-hien. He began his travel in 399 A.D. from Ch'ang-ngan (a district of Shen Se). From Ch'ang-ngan, Fa-hien with his comrades reached Lung (western Shen Se) and from there he proceeded to Chang-Yih (Kan-chow district of Kan-suh). There the party heard about the difficulties of the route. After staying there for some time they reached Tun-huang. There the officer of the place equipped them for travelling in the desert. The people believed that the desert was full of ghosts and hot air always blew there and when the travellers were faced with these elements they perished. One could not meet any living being in the desert. Even after wandering for some time it was difficult to find out how to cross it. The only indications of the route were the dried bones of animals and men scattered along it.39 After crossing this terrible desert Fa-hien and his comrades reached Shen-Shen (Lobnor), and from there, after fifteen days travel, they reached Khotan and stayed there in Gomati Vihara and saw there the famous chariot festival. From there Fa-hien passing Yarkand reached Ladakh via Skardu. Travelling along the Indus river the party reached Uddtyana. From there it proceeded to Peshawar and finally to Taxila. From there they came to Nagarahara and staying for some time in the country of Roh they reached Bannu. From Bannu catching the Grand Route they reached Mathura; and from there they visited

Sankäsya. Crossing the Ganga at Kānyakubja they reached Sāketa and then travelled to Śrāvastī, Kapilavastu, Vaišālī, Pāṭaliputra, Rājagriha, Gayā and Vārāṇasī. Thus after completing his pilgrimage he stayed at Pāṭaliputra for three years. From there he proceeded to Champā and then following the Ganga he reached Tāmralipti. There he caught a big ship and reached Sri Lanka in fifteen days,40 where he met the Sabeans of Arabia.41

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### CHAPTER XI

## INDIAN TRAVELLERS AND MERCHANTS FROM THE 7TH TO 11TH CENTURY A.D.

WITH THE death of Harsha, the age of great empires was practically over and anarchical conditions prevailed all over the country. Kanauj tried to raise its head but the rulers of Kashmir did not allow it to do so. After that, to establish their suzerainty in the valleys of Ganga and Jamuna, there was constant warfare between the Pālas of Bengal and Bihar, the Gurjara-Pratihāras and Rāshṭrakūṭas of the Deccan. After constant warfare of almost half a century in which victory passed sometimes in one hand and sometimes to the other. In the end, however, the Gurjara-Pratihāras established their empire firmly. Before A.D. 836 they brought Kanauj under their banner and owing to the prowess of the famous Bhoja and Mahendrapāla their empire extended from Karnal to Bihar and from Sindh to Saurashtra and northern Bengal. On account of the strength of the Gurjara-Pratihāra empire the Muslim kingdom in Sindh received a great shock and, therefore, the Gurjara-Pratihāras were regarded as the greatest enemy of Islam. If the Arabs had not received the help of the Rāshṭrakūṭas then perhaps the Arab kingdom of the Sindh would have come to an end.

After the death of Harsha in the middle of the seventh century, Hiuen-Tsiang gives a survey of the states in India at that time. In north-western India the boundary of Kapiśa included the valley of the Kabul river and the land extending from the Hindukush to the river Indus. The boundary of this state passing the right bank of the Indus reached Sindh and included Peshawar, Kohat, Bannu, Dera-Ismail-Khan and Dera-Ghazi-Khan. Jäguda was situated in the west of Kapiśa and it exported saffron. This Jäguda has been identified with the Jabul of the Arab geographers. To the north of Kapiśa was situated Opiane, but it seems that most of Kapiśa was governed by feudal chiefs. The direct rule of Kapiśa extended on the route from Kabul to Udabhāṇḍa and from Kapiśa to Arakhosia and the route from Jäguda to the lower Panjab.

To the west of Kapiśa was located Ghor. In the north-west, the mountain ranges of Koh-baba and Hindukush separated Bamyan and the Turkish empire lying to its south. In its north, from Lampaka to the Indus was located Kafiristan. On the left bank of the river, two feudatory chiefs of Kashmir, namely Urasa and Simhapura were located. From Simhapura began the territory of the Takkas which extended from the Beas to Simhapura and from Sialkot to Multan. In the south, Sindh was divided into three parts in which the lowest part extended to the sea and its ruler was a descendant of Mihirakula. On his return journey Hiuen-

Tsiang not only travelled in Sindh but also visited the Hingol river in south Baluchistan. This territory was under the control of the Sassanians, but in spite of all this, the territories of Iran and Kapiśa did not touch each other except where the route from Balkh and Gandhāra touched the boundary line of these two states. In the region, both the countries appointed their frontier guards. Except at this place, nobody controlled the territory between Iran, Afghanistan and Kapiśa. In the west lay Ghoristan, Garjistan, Seistan, and Herat, and on the other side lay Jāguda. In the south-east lay the country of nomads which is named by Hiuentsiang as Ki-Kin-Na and which has been identified by Arab geographers as Ka-Kan. This territory of the Brahuis extends to the south of the Bolan Pass.

The inquiry into the politico-geographical conditions informs that parts of the Hun empire were annexed to the empire of Yazdıgird and some parts were included in the empire of Harsha. It also tells us that in the seventh century India extended from the right bank of the Indus to the Iranian plateau. The ancient boundary of this land starting from Lampaka divided Kapisa into two parts. In the west Vrijistan and Jaguda were left out, but the frontier extended to the Hingol river.

The political map of north-western India in this century also serves as a pointer to the coming events. Hiuen-tsiang in his first chapter informs us that the boundary of the Iranian empire followed the Murghab in the west of Tukharistan. His eleventh chapter tells us that the Roman Byzantine empire was situated in the north-west of Iran. There was constant warfare between the two empires and in the end the Arabs defeated the Romans. We also come to know from the same sources that in that period the Sassanians controlled Baluchistan, Kandahar, Seistan and Drangiana. The route the Arabs took to conquer these territories has not yet been ascertained by historians; also a problem is posed that why after occupying Sindh and Multan the Muslim forces took almost three hundred years to conquer the high territory of the Panjab. According to Foucher the reason for this is that the route from Karmania and Baluchistan and Sindh after the battles of Kadisia (636 A.D.) and Nihaband came into the hands of Muslim forces. But the routes from Kapisa to Gandhara passing from north to south and north to west were not within their control, even after these routes had slipped from the hands of the Iranians they passed into such hands who were in a position to defend them properly.

History tells us how quickly the Muslim forces conquered Asia and Africa. Weakened by constant warfare with the Byzantine, the Sassanian power came to an end in one stroke. In 652 A.D. Yazdtgird III fled from that route and it was the same route on which Darius was killed in Merv. The advancing Arabs reached Balkh and in this way they were able to cut the land route between India and China. It is evident from this that the Indo-Iranian territory had passed into the hands of the Arabs. But it is strange that while Kabul fell in 870 A.D., Peshawar fell only in 1009 A.D. The travel of Wu-Kong to Kandahar between 751-764 A.D. informs us as if nothing had happened in that territory. We are further informed that the Chinese had full control of Central Asia.

At the time when the Arabs were establishing themselves on the north-western froatier of India, even before that in 636 A.D. the Arab flotilla had attacked Broach and Thana. This attack took place both from land and sea routes but it yielded no results. The Governor of Sindh Junayd (between 724-743 A.D.) carried out several expeditions to Saurashtra and Gujarat but as evident from the Navasari Copper Plate (738-739 A.D.) Avanijanāśraya Pulakeśin did not allow them to have their own way. It seems that the Arab forces attacking Sindh and advancing from there to Kutch, Saurashtra and Chāpotkaṭy and Gujarat proceeded as far as Navasari. It seems that the Arab armies must have passed through the Rann of Kutch. The Gurjara-Pratihāra ruler Bhoja I perhaps defeated these Muslim forces in 755 A.D. The fall of Valabhi was also due to the Arab inroads. But in spite of ceaseless efforts these military expeditions did not produce much result and that was due to the brave front which the Gurjara-Pratihāras put against them. If the Rāshṭrakūṭas had not helped the Arabs then they could not have maintained their foothold in Sindh.<sup>2</sup>

On account of rebellions and overcentralisation, the Sassanian forces could not face the well knit Arab forces. As against this the Hindus, on account of the local tribal affiliation and decentralisation, could face the Arabs for a longer period. The great courage and stamina of the Arabs gave them the final victory but this took a very long time. India as a matter of fact was conquered by the Turks and Afghans who had accepted Islam. But even they took some time. It seems that when in north-western India the tribal power had declined then it became easier for the conquerors to advance further, even then, five hundred years after the Arabs had put their feet into this land, Qutub-ud-din Aibak could mount the throne of Delhi in 1206 A.D. and only after hundred years Ala-ud-din Khalji managed to subdue the major part of India.

In Central Asia, China in 630 A.D. conquered the southern part of the Turkish empire and in 659 A.D. its eastern part. But this loosely knit Chinese empire could not face the Arabs. In about 705 A.D, the Arabs conquered the Trans-Oxus country. When such events were taking place in the north, almost parallel events were happening in Afghanistan. The Arabs were being held constantly after leading military expeditions against Seistan, Kandahar, Baluchistan and Makran. In 712 A.D. Muhammad bin Qasim followed the route of Alexander and decided to conquer the entire Indus valley. He could not fulfil his wish, but the Arabs were able to establish themselves finally in Sindh and Multan. At that time the high plateau of Afghanistan was caught in the pincer movement. But after the fall and death of Muhammad bin Qasim the situation saved the Sahis of Kabul from extinction, because Muhammad bin Qasim could not establish direct contact between his Indian territories and Khurasan. It took almost 350 years for Muslims (614-1022 A.D.) before they could control the Grand Route to India.

After the fall of the Sassanians in 652 to 659 A.D. the Turks received setback at the hands of the Chinese. When the Muslim invasions started at that time Tukharistan, Kunduz and Kabul were under the control of the Turks. A letter from the Turks to the Chinese court written in 718 A.D. informs us that their empire extended from Tashkurghan to Zabulistan and from the Murghab to the Indus river. The son of the same Turkish king in a letter written in 727 A.D. informs us that his father was arrested by the Arabs, but the Chinese emperor did not care for his letter; Kapiśa was also reduced to the same state. In 664 A.D. it had become a tributary of the Arabs. However, in 682 A.D. the Arabs received a setback in their attacks on Kapiśa. In the first part of the eighth century Kapiśa was under the control of the Chinese but in 751 A.D., the Chinese balloon burst but even then owing to the feuds between Umayyads and Abbasids and the independence of Khorasan, north-western frontier of India gained some peace.

In 751 A.D. the Chinese lost their control in the western part of their empire. In the same year the Chinese emperor ordered his ambassador Wu-sung to bring the envoy of Kapiśa along with him, but the ambassador feared to cross the route in the Trans-Oxus country and therefore, he took the difficult route between Khotan and Gandhāra. After visiting the places of Buddhist pilgrimage he returned to his country after forty years. According to him the Turkish princes of Kapiśa and Gandhāra regarded themselves as descendants of Kanishka and they always looked after the Buddhist establishments. Kashmir had gained much prestige and power in the time of Lalitāditya. For three or four generations no event of any importance took place, but all of a sudden in 870-871 A.D. Yāqūb the governor of Khorasan, conquered Bamiyan, Kabul and Arakhosia. The pincer movement of Yāqūb taking within its fold the capitals of Balkh and Herat turned to Seistan and thus it opened the route for the future Muslim conquests.

The Muslim historians assert with one voice that at that time Kabul was ruled by the Śāhīs and this opinion is supported by modern historians as well. According to Foucher the capital of this region was Kāpiši not Kabul. However, the Arab historians do not mention Kāpiši as it was pillaged between 792-797 A.D. After this incident it appears that the city had shifted itself to the south of Kabul, and perhaps due to this fact the Muslim historians mention the Śāhīs of Kabul.

The shifting of the capital from Kāpiši to Kabul must have happened after 793 A.D. The old Kabul situated between the villages of Shewaki and Kamari was conquered by Yāqūb in 871 A.D. As the Arabs established their capital at Mansura in Sindh, in the same way they established their own Kabul near the old Kabul. The reason for this may be that they smelt idolatry in the old cities of the Hindus. According to Istakhrī, the Muslims of Kabul lived in the fort of Bala Hisar and the Hindus in its suburbs. After the Hindu merchants and artisans had accepted Islam by the end of the ninth century the new Kabul had developed into a big city. Even then for two hundred and fifty years it could not compare with the glories of Ghazni. But in 1150 A.D. after Ghazni was destroyed, the importance of Kabul increased.

To conquer the lower Kabul valley and the region of Taxila the Muslims took nearly 250 years. From 872-1022 A.D. the region from Laghman to Gandhara

and the valley of Kabul and northern Panjab was under the control of Indian rulers who in order to safeguard their independence offered stiff resistance to the growing power of Islam. The last Sahī king who is named as Lagh-Turman by Alberunt was deposed by his minister Lalliya. The Rajatarangint informs us that this event must have taken place before Yaqub, because in Kabul he could capture only one military commander. Historians are generally of the opinion that after the fall of Kabul the region around it also fell in the hands of the Muslims and on account of this the Hindu rulers were unable to visit their temples in Kabul, neither they could bathe in the river. Unlike the old times Peshawar was no longer their winter capital. They had shifted from there to Udabhandapura to safeguard themselves against the Muslim inroads. Even though their empire was extensive, without Kohistan and Kabul the fall of the Hindu Sahīs was imminent. In this unequal war with the Islamic forces, they showed marvellous courage and their end came fighting valiantly against their enemies. Alberunt and the Rajatarangina affirm that after their fall the gateway of India the north-west frontier was opened in the same way as after the fall of Prithviraja the gateway of north Indian plain lay open to the Muslim conquerors.

However, we cannot praise the Muslim opponents of the Sahīs in the same way. Their opponents were the Muslim slave Turks. These Seljuk Turks not only conquered Asia Minor, but Europe had also become very troubled by them and as a counterblast the crusades had started. Insulted by an Amīr of Bokhara, Alptigin took shelter in Ghazni. He was followed by Subukţigin whose son Mahmūd led many expeditions against India. Between 997-1030 A.D. he led seventeen military expeditions and pillaged the land between Kangra to Somnath and Mathura to Kanauj. Even after amassing great treasures his greed did not abate. He spent all this money in decorating Ghazni but after 120 years of his death the avenging Afghans destroyed Ghazni after pillaging it.

We need not deal here at length the wars between the Hindu Sahis and. Ghaznavids. However, after the death of Trilochanapala the Grand Route of India came under the complete control of the Muslims. The Hudud-e-Alam (982-983 A.D.) gives us the political map of India in the end of the tenth century. In the territory extending from the coast of Oman to the eastern bank of the Indus river, Sindh and Multan were independent states. The boundary of this territory penetrated as far as Lahore but Jullundur and Kanauj were under the rule of the Gurjara-Pratiharas. North-western India was ruled by the Sahis and in its south-west between Sulaiman and Hazarjat lived the Kafirs. The western boundary of this region lay at a point where the territory conquered by the Muslims and the territory controlled by the Hindus met. This boundary started from Jagdalik, and leaving the valley of Surkh Rud proceeded to Nagarahara. From there passing through the hilly region it proceeded to the confluence of the Ghorband and Panjashir in the east of Kapisa. Above this confluence Parwan was under the control of the Khorasan. The northern boundary of Kafiristan was situated at sufficient distance from the Panjashir and in the south of the river passing its right bank it proceeded to the boundary of Wakhan.

The above political map changed after the second Muslim invasion. Towards the east the Muslim empire extended itself towards the Panjab and Hindustan. In the west it passed through the territories of the Sassanians and Buyids. The Muslims conquered along with Bokhara and Samarakand the Trans-Oxus country. After that they took possession of Balkh along Khorasan, Merv, Herat and Nishapur and joined them with Kabul and Seistan. The Buyids who controlled the southwestern part of Iran, Kirman and Makran controlled the southern route. The Sahis controlled a large territory on the south bank of the Indus. The Sahi empire extending from east to west extended from Laghman to the Beas river and after that came the territory of Kanauj. In the north the Sahi empire extended from the frontier of Kashmir to Multan. The Chinese sources inform us that Swat was also under the control of the Sahis but the mountainous territory in the south-west was independent. In the words of Kalhana, Sahis the great worshippers of Indian independence, were caught between the Turkish bison in the south and by the wild Dard boars in the north, and hence there was no escape left for them.

The Hudūd-e-Ālam supports the view that in the end of the tenth century the Muslims controlled the plateau of Afghanistan. As the route between Kabul to Balkh and Kandhār was clear they did not care for Laghman, Kapiśa and Nagarahāra route; perhaps because of this reason the Pashais had established a small independent state at Nijarao. They disregarded the authority either of the Amīr of Khorasan or the Hindu Śāhīs. The Hudūd-e-Ālam further informs us that the Ghor region in the south-east of Herat was till the end of the tenth century a Hindu state.

We have seen above how after the defeat of Trilochanapala the north-western gate of India had opened for the Muslim conquerors. Mahmud of Ghazni following the Grand Route in 1018 A.D. looted Bulandshahar, Mathura and Kanaui thus opening the gateway of northern India for further conquests. The Yamini Sultanate established itself at Lahore and in the territory of Gangeyadeva. In 1033 A.D. the Muslims penetrated as far as Banaras and looted its markets.2 The Gahadvala rulers of Uttar Pradesh were forced to face the new danger. When the country was being trodden by Muslim invaders then in order to save the Middle Country from them, Chandradeva established the Gahadvala empire. This state had two capitals at Kanauj and Varanasi. There is no doubt that in order to keep themselves away from the Muslim contact Banaras carried on the administration of the state. In the end of the twelfth century Govindachandradeva had to face many Muslim invasions. It is evident from an inscription of Kumaradevi his queen that her husband saved the empire by defeating the Muslim forces. Jayachandradeva ascended the throne in 1170 A.D. In his time Delhi fell and the Ganga-Yamuna gate of the Grand Route came in the Muslim hands for ever. In 1194 A.D. Varanasi fell, after that another chapter opens in the history of India.

II

In section I we have described the political upheavals which took place in early medieval India. In this period we get ample information about the Indian

trade and travellers from the Chinese, Arabic and Indian sources. The Chinese source informs us that during the Gupta and post-Gupta periods trade between India and China was in the hands of the Sassanians. All the merchandise which came from the eastern sea coast of Indo-China, Sri Lanka, India and Africa was known as the merchandise from Persia, because those merchants who brought these goods were mainly Persians.

In the seventh century, however, there was great increase in Chinese shipping. In 601 A.D. a Chinese delegation went to Siam by the sea-route and returned back from there. The Chinese deemed this voyage as a great act of bravery. Whatever may be the case with Chinese shipping during that period, the Chinese had very little knowledge about the Indian sea-routes.

Hiuen-tsiang also did not know about the sea-route from Sri-Lanka to Sumatra, Java, Indo-China and China. But this state of affairs did not last for a long time. By the end of the seventh century the Chinese travellers made use of ships for travelling and they began sailing regularly from Canton to western Java and Palembeng (Sumatra). Usually here the travellers disembarked from the Chinese ship, took another ship to go to Sri Lanka via Nicobar and from there took another ship for Tamralipti. It thus took nearly three months to travel from China to Sri Lanka. In winter when the north-east monsoon wind blew, ships sailed from China to India, but when the south-west monsoon set in during the months of April to October, people sailed from India to China.<sup>5</sup>

The first reference to the trade between China, India and Indo-China is found in the Tang-kuo-shi-pu of Li-wan. The ships plying to and from Canton were so large that the major portion of the hold of the ship could be seen on the surface of the sea and hence to embark on the ship, the help of a huge ladder had to be taken. The foreign immigrants on these ships had to register themselves in the office of the Superintendent of Boats. The ships kept white pigeons to carry messages for thousands of miles. Sailors had a strong belief that if there were no rats on the ship, then calamity was bound to befall them. Hirth is of the opinion that here is the reference to an Iranian ship. Whatever may be the case the Indian sea-faring travellers yet believe in this superstition.

Unfortunately, the Indian literature of this age does not give us much information about the trade between China and India. However there are some stories which throw light on Indian shipping in the Bay of Bengal and the South China Sea. Achārya Haribhadra Sūri (c. 678-728 A.D.) has narrated such stories in his Samarāichchakahā,? It is related in one of the stories that Dhana in order to overcome his poverty was determined to go on a sea voyage. His wife Dhanaśri and one Nanda accompanied him. Dhana acquiring goods for foreign countries (paratīrakam bhānḍam) loaded them in the ship. Dhanaśri in the meanwhile hatched out a plot to kill Dhana and to elope with Nanda. The ship was made ready for the voyage (samyāchita pravahanam) and heavy cargo was loaded. In the early morning Dhana went to the beach, distributed money to the poor, and after

worshipping the sea and the ship, he embarked with his followers. The ship weighed anchor and the sails (sitapata) were filled with wind. The ship then began traversing the sea, the abode of strange aquatic animals jumping over the great waves, and the coconut groves on the coast were swept by the wind.

On the boat Dhanasri began administering poison to Dhana. Fed up with his life he gave all his wealth to Nanda. After some time they reached the island of Mahakataha, and Nanda taking the presents (prabhritam) went ashore to see the king who was very much pleased and provided him place to stay. The cargo was unloaded. Doctors were brought, but Dhana could not be cured; hence Nanda thought of returning back to India with his master. Having decided that he began selling the export goods (bhānḍam) and buying the import goods (pratibhānḍam). The ship was made ready and after Nanda had seen the king, it sailed.

When Dhanaśri saw that Dhana was not going to die she decided to push him down into the sea, and one day she carried out her resolve. After waiting for a little while she raised a hue and cry, but Nanda was very unhappy at this. The boat was stopped and an unsuccessful search was made for Dhana in the morning. But as the search proved abortive the ship weighed anchor, and they all started on the homeward journey.

Dhana was, however, lucky. He got hold of a ship's plank and floated for seven nights into the sea. The sea water cured his disease and he reached the shore alive. Lamenting on his wife's treachery he proceeded on. Travelling forth he found the necklace of the princess of Śrāvastī, who at the time of the shipwreck had entrusted it to her maid-servant. Taking it he met Kāpālika Mahesvaradatta who taught him the Garuḍa Mantra. After this the story has no relation with sea-travel.

The story of Vasubhūti also throws interesting light on the shipping in this period. Coming out of the city of Tamralipti Vasubhuti and Kumara left with the ship owner Samudradatta. They reached Suvarnabhūmi in two months. Disembarking they proceeded to Sripura and there met his boyhood friend Manorathadatta of Svetavikā, who had come there for trade. After welcoming them he asked the reason of their voyage and was informed that the purpose of their visit was to meet Manoratha's maternal uncle, the king of Sri Lanka. Some time elapsed and though ships to Sri Lanka were available, fearing separation from his dear friend, Manorathadatta, he did not inform him about the departure of ships to Sri Lanka practically every day. When pressed about the urgency of his work he made a ship available. The ship was well furnished and decorated. Manorathadatta accompanied Kumara to the beach. Isvaradatta the owner of the ship saluted them and he got them their seats. Thereafter they boarded the ship, offered bali to the ocean, rigged the sails (uchchhritasitapatah) and the pilot put the ship in the right direction towards Sri Lanka. After journeying for thirteen days there was a storm and the ship went out of control. The crew were unhappy at this. Encouraging them Vasubhuti and Kumara acting like expert navigators

cut the riggings and gathered the sails (chhīnnāḥ sitapaṭāḥ nibandhana-rajjavāḥ mukulitāḥ sitapaṭāḥ) and released the anchors (vimuktāḥ nāṅgarāḥ). Even so, due to the heavy load of the cargo, the roughness of the sea and increasing pelting of the hailstorm the ship was wrecked. Kumāra got hold of a plank and after three nights reached the shore. He took a deep breath coming out of the water. Going a little further he sat under a bamboo tree. After some time he felt hungry and proceeding to the north in the search of water and fruits reached a tree near a mountain rivulet. From here the story takes a different turn and we are informed how Kumāra met his lady love Vilāsavatī. After some time they thought of returning to his country. They raised a flag. After few days seeing it sailors from a ship came there in small boats, and meeting the prince told him that the Sārthavāha Sānudeva of Mahākaṭāha on his way to Malayadeśa having seen the flag had sent them to rescue him. Kumāra with his wife went to the ship. After this incident he had to face many other difficulties also, but in the end they reached the Malaya country.

From the story of Dhana in the Samarāichchakahā<sup>9</sup> we get certain information about shipping between India, Dvīpāntara and China. Once the master of caravan by name Dharana thought of amassing fortune and helping other people. Having made up his mind he informed his parents of his resolve and having obtained their permission proceeded with a big caravan to Vaijayantī, a big sea port on the eastern coast. He took with him export goods (paraīīrakam bhānḍam) and made arrangements for a ship. On an auspicious day he went outside the city and reached the sea-shore. There he distributed money to the poor, worshipped the sea and saluting his teacher embarked. Lowering the speed slowing stones (ākrishtāḥ vegahārīnyāḥ śilāḥ), the sails were raised and the ship started towards China.

For some days the ship sailed quietly but after that a terrible cyclone began blowing. The sea becoming very rough the sailors became dejected. To ensure steadiness of the ship the sails were lowered (tatāḥ samayen gamanārambheṇā-pasaritāḥ sitapaṭāḥ), and in the hope to save the ship the stone anchor was lowered, but in spite of all these precautions the ship was wrecked. The sarthavāha, however, was saved, and floating on a plank reached Suvarṇadvīpa and felt deep concern about the fate of his wife and followers. He assuaged his hunger with plantains. At the sun-set he made a bedding of leaves and prepared fire to ward off the cold of the night and after warming himself slept. In the morning he got up and saw that the place where the fire burnt the previous night had turned to gold. He realised that it was a gold mine. He then turned the gold into bricks and stamped them with his name. Thus making one thousand piles of these bricks, each containing ten bricks, he raised the flag of the wrecked ship

In the meanwhile Sarthavaha Suvadana was proceeding from China to Devapura on a ship carrying cargo (sārabhāṇḍam). He saw the flag raised by Dharaṇa. The anchors were cast by the order of Suvadana and some sailors were sent out to meet him. After inquiring from the sailors Dharaṇa came to know

that owing to the vagaries of luck Suvadana's fortunes had suffered a setback. Therefore, the ship did not carry any important cargo. Dharana, after meeting Suvadana, came to know that he was carrying 1000 suvarna worth of goods to Devapura. Dharana asked him to throw away the cargo and load his gold on the ship. He promised to pay him one lakh suvarnas for this. Suvadana threw away the cargo and loaded the ship with the golden bricks after counting them. Then the story tells us that in order to propitiate the goddess of Suvarnadvipa who was angry at his taking away the gold. Dharana threw himself into the sea. From this plight he was rescued by one Hemakundala. Dharana inquired from him the news of Śrīvijaya. Thereafter Hemakundala proceeded with him to Sri Lanka and after purchasing precious stones they reached Devapura. Here he met one Toppa Śresthi and related to him his adventures and difficulties. In the meanwhile Suvadana had the evil intention of misappropriating the gold of Dharana. He went to the shore and was allowed to proceed by the king without paying duties. He reached Devapura and was met by Dharana. While on a journey to China he was again pushed into the sea by Suvadana and was saved by the men of Toppa Śresthi. The case was taken to the king and Dharana won.

If from the above stories we eliminate the fantasy then they throw enough light on the shipping between India and China. The following conclusion can be drawn from the above stories: (1) Tāmralipti and Vaijayantī were big ports on the eastern sea coast of India from where the ships sailed to and from Sri Lanka, Mahākaṭāha (Kedah in western Malaya) and China. Devapura, which will be dealt later on was a great trade centre. In the Śrīpura port of Suvarṇabhūmi Indian merchants carried on trade. Śrīvijaya at that time was a big kingdom. (2) Indian ships had to encounter terrible storms in the Bay of Bengal and in the South China sea which caused ship-wrecks. Sometimes the survivors floating on wooden planks came ashore. There they raised the distress flag, seeing which some ship sent smaller boats for their rescue. (3) Merchants from Suvarṇabhūmi brought bricks of gold with them on which they stamped their own names.

As we have already seen in the beginning of the Christian era there was an increase in the cultural and trade relations between Suvarnabhumi and China. There was great impetus to cultural and trade relation with China in the Gupta period. The Greek and Indian sources tell us that the credit of colonising Suvarnabhumi goes to all the ports of eastern sea coast extending from Tamralipti, but much of the credit goes to south Indian ports as well. The stories of Haribhadra support this view. Indian merchants usually took the sea route to reach Suvarnabhumi. But it is also possible that they took the land routes as well. There was a land route between Indo-China and Malaya. These routes suffered for natural impediments, but as we have seen in the case of the routes between India and China via the Pamirs, the merchants did not much care for these difficulties. It was easier to to face these difficulties than to face the ravages of the sea pirates in the Bay of Bengal. Itsing is of the opinion that in the seventh century the ships proceeding from the Indian ports to the south-east were always in fear of cannibals living in the Andaman islands. In the strait of Malacca, due to the

increase in trade, the inhabitants of Malaya got ample opportunity for piracy, but owing to the strict vigilance of Śrīvijaya on the strait of Malacca, the importance of sea-routes increased. Scholars are of the opinion that in order to avoid circumventing the strait, Indian travellers crossed the Andaman and Nicobar or a point to its south. The sailors of south India after crossing the Bay of Bengal took the sea-route between the Andaman and Nicobar islands or the route between south Nicobar and Sumatra. By the first route they reached Takkola and by the second to Kedah. From Kedah to Singora and from Trang to Patalung it was easy to reach Chumpon via Ligor and Kra situated on the Bay of Bandon. There was also a route from Takkola to Cheya.<sup>10</sup>

In order to reach the Gulf of Siam the travellers from central India and the coastal regions had to take the route starting from Tavoy, crossing the mountains and passing through the pass of Three Pagodas it reached the delta of Menam via the Kawaburi river. The route in the north of the Menam valley connected in the west the port of Moulmein and the village of Raheng, we can suggest yet another route which passing the plateau of Korat and Sitep joined the valley of Menam, Mekong and Mun rivers, and in the north passing from Assam, Upper Burma and Yunnan the route led to India and China. Mr. Quaritch Wales is of the opinion that on the route of the valley of Mun where it crossed the plateau of eastern Siam, there existed a big city on the left bank of the river Pasok which is even now known as Śrideva. The travellers who settled here probably came from the central region of the rivers Krishna and Godavari. Śrideva, situated between the plateau of Siam and the valley of the Menam river was a great commercial and trade centre. This Śrideva could be identified with Devapura of the Samarāichchakahā.

In this period the Pallava rulers also strengthened their influence in Indonesia. Narasimhavarman (c. 630-660 A.D.) sent two huge fleets to help the king of Sri Lanka Manavamma. Mabalipuram and Kanchipuram were two important ports in this period, from where ships sailed to Sri Lanka and Suvarnabhūmi.<sup>12</sup> A Sanskrit inscription of the eighth century from Sri Lanka informs us that the caravan of Indian merchants was skilled in sea-travel and was also expert in buying and selling and careful in loading cargoes.<sup>13</sup> We are unable to affirm whether these traders were of south Indian origin or not but according to Haribhadra, there certainly existed great commercial relation between Sri Lanka and India.

We have shown above how in the seventh century Indian merchants and colonists were spreading their fame in foreign countries. As before on the internal land routes of the country trade was being carried on and merchants had to face the same difficulties as previously. Before starting on a journey, the master of caravan, by the beat of drum announced the safety and comfort with which he could take the travellers and his caravan. When the travellers had assembled, the leader of caravan advised them then there were two ways to reach the destination, the straight one and the other which proceeded in a circuitous manner.

The latter one took more time, but after having crossed the boundary it was easy to reach the destination. The straight road was difficult, though the time consumed was shorter, it was frequented by ferocious animals and the fruits and leaves of the trees were also poisonous. On this road sweet tongued rogues were ever ready to accompany one, but one had to shun their company. In a well organised caravan, the travellers travelled together because if separated there was always the possibility of facing danger. They had to confront the forest fire and also forced to cross difficult mountains. One should not encamp near a bamboo grove as danger lurked there. On the northern route there was always great difficulty in getting food and water. On the road everybody kept a watch in the noon.<sup>14</sup>

From the story of Dharana we also come to know that on their way travellers were in constant fear of robbers and wild beasts. Dharana after some stoppages reached Achalapura in Uttarapatha and met its ruler who honoured him. He sold his goods and made profit eight times as much. He stayed there for four months for buying and selling and made a huge profit. Having bought goods for Makandi he loaded the caravan and started towards his country. After some time he reached a forest which was infested with all kinds of wild beasts. Here the members of the caravan encamped and slept during the night after arranging for the watch. In the midnight the Sabaras and Bhillas attacked blowing horns and the womenfolk with the caravan were frightened. The soldiers accompanying the caravan fought bravely, but the Sabaras proved too strong for them and the soldiers were scattered in all directions. Many merchants were killed, their goods looted and some of them were captured and brought before the Sabara chief. 15

The Kuvalayamālā of Udyotana Sūri written in 779 A.D. gives us many travel stories. In one story it is related that a Brahman by the name Chandasoma because of his utter poverty accompanied a party of acrobats and bards to a village where the people had assembled to witness the show. Chandasoma's wife also went to attend it but, he, suspecting her fidelity, killed her. After realising that he had done a heinous crime he, full of repentance, started lamenting over his deed and decided to immolate himself on the funeral pyre. When he was about to jump into the flames people held him back and took him to the assembly of learned pandits who advised him various formulas to expiate his sin. The majority of the pandits advised him to quit his home, distribute all his belongings among the Brahmans, get clean shaved, visit various places of pilgrimage like Haradwar, Virabhadra, Someśvara, Prabhäsa, Pushkara etc. and after offering oblations to the manes he would be free from all his sins. 16

In another story it is related that a prince named Manabhata killed a Pulinda prince who unknowingly had accepted a place of honour in the court of king Avantivardhana. The father of Manabhata advised him that there were only two ways open for him to expiate his sin viz., either he should surrender himself to the king's officers or flee on a tour to a foreign country.

It was natural that Manabhata agreed to quit the country and travel to a foreign land. He loaded all his goods on conveyance and started on his journey.

On his way through the forest he had to fight with the Pulindas and join the spring festival in a village situated on the bank of the river Narmada. After taking part in many adventures he started in search of a guru who could tell him how to expiate his sin. In the course of his wanderings he reached an orphanage at Mathura. There he found the lepers hailing from all parts of the country talking among themselves about a place of pilgrimage which could cure them of their disease. One of them named Vārāṇasī, while other contradicting him named the Sun temple of Multan and the temple of Mahākāla. A third opinion was that jumping from the banyan tree at Prayāga and thus getting one's legs and hands broken was the highest form of expiation. A fourth still went further and opined that the sin of matricide and patricide could be expiated after bathing at the confluence of Ganga and Yamuna and worshipping Bhairava. Mānabhaṭa decided to adopt the simplest course and thought of visiting Prayāga to wash his sins. 17

The story of Mayaditya and Sthanu also throws some light on some interesting aspects of contemporary shipping. Māyāditya was a shrewd merchant. To get his work done he did not care for high and low. On the contrary Sthanu was a god-fearing and good natured man. Mayaditya proposed that in order to earn money they should proceed to Varanasi and take recourse to gambling, robbery and deceit. When Sthanu censored his proposal, Mayaditya just laughed it off. Afterwards they thought of earning wealth by alchemy, magic, worship of the gods, sea voyage and mining. In the end they thought of going to Dakshinapatha to earn wealth. After crossing many rivers, mountains and forests they reached Pratishthana. There they earned one thousand mohurs. Fearing the dacoits they thought it risky to carry the cash and decided to convert it into precious stones for safety. They divided them into two equal parts and each part was tied in a rag which each of them kept. One day Sthanu went to the market to buy provisions. Māyāditya wanted to steal Sthānu's bundle and replace it with a fake one, but failed to do so. Mayaditya, however, always followed his friend and kept an eye on his jewels. Finding an opportunity he pushed Sthanu into a well. As he was taking the packet of jewels, the Sabaras saw and caught him and threw him into a hole where other robbers and dacoits were imprisoned. Anyway the Sabaras took out Sthanu from the well and entrusted him with all the jewels. Sthanu in spite of Mayaditya's perfidy went in search of his friend in order to give him back his share. Mayaditya was moved by his friend's gesture and felt ashamed of his deed. He went to the village elders to ask them the means for expiating his sins. One suggested that he should burn himself alive to expiate his sin. Another suggested a bath in the Ganga and fast unto death as a solution for expiating his sin.18

A third story tells about Lobhadeva a merchant of Taxila. Once he proposed to his father that to earn more money, he wanted to proceed to Dakshina-

patha. His father, however, told him that they had enough wealth to last for generations. He advised his son to distribute alms to the poor, construct temples, lakes, stepped wells and dispensaries. Lobhadeva, however, did not heed this advice. When the caravan was ready to start his father advised him how to avoid the company of the wicked during his travel. After some days the caravan reached Sopara. Lobhadeva went there to meet an important and respectable merchant of the city. He sold horses to him and made enormous profit. In the meanwhile he received an invitation from merchants carrying foreign trade to attend their conference (desiya-vānik melīya). The invitation was extended to those traders who had come from foreign lands and also to those who went to other lands for trade. They assembled at one place and pan, flowers and perfumes were presented to them. Accompanied by his friend the banker Lobhadeva also went to attend the assembly. Now the merchants began talking among themselves. One of them addressed the assembly, "Those merchants who had visited different islands and whatever goods they had bought, sold or brought back, they should give their accounts." A second merchant observed, "I went to sell horses in Kosala. In exchange the king of Kosala gave me as many young elephants, and in this transaction by your grace I made a great profit." A third said, "I took betel-nut to Uttarapatha and from there bought horses and returned with enormous gain." A fourth said, "I took pearls to the east and from their sale proceeds I purchased chauris." A fifth said, "I went to Dyaraka and purchased chankshells there." A sixth said, "I took cloth with me to the Berber sea coast and there bought pearls and ivory," A seventh said, "I took flowers to Suvarnadvipa and in exchange brought back gold." The eighth said, "I took the horns of buffaloes to China and Sumatra and earned great profit by buying Gangavadi and Netrapatta cloths." The ninth merchant who thought himself no less than the others said, "In the women's kingdom (strīrājya) I took men and brought back gold worth their weight." The tenth merchant said, "I took margosa leaves to Suvarnadvipa and returned back with precious stones."

Lobhadeva, hearing about the exchange of margosa leaves for precious stones, was very much impressed but was informed by his friend that such trade was full of risks. The gains of Ratnadvipa trade, however, captivated the mind of Lobhadeva, who overcome with greed decided to undertake a voyage with his friend Bhadra, who though he had vowed not to undertake any sea-voyage, was persuaded by Lobhadeva to agree to his proposal. After performing religious rites and consulting astrologers the cargo was loaded on the ship. The sails were put in order, the masts were hoisted, and provisions, water and wine were loaded on the ship. After reaching Sri Lanka the merchants took presents to the king, paid the taxes, sold their goods and thought of returning back after buying the goods of the place. On their return journey when the ship reached the mid-ocean, that avaricious Lobhadeva, in order to misappropriate the profit, pushed his friend into the sea and after his return to India spread the news about his supposed death. As a fit retribution Lobhadeva's ship was caught in a storm. The merchants began offering prayers to Narayana, promised to offer sacrifice to Chandl and visit the Saivite places of pilgrimage. For safety they also offered prayers to Matris, Kali, Vinayaka, Sankara, Yakshas, Pretas etc.19

The voyage of Lobhadeva as described in the Kuvalayamālā throws important light on the contemporary trade practices in both internal and external trade. The horse trade was common and the horses from Uttarāpatha were supposed to be of very good quality. Betel-nut was exported from the south to Uttarāpatha and from eastern India came chaurīs. In Dvārakā there was trade in conchshell. India exported cloth to East Africa and imported ivory and pearls from there. Buffalo horns were exported to China and Sumatra and silken cloths were imported from there. We do not know what truth there is in the export of margosa leaves and palāša flowers to Suvarņadvipa.

It seems that the Indian and foreign merchants discussed among themselves matters regarding trade. There must have been a sort of trade guild which also existed during the Chola period. A damaged Tamil inscription found from Loboye Toyba in Sumatra throws light on the sea trade. From a stone inscription from Mysore we come to know that merchants of foreign trade carried on trade with Chera, Chola, Pāṇḍya, Malaya, Magadha, Kosala, Saurāshṭra, Nepal and other countries. The merchandise consisted of horses, elephants, precious stones, spices, aromatic herbs and medicines. Some of these merchants were so powerful that they could bestow special powers to the villages of their own choice. 30

In the travel account of Kuvalayachanda to Vijayapura, the description of a college (matha) is a new trend in Indian travel literature. Travelling through mountains, rivers and forests and meeting peoples speaking different languages, Kuvalayachanda reached Vijayapura. At the very first sight he noticed a college. Hoping to get some information about Kuvalayamālā from its students he entered the college. There he met students from Lāṭa, Karnāṭaka Mālava, Kānyakubja, Godāvarī, Mahārashṭra, Saurāshṭra, Dacca, Srikaṇṭha, and Sindh. They were busy in practising archery, wielding weapons and doing gymnastics. Many students were studying painting, music, dancing, grammar, Buddhism, Sāmkhya, Vaišeshika, Mimāmsā, Nyāya and Lokāyata philosophy. It seems that the instruction imparted by the college covered a wide horizon, the result was that subjects like Nimitta-Śāstra, Mantra, Yoga, interpretation of dreams, chemistry, etymology, prosody, cutting patterns, magic, ivory carving (dantakarma), art of goldsmith, alchemy, exorcism etc. were taught.

In this college Kuvalayachanda saw students studying the Vedas. Some naughty fat lads were busy looking at women. Students were talking among themselves in their own languages on frivolous topics. At first their conversation was confined to food, then they began talking about the king and his family. It was their firm belief that Kuvalayamala was a man-hater. On hearing this one student observed that if she cared for a learned person, he was there. To show off his knowledge he started reading some senseless verses.<sup>21</sup>

### Ш

In the first section we have thrown some light on shipping in the seventh and eighth centuries. We have also seen how in the middle of the seventh century the

Muslims were increasing their influence. By the end of the seventh century the Arabs got control of the shipping in the Persian Gulf. In the middle of the same century they waged war against Broach and Thana possibly because they wanted to control their trade. By the ninth century the Arabs had become so powerful that they were able to control fully the shipping extending from the Red Sea to south China. In the twelfth century the Chinese considered the Arabs as the only foreign shippers. In this period, in order to get information on Indian shipping we have to depend largely on Arab geographies because slowly, as the Arabs got control of the sea trade, Indian shipping began to decline, though, even then, Indian ships sailed to Dvipāntara.

Arabia is surrounded on three sides—that is on the east by the Persian Gulf, in the south by the Indian Ocean and in the west by the Red Sea. Therefore, in the first two centuries of the Hijra era it was called as Jazīrāt al-Arab. Arabia is a desert country and, therefore, its people, in order to earn their livelihood, had to take recourse to trade. As we have seen in the earlier chapters from very ancient times India and Arabia had close trade relations. The work of transporting Indian goods beyond the Red Sea was done by the Arabs. Though in the early centuries of the Christian era the Romans had also a hand in this trade. After the introduction of Islam in Arabia the people of that country improved their navigation beyond expectation. As their relation with India grew the Arabs adopted many nautical terms from India. The Arabic bār (coast) is a form of Sanskrit vāra, donīz is a corrupt form of dongī, bārzad indicates flotilla, hūrī (a small boat) could be derived from hoḍī and bānāyi is the form of Sanskrit vaṇika.

Like Indians the Arabs were also very successful navigators. They knew by signs that the cyclone was in the offing and they tried their best to save themselves from it. They had full knowledge of the sea winds. Abu Hantfah Dainuri (died Hijra 282) wrote a work on nautical science named as Kitāb-ul Anwa in which he has mentioned twelve kinds of winds as follows; (1) zanūb (southerly), (2) shumāl zarbia (northerly), (3) taimanadājan (mixed southerly), (4) kabūl-dabūl (westerly), (5) nakwa (north-easterly), (6) Ajīb (dark wind), (7) bādkhush (favourable wind), (8) Harjaf (partly northerly) and mārūf.<sup>22</sup>

We want to draw the attention of scholars to the Āvaŝyakachūrņi which mentions sixteen kinds of winds. Abū Hanīfah's list includes most of the Āvaŝyakachūrņi's list. Perhaps the Sanskrit garjabha here is transformed into harjaf and kālikāvāta into ajīb. It is natural to enquire about the source of the list of Abū Hanīfah. It will not be surprising if it was adopted from Indian literature.

Like Indian ships the Arabian ships also sailed day and night. During the day the Arab navigators piloted their ships depending on direction of mountains, sea-charts and sea-coasts, but during the night they piloted their ships on the movement of the stars.

During the reign of Caliph Usman, Hakam, the ruler of Bahrain, attacked

Thana and Broach with his fleet. During the reign of Abdul Maliq, Hajjāj bin Yūsuf was appointed Governor of the eastern part of the state which extended from Iraq to Turkistan and Sindh. During his governorship the Arab ships sailed upto Sri Lanka. At one time the Arab ships were being looted by pirates. Angered at this Hajjāj sent his forces by land and sea routes and conquered Sindh. Before Hajjāj the ships sailing in the Persian Gulf and the Indus were made of timber sewn with cord, but the ships sailing to the Mediterranean were made of planks joined together with nails. Hajjāj ordered such ships to be made and used tar for caulking them. He also made flat boats in the place of raked boats. After the death of his uncle Al-Hajjāj, Muhammad bin Qāsim made peace with the people of Saurāshṭra²² who were fighting with sea pirates in the north of Dwarka, in Bet. The Arab fleet played an important part in the conquest of Sindh. In 107 Hijri when Zunayd bin Abdul Rehmān Almurrī was appointed the Governor of Sindh then, he, fighting a sea battle with Rājā Jayasī, occupied Mandala and Broach.

The Arab incursions on the western sea coast of India were in name only, but very soon they made a final attack which ended in the fall of Valabhi. Alberuni mentions that between 750-770 A.D. a traitor bribing the Arabs made them send their ships from Mansura to Valabhi. This tradition is also supported by Arab historians. In 159 Hijri Arabs under the command of Abdul Mulq attacked Gujarat by the sea route. In Hijri 160, the Arabs reached Barbūd (Ibn'Asīr). It seems that this Barbūd is the corrupt form of Valabhi.

From the above accounts it is clear that the Arabs after attacking Sindh and Saurashtra cleared their sea routes of any obstruction. With this they also proved that their new fleets were much stronger than the fleets commanded by the Indians, but during the eighth and ninth centuries this Arab influence was confined to Sindh, Gujarat and the Konkan sea coasts only. The eastern sea coast of India was safe from their attacks. From here the Indian caravan leaders sailed their ships to the Eastern Archipelago and as far as China.

According to the Arab geographers there were seven oceans between Arabia and China. According to Masūdi<sup>26</sup> the Persian Gulf extended from Obulla to Abadan. It was regarded almost triangular in shape and on its tip was situated Obulla and on its eastern arm was situated the coastal region of Persia; after that followed the coastal region of Hurmuz. After that began the sea coast of Makran. The coastal region of Sindh reached upto the mouth of the Indus from where started the coastal region of Broach.

According to Yāqūbī<sup>27</sup> the sea of Lāṭa started from Al-Zumzuma. This sea included the coast of East Africa as well. It was difficult to pilot the ships in this sea without the help of the stars. According to Masūdī, after leaving the Persian Gulf, came the sea of Lāṭa. However, it was so extensive that the ships could cross it only in two months, but in favourable wind the voyage could be completed in one month. On the sea coast of Gujarat lay Saymūr (Chaul), Subāra (Sopara), Thana, Sindān (Daman) and Cambay.

The third sea was known as Harkind which was perhaps named after Harakeli which is identified with the Bay of Bengal. Between the coastal region of Gujarat and Harkind lay Maldives and Laccadives (now Lakshadvīpa) which separated these two seas. These islands produced amber in great quantity but their chief product was coconut.<sup>23</sup> After that appeared Serindib (Sri Lanka) which was the source of pearls and precious stones. From here ships sailed to the Eastern Archipelago. After Sri Lanka appeared Ramani (Sumatra) surrounded by Harkind and Salahat (Strait of Malacca).<sup>29</sup>

Langbalus (Nicobar) was inhabited by nude savages. When the ships passed the islands of Nicobar then the inhabitants reached the ships on small boats and exchanged iron with amber and coconuts. The Nicobar islands were separated by the sea of Andamans. Two islands of this group were inhabited by cannibals who killed those who came there. Often, not finding favourable wind, the ships had cast anchor there and when the sweet water was exhausted the sailors had to go to the shore.<sup>30</sup>

After Harkind, Masudi places Kaläh, Simf (Champa) and the sea of China. In this way the seven seas are counted.

Sulayman mentions at another place that ships proceeding to China were loaded and unloaded at Straf. The port received its cargo from Basrah and Omman for China. As the water was shallow the smaller ships could load the bigger ships there easily. The sea route between Basrah and Straf was about three hundred twenty nautical miles. After loading the cargo at Straf and filling with fresh water the ships sailed to Muscat which was situated on the end of Omman. The sea route between Straf and Muscat was 540 nautical miles. From Muscat ships sailed for the coastal region of western India and Malaya. The sea voyage between Muscat and Quilon took a month.

After filling their ships with sweet water at Quilon they sailed to the Bay of Bengal by the way of Langbalus. From here the ships reached Kalāhbār and took fresh water there. From there they sailed to Tiyūma which was situated at six days voyage from Kalāhbār. From there passing Kundrung they reached the Bay of Champa (Annam and Cochin China), now Vietnam. From there Sundūrfūlat (perhaps the island of Hainan) was situated at ten days voyage. After that came the south China sea. In the eastern part of the China sea lay the island of Mallahan between Sri Lanka and Kalāhbār which people regarded as part of India.<sup>32</sup>

Ibn Khurdādbeh (3rd cent. Hijri) gives a fuller account of this route. According to him the ships passing Basrah, the islands of Khārak, Lāwān and Eiron, Khain, Kaish, Ibr Kāwan, and Hurmuz reached Sārah which at that time served as the boundary line between Persia and Sindh. From Sārah ships sailed to Debal, mouth of the Sindh and Autagin. From there began the frontier of India. Beyond Autagin lay Colae, Sandān, Mali and Balīn. After this the route separated. The coastal ships proceeded to Pāpatan and from there passing Sanjalī-Kabarkān,

the mouth of the Godavari and Kılkan proceeded to China. From Balın other ships sailed to Sri Lanka and from there to Java. From Balın some ships sailed directly to China.

The route which Sulayman took to China is not difficult to understand. From Siraf his ship reached Muscat and from there to Quilon. From Quilon the route to the Palk Strait passed through the Bay of Bengal and it cast anchor for a day in one of the islands of the Nicobar group. From there it proceeded to Kalahbar (the port of Kra in the north of Malay peninsula). From there it proceeded to the island of Tiyūma (Tiyūma island in the south east of Malaya). From Tiyūma it proceeded to Kundrung (situated at the mouth of the river Saigon in the Bay of Saint Jacque). From Kundrung it proceeded to Champa (the capital of the state at that time), from Champa it proceeded to Sundūrfūlāt (perhaps the Island of Hainan) and in the end passing the bay of Portes de la China, it reached Khanfu or Canton. This voyage took five months from Sīrāf to Canton.

Alberuni gives us some information about the ports on the eastern and western sea coasts of India. According to him the Indian sea coast started from Tij, the capital of Makran, and turned south east to Debal. From Debal it proceeded to Loharani (Karachi), Kutch, Somnath, Cambay, Broach, Sandan (Daman), Sopara and Thana. On this coast the Bawarij sea pirates of Kutch and Somnath created great trouble for ships. After Thana passing Zimur, Ballam and Kanji ships reached Sri Lanka and from there they sailed to Rameshwar on the eastern sea coast (Cholamandala). 34

According to Sulayman the Chinese goods reached Basrah and Baghdad in very small quantities. The reason for this was frequent fires in Kanfu or Canton which severely damaged the export goods. Another reason was frequent ship-wrecks which greatly impeded the transport of the goods. Sea pirates as well played great havoc with the goods. In many ports between Arabia and China the ships had to wait for a considerable time and this forced the merchants to sell their goods at cheaper rates. Frequently unfavourable winds put off the ships from their regular route and drove them to Yemen and other countries where the merchants disposed of their goods. Another reason for the decrease in trade between Arabia and China was that the merchants had to stay in one place for considerable time for the repairs of their ships or owing to some accident. Whatever might have been the case, it is evident that in the ninth century the Arabs traded with India, Malaya and Sri Lanka considerably; their trade with China was of very limited nature.

The external trade of China received great setback owing to a tragic event in the time of the Tang emperor Hi-Kutsung (874-889 A.D.). In this period the army revolted and looted several towns, with the result that merchants were bound to flee to Kalāh on the western coast of Malaya, and this port became the centre of Arab trade in the beginning of the tenth century. However, by the end of that century Canton and Tsuan-chu regained their importance as centres of the external

trade of China and the country re-established its contacts with Arabia, Java, Malaya, Tonkin, Siam, western Sumatra and Borneo. 16 However, we do not know what happened to trade relations beween India and China in this period, though it is possible that along with the Arabs, Indians had to confine their trade to Malay peninsula, Siam, Sumatra and Java for some time.

Indian trade had great importance to the Arabs. When Caliph Umar enquired from a merchant about India pat came the reply, "Its rivers are pearls, mountains are rubies and trees are perfumes". The chief port between Arabia and India at that time was Obulla. This port was so closely related with India that the Arabs regarded it as a part of this country. After the destruction of Obulla in 256 A.H. Basrah became the centre of Indian trade. After the occupation of Sindh by the Arabs this trade developed further and the customs duties accruing from it became the main source of revenue of the Caliphs. Straf was destroyed in 336 A.H. There was an island named Kais near Omman. Yaqub is of the opinion that Indian rulers respected the ruler of this island because he was the owner of many ships. According to Kazwini (Hijra 686) Kais was a big market for Indian goods and the chief centre of shipping. India exported costly goods to that place. 37 Abu Zayd Sairafi (9th century A.D.) giving the reason why ships did not sail to Egypt through the Red Sea and why they returned from Jeddah to India says that the reason was that the seas of China and India produced pearls. In the mountains and forests of India were found mines of precious stones and gold. Its animals produced ivory and the produce of the country included ebony, cane, camphor, cloves, nutmeg, bakkam, sandalwood and many other kinds of aromatic goods. Its birds included parrots and peacocks and the excretion of that land was musk.38

Ibn Khurdadbeh includes in his list the following articles. He mentions aromatic woods, sandalwood, camphor, cloves, nutmeg, cubeb, coconuts, hemp, cloth, ivory, all kinds of precious stones from Sri Lanka such as ruby, pearls, beryl, corundum, black pepper from Malabar, glass from Gujarat, bakkam from the Deccan and the cane from Sindh.

The Hudud-e-Alam (982-983 A.D.) informs us that in the tenth century Arabia imported gold from Assam, chankshell and ivory from Orissa, pepper from Malabar, shoes from Cambay, material for turbans from Raiwind and precious stones, muslin, turbans and herbs from Kanauj and musk from Nepal. Masudt and Bokhart also praise the shoes from Cambay. Thana was known for its muslin which was either manufactured there or came from different parts of the country. 40

Musair bin Muhalhil mentions that the gazair porcelain from India was sold in Arabia like Chinese porcelain. Indian merchants carried to Arabia teak-wood, cane, raywand gum, sugar, malabathrum, camphor and frankincense. According to Ibn-ul-Fakth, Arabia imported from India and Sindh aromatic woods, rubies, diamonds, agallochum, amber, cloves, sambul, kulanian, cinnamon, coconuts, myrobalan, acetate of copper, bakkam, cane, sandalwood, teak wood and black

pepper.41 The Arabs exported the rhinoceros horn from India to China. There, very costly caskets were made out of the horn. India also exported arecanuts to Arabia.42 Sulayman, writing about the famous muslin of India, remarks, "The finest muslins woven there are so thin that the whole roll could be passed through a ring. Muslin is a cotton textile and I have myself seen it." It seems that in this age printed calicos from India was exported to Egypt. Many examples of such printed calicos have been found from Fostat in Egypt.42

In the tenth century there was a great demand for gold coins of Sindh in the rest of India. Emerald links arranged in beautiful boxes were imported and there was a great demand for coral. The country imported also some quantity of Egyptian wine, silken goods, furs, leather and swords from Turkey. There was some demand for rose-water from Persia. Debal imported the date from Basrah. There was a demand for horses in Cholamandala.44

The Arabic or Chinese literature do not mention about the Indian shipping in this period. The reason for this may be that perhaps the Arabs and Chinese regarded the shipping of Java and Sumatra as that of India as they regarded Sumatra and Java as a part of India. Whatever may be the case, in the geographical literature of the Arabs there are many references to Indian merchants coming to the Persian Gulf. In the ninth century A.D. Abu Zayd Sairaft in connection with the Indians of not inter-dining observes, "These Hindu merchants come to Sīrāf, but if they are invited by an Arab at a dinner then their number exceeds hundred but it is incumbent on them that each should be served in a different plate and nobody was allowed to share his plate." Here we would like to point out the Indian custom which did not allow them to take their food together as the Arabs did. Buzurg Shharyar has mentioned several times in his Ajāib-ul-hind Indian travellers as baniyana.45

## · IV

Chau-ju-kua gives interesting details about the trade relations of India with China. It is evident from this source that even after the tenth century the Arabs and Indians had their hand in the Chinese trade.

Chu-ku-fei writing in 1178 A.D. observes that no country surpassed in great stores of valuable goods than the Arabs (Ta-shi). Next to them came Java (Sho-po); and the third was Palembeng (San-fo-tsi) and then followed others. It seems that Chu-ku-fei included among the merchants of Java and Palembeng Indians also,46

It is mentioned in the Ping-chou-ko-tan (1122 A.D.) that the ships called Kia-tu visited the Chinese waters. In a note Hirth says that this ship was evidently katur which plies on the Malabar coast. These vessels were 60 to 65 feet in length and raked at both ends.47

The Ping-chou-ko-tan also mentions large ships from Kia-ling (Kling) that carried several hundred men and a smaller one a hundred and more men. These merchants selected an important trader as their headman and he in his turn selected his own assistant. The headman managed the affairs of other merchants. He had the authority of the Superintendent of Merchant Shipping at Canton to use light bamboo sticks for punishing his offending followers. One of the duties of the headman was to make inventory of the goods of the merchant who happened to die, 18

The traders were convinced that they should undertake a sea voyage only when the ship was large enough carrying many passengers so that they could face a large number of pirates who plundered those who were bound to their (pirates) country. There was also insatiable demand for presents by the officers and rulers of the countries they visited and for that purpose large quantities of presents had to be carried. This could be done only by larger ships.

The traders divided their space on board the ship by casting lots among themselves and then locked their goods in their allotted places. Thus each man got several feet of storing space in which he piled up his goods and as well slept on that pile during the night. The greater part of the cargo consisted of the pottery.

The sailors were not so much afraid of cyclones and high waves as of running aground. If this happened they could not float the ship. If the ship ran a leak it had to be plugged from outside and for that purpose foreign slaves were employed.

The master of the ship knew the configuration of the coast. During the night he piloted his ship with the help of the stars and during the day by the movement of the sun. When the sun was obscured (set) then he looked at the south pointing needle (compass) or fished out a sample of mud from the sea bed with a line and hook and then smelling it, could determine the position of the ship.

The above paragraph apparently refers to the use of the compass by the sailors in the twelfth century. Beazley 49 notes that the Chinese sailors used the compass in their voyages to the Persian Gulf in the 3rd century A.D., but quotes no authority to support his statement. Reinaud 40 after examining the Arab references to the polarity of the needle came to the conclusion that at the end of the twelfth and beginning of the thirteenth century the use of the magnetic needle was in vogue both in the east and the west. But here we would like to point out the attention of scholars to the mention of the Yantra in the Milindapraina which tells us that the ships sailing between India and China were provided with it and it was safeguarded by the captain who did not allow anybody to touch it. The Milindapraina does not mention how it was used but there is a possibility that it might have been the compass. Whatever may be the case, it is certain that in

the twelfth century it was in general use. In Indian literature I have not found any other reference to the compass.

Chao-ju-kua compiled his account of the Arab and Chinese trade between the twelfth and thirteenth centuries. We come to know from his sources that there was close trade relation between the Chinese, Arabs and Indians in the Indian Ocean. Tongkin carried on trade in agallochum, gold, silver, iron, cinnabar, cowries, rhinoceros horns, shells, salt, lacquer, cotton and kapok.51 In Annam, on the arrival of a trading ship, officials were sent on the board with a leather book, which entered the list of the cargo in white letters. After the search the cargo was allowed to be landed and with the exception of one tenth claimed by the government. If the goods were omitted from the manifest they were confiscated.52 In Annam, foreign merchants traded in camphor, musk, sandalwood, lacquer ware, porcelain, lead, tin, samshu and sugar. Cambodia traded in ivory, chan and su, varieties of agallochum, yellow wax, kingfisher's feathers, dammar resin, foreign oil, ginger, teak wood, raw silk and cotton fabrics. In exchange the foreign traders offered silver, gold, porcelain ware, satinets, leather covered dums, samshu, sugar, preserves and vinegar. 13 The Malay Peninsula traded in cardamom, the tsien, chan and su, varieties of gharu wood (agallochum), yellow wax and red kino gum.51 In Palembeng (east Sumatra) the products were tortoise-shell, camphor, agallochum, laka wood, cloves, sandalwood and cardamoms. It imported pearls, frankincense, rose-water, gardenia flowers, myrrh, aloes, asafoetida, costus, ivory, coral, liquid storax, cat's eye, amber, foreign cotton stuffs and sword blades. The foreign traders gave in exchange gold, silver, porcelain ware, silk brocades, skeins of silk, silk gauges, sugar, iron, samshu, rice, dried galangal, rhubarb and camphor.55

Sumatra controlled the strait through which the foreign ships proceeded to China. In ancient days the rulers of Śrīvijaya, in order to keep control on the sea-pirates, put up an iron chain as a barrier across the strait. It could be raised up or lowered down by a mechanical device. If a merchant ship arrived it was lowered. In the twelfth century as there was peace, there was no use of the chain which was coiled and put ashore. No merchant ship, however, was allowed to pass without entering the strait of Malacca, 56

The Kwantan province of Malaya exported yellow wax, laka wood, agallochum, incense, ebony, camphor, ivorya nd rhinoceros horns. The foreign traders gave in exchange silk, parasols, kittysols, silks of Ho-chi (a district in Shen-si), samshu, rice, salt, sugar, porcelain basins, bowls of gold, silver etc. 57

Lengkasuka (near Kedah peak) was a prosperous country. The native products were ivory, rhinoceros horns, and different kinds of agallochum. Foreign traders bartered its products with samshu, rice, Ho-chi silks and porcelain ware. They first calculated the value of these articles in gold or silver and then bartered according to fixed rates.

In Bernang (Malaya) the native products were agallochum, laka wood, sandalwood and ivory which were bartered with gold, silver, porcelain ware, iron, lacquer ware, samshu, rice, sugar, and wheat.<sup>58</sup>

The native products of Borneo were camphor of four varieties, yellow wax, laka wood and tortoise shells. They bartered with silver, gold, imitation silk brocades, variegated silk, patolas, glass beads, glass bottles, tin, amulets of ivory, lacquer plates and bowls and green porcelain.

Java traded in sugarcane, taro, ivory, rhinoceros horns, pearls, camphor, tortoise shells, sandalwood, aniseed, cloves, cardamoms, cubeb, laka wood, mats, foreign sword blades, pepper, betel nuts, saffron, sapan wood and parrots. Foreign merchants exchanged them for gold and silver, silk stuffs, black damasks, orris root, cinnabar, copper, alum, borax, arsenic, lacquer ware, iron tripods, and blue and white porcelain.60

As in the past even in the twelfth century Sri Lanka was famous for precious stones, cat's eye, red transparent glass, camphor, blue and red precious stones, cardamoms, mu-lan bark and coarse and fine perfumes. The merchants exchanged these with sandalwood, cloves, camphor, gold, silver, porcelain ware, horses and silk stuffs.<sup>61</sup>

The sea-coast of Malabar was a great trade centre. Pearls and foreign cotton stuffs of all colours were available there. Its products were taken to Kia-lo or Kwala Terong on the Perak coast and Palembeng and exchanged with Ho-chi silks, porcelain-ware, camphor, rhubarb, cloves, lump camphor, sandalwood, cardamom and gharu wood (agallochum). Gujarat exported indigo, red kino, myrobalan and chintzes to the Arab countries. Malwa sent to Gujarat cotton cloth loaded on two thousand bullocks to be exported. Cholamandala exported pearls, ivory, coral, transparent glass, cardamoms, opaque glass, cotton stuff with coloured silk borders and simple cotton stuffs.

V

In Indian literature between the eighth and twelfth century A.D. mention is made frequently to the sea trade with the Eastern Archipelago. Unlike the Arabs, Indians lacked geographical knowledge and, therefore, they have not mentioned the ports and the trade carried by them in this country; but there is hardly any doubt that even in this age Indian traders carried on their business on land and sea routes. Kshemendra in his Avadāna Kalpalatā<sup>85</sup> mentions in the Badaradvīpa Avadāna how courageous travellers crossed high mountains in a play way, went across deep ocean as if it was a small tank and passed a thick forest as if it were a garden.

Dvipantara is also mentioned in the story of Saktideva in the Kathāsaritsāgara and the Išāna-Gurudeva-Paddhati informs us that from dronamukhas or the ports situated at the mouth of the rivers, ships sailed to the Eastern Archipelago. 66 The

Bhavisayattakahā<sup>67</sup> gives a realistic description of ships sailing to the Eastern Archipelago. The poets say that Indian merchants sailing their ships in difficult oceans traversed the lands in the Eastern Archipelago and saw all kinds of curious things there.

As we have observed above, in this period as well the Bay of Bengal and the Indian Ocean were infested with pirates. Kshemendra in his Bodhisattvāvadānakalpalatā observes how some merchants complained to Aśoka that pirates had looted their ships and if their activities were not stopped they even threatened to give up their business and take up some other profession. The Nāgas mentioned in this connection were perhaps the inhabitants of the Andamans and Nicobar islands. Their predatory habits have been mentioned by the Arab travellers of the ninth century.

The contemporary literature gives very little account about the export and import business of India, though we get some account of the textile manufacture and trade in precious stones in that period. The Manasollasa informs us that Poddālapura (Paithan), Chirapalli (Trīchanapalli), Nāgapattana (Nāgapattinam), Cholamandala, Allikākula (Chicakole), Simhala (Sri Lanka), Anahilavāda (Anahilapattan), Mülasthana (Multan), Tondidesa (Tondimandala), Panchapattana (perhaps Panchamahal in Gujarat), Maha China (China), Kalingadeśa (Orissa) and Bengal were the chief centres of textile business.49 In this period several texts on precious stones were compiled. They throw light on the markets and sources of precious stones in this country. The following precious stones have been enumerated namely-diamond, pearl, ruby, sapphire and emerald. In semi-precious stones are counted amethyst, topaz, cat's eye and coral. Buddhabhatta also includes in this list onyx, chrysoberyl (karaketana), bhīshma (?), garnet. (pulaka) and carnelian (rudhirāksha). Six more semi-precious stones are counted namely vimalaka, rājamani, chankshell, brahmamani, jasper (jyotirasa) and sasyaka.70 The turquoise and lapislazuli have also been counted as semi-precious stones. Jewellers tested precious stones taking into account the mine, the size, the colours, the classes and merits and demerits.71

The texts give the origin of diamond as Saurashtra, the Himalayas, Mātanga (the Golconda mine), Pauṇḍra (northern Bengal), Kosala, Vaiṇyātaṭa and Sopara. However, most of the places mentioned in the list do not possess diamond mines. Perhaps they are included in the list because these places dealt in diamonds or they exported diamonds. Kalinga or Orissa produced diamonds, though in a very limited quantity. By Kosala here Dakshiṇa Kosala is meant and perhaps it indicates the diamond mines of Panna. By Vaiṇyātaṭa is meant the Venaganga in Maharashtra and the diamond mines in Bairagarh. 72

According to Varāhamihira, pearls were fished in Sri Lanka, Paraloka, Saurāshṭra, the Bay of Cambay, Tāmraparņī (the gulf of Manar), Pārasavāsa (the Persian Gulf), Kauvervāṭa (Kāverīpaṭṭīnam) and Pāṇḍyavāṭa (Madurai). The Agastimata includes in the list Āravaṭī which has not been identified and Barbara

or the Red Sea. It seems that artificial pearls were also made in Sri Lanka at that time. 72

The best ruby was obtained near the Ravanaganga river in Sri Lanka. Some ordinary kind of ruby was found in Kalapura in Burma, Andhra Pradesh and Tumbara. Artificial ruby was also made in Sri Lanka and dishonest businessmen sometimes sold them as real ones.74

Sapphire was found near the Ravanaganga in Sri Lanka. The sapphire of ordinary quality was also obtained from Burma and Orissa as well. 25

According to the texts on precious stones emerald was found on the coastal region of Barbara deśa which had deserts and also Magadha. The first mine no doubt refers to the Gabel-Jebarah situated in the deserts of Nubia on the Red Sea. The mine of Magadha perhaps indicates some abandoned emerald mine near Hazaribagh.<sup>74</sup>

The sources of semi-precious stones are not mentioned but the turquoise came from Palestine and Persia, lapis lazuli from Persia, coral from Alexandria and carnelian from the Ratanpur mines of Cambay.<sup>77</sup>

The kermes which was known later on as kiramdānā was imported from Persia for colour but it seems that the Persian traders invented many false stories about its origin to Indian merchants. One such false story is related in the Brihadkathākoša of Harisheņa. The story says that a Persian bought a girl and fed her well for six months. Later on he extracted her blood by means of leeches. From the germs produced by this blood was obtained carmine. It was used for dyeing woollen cloths. Āšādhara commenting on 567th Gāthā of the Bhagavatī Ārādhanā also observes that in Charmaranga Vishaya (Samarkand) the Mlechchhas got human blood through leeches, gathered it in a pot and the germs produced were used for dyeing blankets. Jāhiz, an author of the Abbasid period, mentions that kermes came from Spain, Tarim and Iran. Tarim was a small city situated on the east of Shiraz. This place was situated a little way off from Armenia which produced kermes.

### VI

So far we have tried to give an account of the activities of the Arab and Indian sea merchants. In this section we will try to show the attitude of Indian travellers on the land routes. The contemporary Sanskrit literature informs us that travel on the land routes in this period was performed in the same manner as in the previous ages. The land routes were infested with thieves and robbers in the same way as previously and the travellers had to undergo many hardships, but in spite of all this people never stopped travelling for trade and other purposes. This period, however, was noted for its pilgrimages and a large number of Hindus bearing all hardships visited the arthas. Many Brahmans also travelled in diffe-

rent parts of the country to gain their livelihood. Dāmodara Gupta, in his Kuttanimatam says that those travellers who do not study the costumes, the habits and speeches of the people at large are like hornless bulls. The Subhāshitaratnabhānḍā-gāra<sup>82</sup> also remarks that those who do not travel in other parts of the country and do not honour the learned, their narrow intelligence is like a drop of ghee in the water which stays at one place. On the contrary those who travel and honour the learned, their expansive intelligence is like a drop of oil in the water which spreads all over the surface.

Eulogising the travel the Subhāshitaratnabhāndagāra observes that by travel one is able to visit the 13rthas, is able to meet people at large, gains money, acquaints himself with curious things, sharpens his intelligence which improves his power of dialogue. On the contrary the poor fellow who stays at home is insulted by his wife, the ruler does not care for him. Like a turtle in the well the stay-athome is unable to gain acquaintance with the outside world.

As we have observed above that if a man refused to travel, his wife did not care for him, but when he was ready to undertake a journey then the same wife considering the difficulties of travel trembled and tried to dissuade her husband not to travel. The Subhāshitaratnabhānḍāgāra observes at one place<sup>85</sup> "putting aside her shame she weeps. She holds the hem of his garment and places her fingers on the mouth to indicate that he should not go. She falls at his feet and takes recourse to all means to dissuade her darling not to proceed on travel!"

The trouble which the travellers had to face on the way had been very effectively described by Damodara Gupta.84 Tired after a long journey, his body covered with dust, the traveller after the sunset wanted to get some shelter. He requested the womenfolk of the house to provide him shelter for the night, but they refused to do so though he pointed out that even his near and dear ones travelled and had to undergo the same difficulties. As a matter of fact wherever a traveller stayed, it became his temporary home. He was ready to pass his night in any way asked by them. However, it was difficult for him to get any shelter after the sunset. The womenfolk insulted him by saying that as the master of the house was absent it was no use imploring them for shelter. It was better for him to proceed to the village temple. They also criticised his importunity. After many entreaties some householder showed him a broken corner of the house and asked him to pass the night there. Even after that his wife chided her husband for the whole night telling him why he had allowed a stranger to stay there and that he had to be careful as the thugs were prowling and one had to take care of himself. Women in the neighbourhood refused to lend him any pot to cook his food. He had to beg his food at many places. Damodara Gupta finally observes, eating other's food, sleeping on the ground, taking shelter in temples, using bricks as pillows, that was the fate of a traveller.

In the middle ages the roads were always in bad condition. During the rains the mud impeded the movement of travellers. The Subhāshitaratnabhāṇḍāgāra\*\*

tells us that travellers passing through the muddy roads missed their way and in the dark night slipped at every step. Even in the winter their plight was no better. Living in the village temple and their teeth chattering in cold wind, they were forced to pass their night wrapped in a thin quilt.86

But travellers were used to such kinds of hardships because the aim of their travel was to study the character of noble men, the prejudices of the common folk, joviality, the meaningful speeches of unchaste women, the deep meaning of the sastras, the character of the rakes and the means adopted by the thugs to cheat the people. The travel also gave the knowledge of the goshthis, people learnt how to wield weapons, they could also study the sastras, witness all kinds of amusements, learn the arts of cutting stencils, painting, and making figures of wax and stucco, music and dancing and the art of meaningful jokes and repartees. \*\*

We have observed above that the people also travelled for disputation in the sastras, gained knowledge and earned their livelihood. Among such travellers may be mentioned the great Kashmiri poet Bilhana, who has left account of his travels in the Vikramankadeva Charita (between 1080-1088 A.D.). After completing his education he set forth from Kashmir on a long travel. During his travels he visited Mathura by the Grand Route, and from there visiting Kanauj and Prayag reached Varanasi. Perhaps he met there the Kalachuri ruler Karna and lived in his court for several years. After leaving him and hearing the fame of Anhilwada and Somanatha, he undertook a journey to western India. However, his visit to Gujarat proved a failure and angered by this he became sarcastic on the uncivilised ways of the Gujaratis. After visiting Somanatha he took a ship from Veraval and disembarked at Honavar near Gokarna. From here he took a journey to South India and visited Rameswaram. Again he turned towards the north and the Chalukya ruler Vikrama appointed him as his pandit and thus honoured him.

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## CHAPTER XII

# INDIAN FLEET OVER THE SEAS

WE HAVE observed in the previous chapters that the relation between India and Indonesia was mostly cultural and commercial though this does not mean that the Indians, at times, following an expansionist policy, did not wage war against the original inhabitants of Indonesia to establish their colonies. Kaundinya who laid the foundation of Indian culture in Funan had to fight a sea battle with its queen. In this act of colonisation how many Indian fleets helped, we do not know from history, but it seems that in the establishment of the empire of Śrivijaya by the Śailendra dynasty, Indian fleets must have played an important part. The Arab geographers frequently mention the existence of Indian fleets on the western sea-coast of India, but the Arab fleets always proved stronger to Indian fleets and, therefore, they were able to subdue Indian fleets in many sea battles.

We want to draw the attention of scholars to such an incident in the eleventh century which informs us that even in this age Indian fleets were quite strong. In the middle of the ninth century the empire of the Sailendras was separated from Java. Even then the Sailendras were not very much weakened. In 1006 A.D. they invaded Java and destroyed it, but troubles were threatening them from the other side. In South India, the Cholas were dreaming of establishing themselves overseas and in order to fulfil this dream they, as a first step, subdued the eastern sea coast of India. The Sailendras maintained good relation with the Cholas in the beginning, but the imperial policy of the Cholas resulted in strained relations between the two empires. Within a short time Rājendra Chola conquered the ruler of Java and brought within his control Sumatra and the Malay peninsula. But the descendants of Rājendra Chola, taking advantage of these victories, could not strengthen their power in that region. Upto 1050 A.D. sea battles continued in a ding-dong manner but in the end the Cholas found it advisable to withdraw from such sporadic battles.

The conquests of the Cholas began from 907 A.D. in the reign of Parantaka I. Raja Raja the Great (985-1012 A.D.) after winning many battles established himself as the emperor of the whole of South India. His great son, Rajendra Chola (1012-1035 A.D.), carried his victories upto Bengal, thus making Chola the most powerful empire of India.

The Cholas were also a great sea power and, therefore, they came into contact with the Sailendras of Srivijaya. We are not aware of the reasons which led

to the break of hostilities between the Sailendras and the Cholas. Fortunately, the inscriptions of Rajendra Chola give some indication about his victories overseas. One of the inscriptions mentions that the victories overseas began in the early eleventh century. The inscriptions of Raja Rajendra at Tanjore and other inscriptions inform us that he conquered the following places in Indonesia and Malaya. Pannai is identified with Panai in the eastern part of Sumatra and Malaiyūr with Jambi. Mayirudingam was situated in the centre of the Malay peninsula. Langašokam was situated in the Isthmus of Johore or in Johore. Mapappalam was situated either in the west of the Isthmus of Kra or greater Pahang. Mevilimbangam, identified with Karmaranga, was situated in the Isthmus of Ligor. Vilaippamdūru is identified with Panduranga or Fanrang and Talaittakkolam with Takopa. Ma-tamralingam was situated in the east of the Malay peninsula between the Bay of Bandong and Nagorashri Dharmaraja. Ilamuridesam was situated in northern Sumatra. Manakkavaram is identified with the Nicobar Islands and Katahakadaram and Kidaram with the modern Kedah.

In the conquests of Rajendra Chola came almost the whole eastern part of Sumatra, and the central and southern parts of the Malay peninsula. He also occupied the capitals of Śrīvijaya and Kaṭāha. Perhaps this expedition started in 1025 A.D.

The Indian literature does not mention many sea battles. Therefore, we are surprised to read the description of an Indian fleet in the Tilakamañjari of Dhanapala. The story mentions that this Indian fleet was led by an Indian prince. Samaraketu of Raṅgaśālā. He led this expedition to Indonesia because the feudatory chiefs there had refused to pay the tributes and taxes in time. This victorious expedition of Samaraketu to Indonesia is described in such a great detail in the Tilakamañjari that it leaves no doubt that perhaps its writer Dhanapāla had himself accompanied the expedition or had heard about it from somebody who had accompanied it. Dhanapāla seems to have flourished in the reigns of Sīyaka and Vākpatirāja of Dhārā (774-995 A.D.). But Merutunga places him as the contemporary of Bhoja (1010-1025 A.D.). Whether the sea expedition described in the Tilakamañjarī gives glimpses of the victorious expedition of Rājendra Choļa, or some other Indian ruler, depends on the exact date of Dhanapāla. But there is hardly any doubt that Dhanapāla had an intimate knowledge of Indonesia.

The Tilakamanjari gives a very long description of the voyage to Indonesia, but owing to corrupt text at many places it is very difficult to interpret it correctly. But looking at its importance, I am giving below a free translation of the passages. The story begins thus:

"In Simhala was situated the city of Rangasala with its lofty palaces and high ramparts. Here my father Chandraketu was ordered to lead an expedition against the feudatories living on the periphery of the Suvela mountains who were very proud, did not pay the revenue in time, led the life of luxury and laziness, when asked to visit the ruler did not come under false pretences, did not show their face at the time of king's festival and showed their enmity towards him at many a time.

When the army was on the march they appointed me, who was adept in the know-ledge of Sastras, in archery, in politics, in wielding the sword, mace, lance etc., and appointed as a prince in his youth, to lead the army.

"In the morning after taking bath I worshipped my gods and then honoured the Brahmans with the gift of cloth etc. Thereafter, expert astrologers had determined the auspicious moment with the help of the sun dial, I clothed myself in white garments, decorated my hair with a chaplet, anointed perfume to my body, put on a pearl necklace reaching to the navel and then entered the pavilion whose gateway was decorated with the garlands of sandalwood and coral. Its courtyard was besprinkled with perfumed water, where courtesans dressed in white could be seen and which was attended by the chamberlains asking others to give way.

"As soon as I took my seat on the jewelled throne, the courtesans performed the auspicious lites for the beginning of the march. They raised their hands with twinkling bracelets and dipping their hands in red dye and dahi they raised the auspicious full vessels. I then worshipped the silver vessel and then was accompanied by the Brahmans reciting the Vedic hymns. A little farther, at the gateway, the chief minister Vajrānkuśa, brought an anointed elephant wearing ornaments and decorated with red-lead on the temples. On this elephant named Amaravallabha I mounted equipped with the bow in the left hand and the quiver on both the shoulders. The chauris were being plied all round, the bards were crying victory, pipes were being played and kettle drums were beaten on the elephants. Preceding my elephant the attendants were carrying the full vessels and the figures of Śarabha, Śārdūla and Makara etc.

"Following me, were the Brahmans praying for my victory. The citizens were throwing parched grains on me and old women prayed for the fulfilment of my mission. The women of the city looked at me endearingly. Passing this crowd we came out slowly from the city and in an orderly manner crossed its boundaries. The land bearing the beauty of the autumn was filled with the aroma of the ripening paddy, aquatic birds were gambolling in water and the parrots had dropped the half-eaten priyangu seeds on the ground.

"The ichor of the elephants was attracting the black bees and the army guards were controlling the crowd. After the march was over the elephants were led by their drivers to the thatched huts with heaps of different kinds of goods for being taken to Indonesia. The labourers making great din were putting ornaments and saddles on the bullocks. There, in newly sewn red tent, were placed huge water pots and there appeared heaps of bags in the courtyard. People were constantly going out and coming in. My followers with their horses and donkeys had encamped at many places. The stepped well had the surrounding white-washed, walls had rooms decorated inside and outside with the figures of the gods. The stepped well filled with fresh water had brick-built and white-washed cells all round decorated with the images of gods all over. The stepped wells on the roadside were brick-built and lined with banyan trees. After the rains the earth appeared washed clean. Merchants from the adjoining villages were selling cooked rice, pots of dahi, laddus

of sugar etc. In the forest rivers fishes were fighting for the tit-bits thrown by the travellers. The thatched huts were covered with creepers and trees. In their courtyards, in the shade of the pavilions, were seated fat dogs looking sleek on milk diet. The ghee being heated was spreading its aroma, the dahi churner was producing its noise. Summoned by the village officer the caravans and travellers were coming to him with their boxes. Encouraged by the Brahmans people were bathing and distributing alms. The elegant army was drawing the attention of the people. The cattle with bells tied round their necks were grazing and the cowherdesses were drawing people towards them by their tremulous glances.

"Seeing the vanguard of horsemen, the news spread all over that the army was coming. The people leaving aside their work began gathering at the dung heaps. Some climbed the trees and some raised their both hands. Some equipped themselves with knives, put on turbans and took hold of staves. Some carried children on their shoulders. The wonder-struck eyes of everybody were diverted on camels and elephants and they were trying to value the oxen separately on the strength of their sizes, power and shapes. The village chowkidar (gramalakutika) was getting confused with such questions as, "Tell us who is this prince?, Who is this queen?, What is the name of this elephant?", and questions of this nature. The poor villagers regarded cheap strumpets mounted on elephants as inmates of the harem. They regarded a bard as a feudatory chief and merchants as the controllers of the palaces. After asking a question and without waiting for the answer they moved to another place. Even while seeing they gesticulated and though they heard properly they still continued shouting. Caught by the crowds of camels, horses and bullocks people fled in all directions, shouting, clapping and laughing. Some poor fellows, in the hope that they would be able to see the princes, princesses and courtesans mounting the elephants, were looking expectantly. Awaiting their arrival they were troubled with hunger and thirst. Some poor fellows, when they reached the harvesting ground for straw, found that the horsemen had carried it before them. Some tried to save themselves from those who were trying to run away with the cattle fodder. Some others were being pestered by bribe-receivers. Some seeing their vegetable fields looted, were laughing and some were talking with the arrested robbers. Some were pacifying the unhappy farmers whose sugarcane fields had been looted and some were welcoming the prince from their big paddy farms. Some of them forced out of their houses by the Thakurs who had not found any shelter for themselves were searching suitable places for their goods. Seeing the chief commanders of elephants some people out of fear were removing grain to their granaries, hiding the cow-dung cakes, and secreting water-melons, bitter gourds and cucumbers from their fields to their houses. Women were hiding their ornaments. The villagers in order to welcome the army were standing at their gates decorated with toranas, holding flowers and fruits as gifts. At that time the bamboos of the encampment were being tied in bundles, and the yellow and magenta tent flies were being folded up. In this way at a slow speed we reached the sea-shore.

"The prince encamped on a level ground served by a fresh water stream. A little farther was located the camp of the chief minister. It was surrounded with the

colourful camps of the feudatory chiefs. They were provided with makara toraņas and the offices were located in between them. The tents equipped with variegated ropes were occupied by brave bodyguards. Bamboos were attached to three rows of pegs and these acted as a defence line for the camp. In this encampment could be seen white, red and multi-coloured pavilions and domed tents.

"Though troubled by separation with my folks, I consulted my cabinet and as their chief I inspected the gifts presented to me. I ordered to assemble a fleet on the sea-shore within a few days. After the completion of all the work the next day in the afternoon I marched with my council of the Brahmans to the accompaniment of martial music. Beautiful and well dressed women were singing songs about the solemnity and grandeur of the sea. After sipping the holy water, I offered oblations to the sea with curd, milk, rice, food, ointment, garlands and ornaments. Engaged in these ceremonies the night approached and the marching drums began beating. The drums beating at the Royal Gate aroused the people from their sleep and they came out of their camps. The labourers were also forced to leave their beds. Clever maids lit fire in the kitchens and arranged pot and pans near the ovens. The bullocks fought among themselves while eating the fodder. Labourers began pulling out the bomboos and after pulling out the pegs they began demolishing the encampment in an orderly manner. The fly tents were rolled. The rakes began joking with the maids mounted on wicked horses and oxen. Owing to the din of the army people became curious. As the shops were removed the purchasers wandered hither and thither with money to purchase articles. The Kikatas living in the nearby village took possession of food, fodder, and fuel. After removing their goods the camps were vacated. In this way the great army marched towards the sea-shore. As the day dawned people worshipped their gods, took food, gathered their household articles and put their women on carts. Water-pots were filled and personal belongings were loaded on weak-buffaloes. In this way separating myself from the army I came out of the audience hall.

"Removing servants and attendants from all sides, accompanied by the chiefs who had got up from their costly seats, and accompanied by elephants and horses, I proceeded to the dock (avataramarga) and saw there sailors (vetrika) engaged in their work. Among them I saw a young sailor twenty-five years old. Surprised to see his white garments and beautiful form I inquired about him from the admiral Yakshapalita. He informed me, 'Prince, this sailor is the head of the sailors' guild (kaivartatantra).' Not believing his word I replied, 'He seems to be so different than ordinary Kaivartas.' Thereafter, Yakshapalita recounted his life history. 'The great pilot, Vaiśravana of Suvarnadvīpa, got a son named Taraka in his old age. He, after studying all technical texts and loading his ship with precious cargo (sārabhānda) and sailing to Indonesia, reached Rangaśālāpurī with other pilots. There he struck friendship with a helmsman named Jalaketu living on the sea-shore and fell in love with his daughter, Priyadarsana. Love struck, he began wandering in the lanes of his beloved's quarter. One day Taraka saw her tumbling down from the steps, but he managed to save her from injury. After that Privadarsana accepted him as her husband and both began to live together. In

the meanwhile people informed him that the girl was rescued by Jalaketu from a shipwreck and in reality she was the daughter of a merchant. Taraka's comrades tried to persuade him to return to his home. His relations as well began complaining about the state of affairs, but in spite of all this Taraka refused to return to his home as he felt shy, but reached Rangasala. There he met Chandraketu who had heard about him from his attendants. He regarded Taraka as his own son-in-law and appointed him as the head of the sailors guild (nāvikatantra). Acting as the head of the sailors, within a short time he became adept in nautical science (naupracharavidya) and became an expert pilot. Many times he crossed the deep waters and sailed to the Eastern Archipelago though it was situated at a long distance. He was also well acquainted with smaller waterways and had thoroughly examined the areas he had covered. He was not touched with any of the shortcomings of sailors, neither he had the natural cowardice of the merchant community. While rescuing the shipwrecked merchants he had to face many dangers but he easily managed to avoid the aquatic animals. He is not frightened of the fathomless waters and. therefore, we should appoint him as commander of the fleet. Because with his knowledge and devotion to you he will be able to pilot the fleet to distant lands." While the minister was uttering these words that leader of the sailors came and bowed down to Samaraketu and in respectful loud voice said, 'Prince, hearing about your victorious march I have come to this sea-shore and I have completed the rigging of the ships. I have provided them also with other implements and enough food and filled the troughs with fresh water and also taken enough fuel. For the comfort of the body I have also taken ghee, oil, blankets and medicines and articles which are not available in the Eastern Archipelago. I have also taken small boats manned by sailors in the dock and provided them with the armed soldiers. Chariots, elephants, horses etc. which were not required for this voyage have been returned. Your ship's name is Vijaya-yatra. If you have no work, then please be ready for the glorious start.' Hearing his words the royal astrologer informed me that the auspicious moment for sailing had arrived. After that surrounded by chiefs I reached the water. Standing there shaking my head, saluting, uttering sweet words, smiling, and looking endearingly towards my followers, relatives, old men, friends and attendants I took leave of them. When the chamberlains cried, 'Boat boat' the sailors brought the ship. Before embarking I offered salutation to the sea with devotion and then Taraka holding my hand took me on board the ship. The cabin (mattavarana) located on the bow of the ship was provided with a seat and as soon as I reached it the chiefs and my attendants welcomed me by waving their dupattas and after that they also embarked on other ships. As soon as this was over the auspicious chankshells were blown as if challenging the feudal chiefs of the Eastern Archipelago. Many other musical instruments began playing and the bards began shouting for the victory of the prince. The astrologers began reciting verses and others began singing loudly. The joints of the ship were plugged and the slave girls printed auspicious palm impressions on it. The flag was raised. Though the sailors were engaged in their different vocations, Taraka, being the chief pilot, himself sat to guide their work. In the favourable wind the sails were raised up and the royal ship cutting the water proceeded to the south and passed the country dotted with villages, cities etc. Seeing aquatic birds and animals and

conquering many chiefs, and visiting forests, palaces, mines of gold, silver and precious stones, and seeing heaps of pearl oysters and sandalwood forests, the fleet sailed on. There we found a crowd of pilots coming from distant lands who were purchasing precious stones worthy of kings from the common people. The divers had anointed themselves with ointments and were collecting mineral oil (agnitaila) etc. Raising up the masts, rigging the sails and weighing the anchors and plugging the leaks and filling the fresh water troughs, we sailed on. There were cities on the shores of Indonesia and the inhabitants of the place had equipped themselves with bamboo shields for their defence. There we found palm leaf manuscripts inscribed in Kannada script. People were not so religious-minded. They did not believe in Varnāśrama religion and their belief was animistic. We would not understand their language. They were fierce to look at and were dressed in their peculiar costumes. In cruelty they were like Yama and like Ravana they specialised in abducting other people's wives. They were black in colour and wore in one ear earrings made of palm leaf. They were very quarrelsome people and wore iron bangles on their wrists. In this way protected by the Nishadas, the abode of all precious stones, the Eastern Archipelago was espied by us from a distance.

"After describing Dvīpantara a highly ornamental account of Suvela mountain appears. The place grew very high quality of palm, clove creepers grew there and there were rows of sandalwood trees. Once, while in his camp the envoys from the enemies presented themselves and at their request sailors were awarded cloths and ornaments. The ships were provided with fresh water and food and accompanied by the princes and warriors we proceeded on, and suddenly reached the capital of the Kiratas situated in a different country on the west. After destroying the robber chiefs we returned to our camp with their women and wealth. In the first march in the third quarter of the night, a soldier inquiring about the prince came near the boat and informed him that nearby in Panchasailakadvipa was situated a mountain named Ratnakūta. There, near the grassy jungle, cold and sweet water was available and it had coconut, plantain, jack fruit and date groves. Near the river there were plenty of rocks which could provide seats for worship of the gods. It was decided that the army should encamp there because of the long march the soldiers were very much tired, and troubled by sea wind they had become lethargic. The sea wind was also against them and, therefore, the tired sailors were unable to sail the ship any further. There was no suitable ground for encampment nearby. All over there were pools of water filled with cane growth. Therefore, after a stay of four days awaiting the arrival of the rear guard and attending to the wounds of the soldiers and feeding the infantry, sewing the torn sails and joining the timber of the ship broken by the rocks with strings and filling the water troughs with fresh water and providing themselves with fuel they could sail every day without stoppage. But for that they awaited for my final order.

"After thinking a while, I agreed to the suggestion. A little after that the aquatic animals became agitated, the bherunda birds began flying from their nests and the sea elephants came to the surface of the water. Tigers came out of their caves and the whole army hearing the beat of drums became almost immobile.

Fluttering their flags many ships, disabled on account of fast speed, reached the landing with difficulty. There was noise all round. People began talking, 'Sir, give us a little way.' 'Anga, don't push me.' 'Mangalaka, pushing others with the elbow does not show your bravery.' 'Hamsahasya, my lower garment has become loose and Lavanyavati is pushing me with her breasts. In this way I am being troubled both inside and outside.' 'Tarangikā run away. Your fat thighs are impeding the entire army.' 'Lavangika, the very sight of your kamarband make paricharaka tremble. While getting down from the boat the sight of you thighs is bound to put the visitors to shame.' 'Vyāghradatta, run your grandmother and mother-inlaw have fallen overboard and there is every danger to them from the crocodiles.' 'Why are you shedding tears? Take care of the ear ornaments of the women of the robbers' city, otherwise some pick-pocket is bound to pick your purse.' 'Balabhadraka, it's better you should give me the share of ghee of others because I have been very much troubled by violent people.' 'Friend Vasudatta, how am I to answer, why ladd us dear to my master have been destroyed by the sea water.' 'Mantharaka, this heavy quilt was swallowed by a whale as soon as it fell into the sea. Now I will have to die of cold.' 'Brother, while falling down you have unnecessarily broken your thigh bone dashing against the ship. Now you will have to be guided by your servant,' 'Agnimitra, leaving aside the staircase, why are you taking a more circuitous way. Falling down in the sea you will be devoured by the aquatic animals.' 'O Grahika, do not unnecessarily tap the shield of the turtle, better tap its vulnerable part with two fingers.' 'Carrying the load of rice the old attendant falling in the thick marshy jungle now finds himself in difficulty. Pull him by his leg.' The soldiers were talking among themselves. Some of them slept on the sand. Some injured their feet with sharp shells and some became the laughing stock of others slipping from the rocks. In this way after everyone had assembled on the shore the atmosphere was filled with fresh wave of courage.

"Gradually the ships brought to the shore, became lighter after the cargo was removed and they proceeded to the south-east of Suvela mountain for casting their anchors. The sails were taken off and the ships were secured to the firmly fixed pegs and the stone anchors were lowered. The sailors disembarked taking with them their baggages. Poor labourers became very tired by carrying heavy loads. The attendants preceding them came to Maniguhagriha which was cleared of insects. There were clove creepers and straight camphor trees. Fountains of fresh water were also available. The rakes dear to the prince, for fear of snakes, removed themselves from sandalwood trees. The limit of the encampment was demarcated by pegging. The camps of officers were spread out here and there. The site was cleared of bushes. The palace attendants put up camps for women. The courtesans also got their tents. The sandalwood was used as fuel. Soldiers troubled by cold and wind tried to protect themselves by gathering together their limbs. In the morning auspicious songs were heard from the north-western side of the Suvela mountain. I wanted to know from where the heavenly music was coming and decided to follow its direction. Taraka when asked informed, 'There is no difficulty in going there but the way is very difficult. It is inhabited by gigantic aquatic animals and the ships could be impeded by whirlpools. In such natural

impediments the pilot cannot determine even the uneven sea routes. Utmost help will be required there in the night.' Even after hearing about these difficulties I decided to go to the place from where the music was emanating. Taraka was at once ready and the ship following the sound of music sailed onwards slowly.

"The patient Taraka well versed in nautical science took with him five helmsmen. Though assured that there were no leakages even then he plugged the smallest leaks with wool and wax. The broken riggings were also replaced and he examined even the strongest sails now and then. The sailors began talking among themselves thus—'This swarm of makaras is coming', 'This group of crocodiles is passing us', 'Here are the dolphins', 'Here the water serpents are swimming', Bring the lamps and throw the light all round', 'Drive away the dangerous aquatic animals', 'Look here, the tiger is trying to attack the makara', 'Throw on its mouth the burning mineral oil torch', 'Look here, the water elephants have jumped into the sea. Drive away the turtles by clapping.'

"Looking at the whale following the fishes and water elephants and in order to save themselves from that calamity, Tāraka forbade his followers not to make noise. Avoiding the whirlpools he turned the ship to the left and thus bypassed them quickly. For avoiding the rain and the cyclone he ordered the use of poles, put strong riggings of the sails in order, casting of anchors, and making the use of oars. He thus issued orders—'Makaraka, raise the branch of the sandal-wood tree coming in the way.' 'Śakulaka, due to your carelessness the bottom of the ship has struck the oily marsh.' 'Adhīra, do not be diverted by my talk, proceed steadfastly. Wash your drowsy eyes with salt water.' 'Rājilaka, regardless of my instructions the ship is sailing to the south. It seems that you have forgotten the direction. You do not follow the northern direction even when told.'"

From the above account many phases of the army on the march in the medieval times are available. Samaraketu proceeded on his victorious march with all fanfare. In an auspicious moment after making offerings to the gods he proceeded on his march with martial music playing. The encampment is also realistically described. Here the goods for Indonesia were heaped and there were caravans with their horses and donkeys. Vendors were selling boiled rice, dahi and sweet-meats. Hearing about the march of the army the villagers began assembling and began talking among themselves about the army and waited for the arrival of the prince. They had also to suffer for this curiosity. Horsemen looted the animal fodder. They were forced to give bribe. Their sugarcane fields were looted and they were forced to leave their houses which had been occupied by soldiers. People hid their grains, vegetables and cow-dung cakes etc. and the women were taking care of their ornaments. Petty village officers were welcoming the army with small gifts.

A good account of the encampment near the sea-shore is also given. The encampment was provided with tents. The camp of the chief minister was situated a little away from the king's camp and in between lay the camps of the

officers. The camps of the bodyguards were in a line. All around the camp was a triple bamboo fencing. In the encampment there were special camps known as ajira and patāgāra.

Reaching the encampment, Samaraketu accepted the gifts offered by the people and then ordered the ships to be brought. Thereafter, the women singing songs in honour of the sea, the prince marched to the sea-shore. There, he worshipped the sea in the night, the encampment was struck and in the morning the prince with his army reached the sea-shore.

There the prince met the pilot Taraka who was a very clever navigator and did not care for any sea danger. He had been many times to the Eastern Archipelago and was acquainted with even the smaller waterways there. He informed the king that he had provided the ships with new riggings, new implements and articles of food and loaded them with cargo for those islands and for their protection provided them with armed soldiers. The fleet sailed with the music playing. After crossing many countries and winning many feudatory chiefs the ship reached the Eastern Archipelago. There he found the crowd of merchants purchasing gold and precious stones and the sailors gathering articles for their use. The inhabitants of those islands had shields made of bamboos. Their script resembled the Kannada script. There were very few who followed Hinduism. Women wore colourful garments and the men's costumes were strange. They were earrings of palm leaves and iron bangles. They were adept in stealing the women of others etc.

After defeating the Kirāta ruler the prince encamped near the Suvela mountain because the soldiers and sailors were tired and their wounds had to be attended to. While disembarking from the boat the sailors and soldiers conversed among themselves in the language of the sailors of today. Hearing the sound of music the prince decided to follow it. In the way Tāraka plugged the small leaks of the ship, examined thoroughly the sails, drove away the aquatic animals with lighted torches and avoided the whirlpools thus showing his knowledge of nautical science.

### II

We have seen in the first section how in the eleventh century Indian fleet sailed to Indonesia. We do not get any account about Indian fleets on the eastern and western coast and their battles in the eleventh century. In the seventh century Indian rulers had their fleets sailing from Sindh to Malabar and from the Cape Comorin to Tamralipti. Such a fleet must have faced the Arab fleets on the western coast. We also know how the Pallava king Narasimha Varman despatched his fleet to help the ruler of Sri Lanka, but such fleets are hardly mentioned in contemporary inscriptions. Fortunately, there are some Viragals at Eksar near Bombay which portray Indian ships. These Hero Stones were raised to honour the memory of those who had lost their lives either in a sea-

battle or in some other untoward accident. Near Bombay on the western railway one mile to the north west of the Borivali station, in the village Eksar there are six hero stones which could be dated to the eleventh century. Among these, two stones portray some battle scenes on the land.

The first hero stone  $(10' \times 3' \times 6'')$  has four panels. In the bottom panel two horsemen equipped with swords have struck down an archer. On the right side appears the dead hero along with other dead comrades floating on the clouds proceeding to Indraloka. In the second panel on the right two horsemen are fleeing leaving behind the archer who is facing six horsemen. In the third panel from the left a foot soldier has pierced an archer with his lance. Behind the foot soldier there are archers on elephants and below them three soldiers equipped with swords and shields are shown. In this very panel, on the right, one dead soldier with other soldiers mounted on an aerial car is proceeding to heaven. A little above, the Apsaras are guiding them to Sivaloka. In the fourth panel the Sivaloka is depicted, and in its left a man and woman are worshipping the Sivalinga. On the right, music is being performed. Above, the Apsaras equipped with garlands are carrying the bone relic casket.

The second Viragal (10' × 3' × 6") has also four panels. In the bottom panel there are corpses lying on the ground, flowers are being showered on them by the Apsaras. On the right, mounted on elephants, is the king along with his general and minister. The king's elephant is well decorated and the howdah is shaded by an umbrella. The elephant is holding a man with his trunk and flinging him on the ground and is trampelling him. In the second panel there is the figure of a ruler. One attendant is holding an umbrella over him and a second is holding a rose-water sprinkler. On the right is a horse rider fighting with the king. Above and below are seen many people engaged in battle. In the third panel, on the left, three elephants mounted by drivers are seen standing one behind the other. In the foreground two bearded men are fighting, and in the middle a raja seated on an elephant is engaged in battle. The perforated ears of the soldiers wearing huge round earrings prove that they came from the Konkan. Sulayman, the Arab traveller also observed that the people of the Konkan also wore large round earrings.2 In the fourth panel is depicted the Kailasa mountain. To the left side appears the dead warrior. The Apsaras are showering garlands on him. On the right, women are singing and dancing. On the top is the bone relic casket, with the flying gods holding garlands.

The third Viragal ( $10' \times 3' \times 6'$ ) has four panels. In the bottom panel, there are five ships fitted with masts. On one side nine oars are seen moving. These ships are ready for battle and armed soldiers are seen on the deck. Out of these five ships, the last one is perhaps that of the king because on its bow are seen women. In the second panel appear four ships, a part of the flotilla is represented in the bottom panel. These ships are attacking a much larger ship whose sailors are seen falling into the sea. Above this panel is an inscription of the eleventh century which cannot be deciphered now. In the third panel, on the

left, three people are worshipping the Śivalinga. On the right is the congregation of Gandharvas. In the fourth panel, in the midst of the Himalayas with the gods there is the representation of Śiva-Pārvatī. On the top appears the bone relic casket (Pl. II a, III a).

In the fourth Viragal (10' × 3' × 6") there are eight panels. In the bottom panel are represented eleven ships equipped with weapons and soldiers attacking another ship. In the second panel five ships are seen coming from the left attacking a boat coming from the right. The wounded soldiers of the boat are falling into the sea. Below the panel there is an inscription of the eleventh century which cannot be read now. In the third panel nine ships are returning after their victory. In the fourth panel soldiers are seen disembarking from the ship and retreating. In the fifth panel, from the left, the army is on the march with some eminent person along with four attendants welcoming it. In the sixth panel, on the left eight persons are worshipping the Sivalinga; on the right Apsaras and Gandharvas are seen singing and dancing. In the seventh panel, perhaps, Siva is represented. On the left Apsaras are seen with the warriors and on the right the horns and the conch-shells are being blown and the clappers are being struck. In the eighth panel the temple of Lord Siva in heaven is shown.

In the fifth Viragal (6'  $\times$  3'  $\times$  6") there are four panels. In the bottom panel are represented six ships equipped with masts and oars. In one ship, the king is seated under a canopy. In the second panel, six ships, three proceeding from the left and three from the right, are engaged in a naval battle. In this battle many wounded and dead soldiers are falling into the sea. In the central panel Apsaras are throwing garlands on the dead warriors. In the third panel, heaven with a Sivalinga is depicted. A man seated on a chair is worshipping it. The standing women are seen carrying the articles for worship. On the right Gandharvas and Apsaras are engaged in music and dancing. In the top panel the king is holding Durbar and Apsaras are greeting him (Pl. II b, III b).

In the sixth Viragal (4' × 15" × 6") there are two panels. In the bottom panel a sea battle is in progress and in the top panel a warrior is shown seated in heaven.

As we have said above due to the illegibility of the inscriptions it is very difficult to identify the parties who participated in the battles on the land and the sea. The late Mr. Braz Fernandes was of the opinion that these hero stones throw light on the battle between the Kadambas and the Śilāhāras. Whatever may be the case, there is no doubt that these battles were historically important, and perhaps the sea coast of Sopara might have been the venue of these battles. There is nothing wrong in believing that this sea battle may have been fought for the occupation of the post of Sopara.

Here we want to draw attention to a historical incident in which the famous king Bhoja of Malwa had conquered the Konkan. The copper plate of king Bhoja-

deva from Bansawada<sup>5</sup> informs us that in 1020 A.D. because of his victory over the Konkan, he gave land in charity to a Brahman. From a copper plate of 1020 A.D. found in Behama near Indore<sup>6</sup> we come to know that to celebrate his victory over the Konkan Bhojadeva gave a village in charity to a Brahman who belonged to Nyāyapadra (Napad in Kaira village).

From a copper plate inscription of Yasovarman found at Kalavan (district Nasik)<sup>7</sup> we come to know that by the favour of king Bhojadeva, Yasovarman, on a solar eclipse day, gave something in charity to a Brahman. On the strength of these inscriptions we could safely affirm that Bhojadeva had conquered the Konkan before 1019 A.D. and held his sway over the Konkan upto Nasik. It is possible that king Bhojadeva's army marched on the Grand Route of Ujjain to Nasik and from there passing Nanaghat proceeded to Sopara. Here he may have fought the ruler of the Konkan in which fleets of both the sides took part. But the victory of king Bhoja was very short lived because a little before 1024 A.D. Jayasimha of Kalyan had defeated Bhojaraja, the ruler of the seven Konkans.<sup>8</sup>

According to Dr. Altekar, however, in these hero stones we find the attack of king Someśvara (1240-1265 A.D.) on Mahädeva, king of the Yādavas. The war was between the army and elephants on one side and the flotilla of ships on the other in which Someśvara thought better of drowning himself, than falling into the hands of Mahädeva.

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### CHAPTER XIII

# CARAVAN IN INDIAN ART

In THE preceding chapters, on the strength of historical, geographical and commercial evidences, we have tried to trace the history of trade routes on which the conquerors, caravans and merchants travelled and maintained the national and international relations of India. In this chapter we shall try to probe the material about the caravan available from Indian sculpture and painting. As the early Indian art is realistic we could expect to get some details of the caravan travelling on land and sea routes. Unfortunately, though these early sculptures throw light on other aspects of Indian life, it is almost silent on the modes of travelling. Therefore, very few Indian ships have been represented and little information is available on the travellers on the land and sea routes.

As we have seen above, some boats have been represented on the seals and potsherds of the Indus Valley Culture (see Figs. 1, 2, 3, 4). Both the bow and stern of these ships were raked. But after the Indus Valley Culture we do not get any representation of Indian ship in art. In the second century B.C., however, a ship is represented in a Bharhut bas-relief. This ship is raked at both ends. Three sailors are shown on it and it seems to have been built by a primitive technique. The coconut fibre seems to have been used for sewing the timber together. This ship has been attacked by a sea monster which is swallowing the travellers fallen into the sea (Pl. IV). According to Dr. Barua, this particular scene refers to the rescue of Vasugupta from the mouth of a whale.

The bas-reliefs of Sanchi have very few representations of boats. Only at two places boats have been represented. At one place it is a river boat made of timber sewn together with coconut fibre (Fig. 7). At a second place the boat is shaped like a strange animal whose body is that of a fish and the head is that of a jardula (Fig. 8). There is a cabin in the centre and the boat is manned by a boatman. In the early centuries of the Christian era, a boat is represented only in one of the Amaravati bas-reliefs. As Amaravati stupa was built during the Shavahana period one could expect the representation of ships and merchants in its bas-reliefs. Fortunately, as we have seen in Chapter V, some coins (see Fig. 5) of Yajnaśri Shakarni represent two masted ships equipped with riggings and sails, their bows and sterns being raked. There is no doubt that such ships sailed from the eastern sea-coast of India upto China on one side and Alexandria on the other.

In the middle portion of a bas-relief from Amaravatis (Fig. 9) we find the

representation of either a boat or a ship. The bottom of the ship is flat and the bow is square. In the middle is located the cabin where a familiar symbol is seen

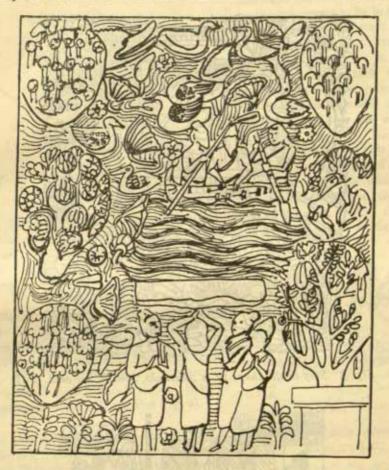


Fig. 7 Ship on the Eastern Gateway, Great Stupa, Sanchi, 1st cent. B.C.

on a chair. On the stern a sailor is seated holding oars and on the bow a Buddhist monk is seated with folded hands. It seems that the ship was meant for carrying the body relics of the Buddha to Sri Lanka or to some other country.

As we have seen before, in the Gupta age Indian shipping reached a great height, but unfortunately we do not find many representations of the ship in the art of that period. A terracotta seal found from Basaraha in the Gupta age shows the figure of Sri Lakshmi standing on the ship (Fig. 10), but the figure is so complicated that it is very difficult to describe it. At first, in the oval in the lower part of the seal, appears a horn-like object, perhaps representing the bottom of the ship. The side of the middle of the ship is higher than the bow and stern and

perhaps two parallel lines there indicate the presence of the deck. The bow is on the right and on the same side is represented an oar going obliquely into the water.

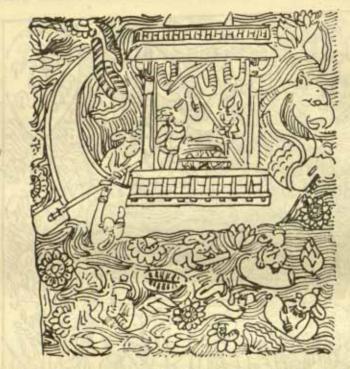


Fig. 8 Ship in the shape of a Shardula, Sanchi, 1st cent. B.C.



Fig. 9 Boat carrying Buddhist symbol, Amaravati, 2nd cent. A.D.

In the right corner of the upper line, towards the bow, there are two slightly bending parallel beams behind which there are three banner posts which rising above



Fig. 10 Lakshmi on a ship, Vaisali, 5th cent, A.D.

behind at the top, so that the post on the left seems to be bending the most. Towards the stern appears a bigger banner post from which banners are hanging. In between these banners appears a square platform on which stands the Goddess draped in a muslin sart. On her right appears the conchshell and below, the lion. The appearance of conchshell leaves no doubt about the identification of the Goddess as Śrī-Lakshmi whose one of the cognizances is the conchshell.

It is in the fitness of things that Lakshmi, the presiding deity of wealth, should be associated with ships which, in ancient times, brought untold wealth to the country.

This seal also supports the ancient maxim Vyāpāre Vasate Lakshmī ("In trade dwells Lakshmī").

We could expect many representations of boats in Ajanta painting, but they have been represented there only thrice. In cave XVII, Vijaya's voyage to Sri Lanka has been represented. Here one of the boats is represented as an almond-shaped bowl whose bow is makara-shaped' (Fig. 11; see also Fig. 6).

In cave II,8 as we have already seen in Chapter VII, a ship is represented in connection with Purna's story. Both the bow and



Fig. 11 Ship, Ajanta, 5th cent. A.D.

stern of the ship are raked and marked with the symbol of the eye. Its both ends are provided with brakes and it has three masts and sails. A fourth sail on the stern in a square frame is fluttering from an oblique mast. Towards the bow is located a cabin, and after that there appear twelve pots within a shaded pavilion. The pots perhaps contain drinking water or some such drink. Two mermaids are shown swimming in the sea (Fig. 12).

At a third place in Ajanta, perhaps a river-going boat has been represented. The bow and stern are raked and show the eye symbol. In the middle of the boat is located a curtained cabin under which is seated a king with a couple of courtesans on either side. An attendant holds an umbrella over his head and another is plying the rudder and a third is plying the oar.

Though ships and boats are very inadequately represented in ancient Indian art, fortunately in the bas-reliefs of Borobudur, five outrigger medieval ships of the

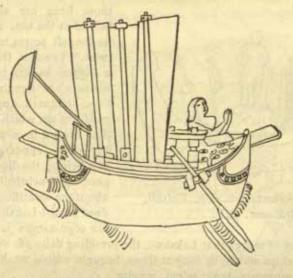


Fig. 12 Ship, Ajanta, 6th cent. A.D.

eighth century are represented. These ships with raised bows and sterns resemble very much the Kura-Kura ships of Malaysia before the advent of Europeans on the scene.<sup>10</sup>

In one type, the outriggers are made of a compound float held together by three straight and three curved booms. Broad rails are provided on the top of the float, perhaps to hold them in a sloping position, or as seats for the crew in a strong wind to give the ship more stability; this arrangement is still followed in the boats of indigenous make. There are open rowlocks on the fore and aft made of round spars sloping upwards apparently to break the strength of the waves. The gallery on the stern with a sailor was used by the crew whereas the cargo filled the rest of the space which also served as a place for working and storing the anchors. At the stern and bow we see the rings with peculiar "eyes" under them, as at Ajanta. The one possibly symbolising the speed and the other keeping watch over the waters. As noted by Krom, these features are very common in the Kura-Kura boats of the east corner of Java and the prahus of Batavia. The rudder is located on the side of the stern; perhaps there was a second one on the other side. A deck-house with an awning is located between the two masts, the front mast is longer and made of two spars raked forward, rigged by ropes fore and aft. On other outrigger ships represented in the reliefs the raised masts are provided with ladders for going aloft. The top of the mast at the joint has a tuft-like ornament which perhaps stands for a bundle of coloured ropes. Both the masts have square sails and at the bow was another sail which seems to have been three-cornered and is fastened at the top to the washtrake with its upper end and other end to the portside. The

crew is busy; some are rigging the sails and some are busy in manipulating the rudder. A sailor on the outrigger is going aloft the mast (Pl. V a).

In another ship<sup>11</sup> the sailors are vigorously rowing. They are placed between the decks. The rings are visible in the float where the washtrake is shaped like a buffer. The second mast seems to be a single spar; the mast tops are decorated with carvings. In the centre the deck is covered with an awning (Pl. V b).

In the third ship there is a small sail boat in front of the big ship specially for transporting the passengers and the crew. We already know from the Samaraichhakahā that smaller boats always accompanied larger ships and were used for various purposes including the rescue work. The outrigger of the large ship has four pairs of booms, but the top of the float held by somebody is single; besides the oars, some of the rowers' heads can be seen. At the foremast the coupling blocks of the two spars with holes for the rope are distinctly perceptible. The flags at the bow and stern are clearly seen and the flying pennant at the top of the mast and the sails indicate the direction of the wind. By the side of the square sail attached to two yards at the bow sits one of the sailors, holding one of the washtrakes; there is also a circular object not yet identified. The little boat has a higher deck, is single masted and provided with a square sail with sailors holding ropes attached to the end of the yards. The "eye" appears on the bow (Pl. VI a).

We get the representation of an outrigger boat as well.<sup>12</sup> It has no deck-house, but is provided with elaborate washtrakes made of single curved booms and double latticed floating. The wings and eyes are quite distinct and there is a man at the helm. The rowlocks, the railing leaning inwards, the bamboo washtrakes at the bow and stern with their gratings may also be noticed. The masts have two poles, provided with rings; there is a four-leaved ornament in front of the bowsprit. The sailors are engaged in their work (PJ. VI b).

The last of the outrigger ship13 is single masted, its deck-house is very distinct, the oars and the heads of the crew may also be seen. The mast coupling has a cushion-shaped block on it; short derricks are provided on the deck fore and aft and the latter has a flag on it. Here too the sails are being lowered; the washtrakes, fore and aft, are remarkably high on the bow and stern (Pl. VII).

Besides the ships described above three strongly built boats appear in Borobudur reliefs. They have a row of small blocks on the outside. The bow of the boat is sloping, the stern vertical. All the three ships are one-masted. The rudder is not shown. On one boat, part of the crew is hoisting and lowering the sails, while others are fishing. The damaged ship has a square sail with a sailor sitting at its lower yard (Pl. VIII a). One of the ships shows how a drowning man is being pulled on board the ship; it shows a gallery built over the stern on which perhaps a helmsman is standing. The raked mast has a square sail (Pl. VIII b).

Mon. Van Erp is of the opinion that the larger outrigger ships were slow

going. These ships certainly show Indian influence, though the compound mast shows Chinese influence.

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Ancient Indian art does not represent frequently scenes related to travel on land routes. If we want to know about the various aspects of the urban culture



Fig. 13 Bullock-cart, Bharhut, 2nd cent. B.C.

of India, then ancient Indian art provides ample material. Decorated chariots, caparisoned horses and elephants and architectural details are often represented, but so far as the caravan is concerned there appear very few scenes directly related to its working. As we are aware, the bullock cart was extensively used for travelling in ancient India and its representation in Indian art has survived at places. Its representation at Bharhut14 differs in no way with its modern prototype. At another place at Bharhut15, a two wheeled square cushionedc art with the straight back seat made of wood is shown (Fig. 13). The unvoked bullocks

are resting on the ground. The cart driver or a merchant is seated behind on the left. Barua identifies this scene with the Vannu Jataka in which the Bodhisattva accompanying a caravan which had lost its way in a desert managed to guide it to its destination through his skill. The bas-reliefs of Sanchi inform us that very often travellers used highly caparisoned horses. The ancient literature is almost silent on the point whether horses except in the case of army, were used for long journeys, but there is hardly any doubt that for short distances the people of high status used highly caparisoned horses. Good horses have been frequently represented on Sanchi reliefs. Elephant as a vehicle was very common in ancient India. Elephants formed a part of the army but they always accompanied kings on long marches. As far as we know elephants were not used as a means of transport in long journeys, but camels were used for this purpose since a long time.

In Bharhut reliefs storage space for goods and shops have been often represented. At one place<sup>19</sup> two big gowdowns and a large granary are represented (Pl. IX a). Barua identifies the scene with the Gahapati Jataka (No. 199), according to which the Bodhisattva once saw his wife with the village chief, but that cunning woman, as soon as she saw him, entered the granary and there began simulating that she was handing over grains to her paramour in exchange for some meat.

In one of the Bharhut reliefs<sup>20</sup> a market has been represented (Pl. IX b). It has three blocks. A shop keeper is pouring something from a vessel into a tray held by a purchaser. On the right stands a carrier carrying two pots on a hanger.

At another place at Bharhut a shop has been represented.<sup>21</sup> On the right stand two merchants with two bundles probably containing textiles and a heap of plantains lying on the ground. On the left, two merchants wearing caps are apparently settling the price of their goods (Pl. X a).

In the bas-reliefs of Mathura, representations of contemporary vehicles appear. For the transport of goods ordinary bullock carts were used. In one relief

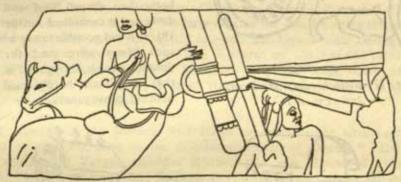


Fig. 14 Bullock-cart, Mathura, 2nd cent. A.D.

the bullocks yoked to the cart and the driver seated on the ground are shown (Fig. 14). Covered bullock carts were used for carrying people (Fig. 15).22 The driver sat near the yoke.

Elsewhere at Mathura a carriage drawn by two horses and carrying three men with a driver is shown (Fig. 16).23



Fig. 15 Cart, Mathura, 2nd cent. A.D.



Fig. 16 Horse-cart, Mathura, 2nd cent. A.D.

The bas-reliefs of Amaravati inform us that in South India, in the early centuries of the Christian era, a light bullock cart was used for carrying passengers and goods (Fig. 17).24

Perhaps princes and noblemen used litters (iibikā); two varieties of which have

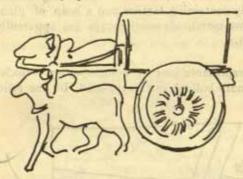
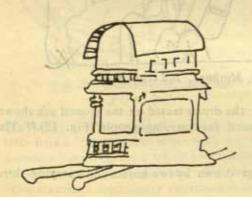


Fig. 17 Bullock-cart, Mathura, 2nd cent. A.D.

been represented at Amaravati.<sup>28</sup>
One type is shaped like a small pavilion with an ornamental ceiling and is fenced. It is provided with a pole on either side for carrying it aloft (Fig. 18). The second type appears like a miniature house which has horse-shoe shaped roof and windows and is cushioned inside (Fig. 19). It is not possible to say whether such litters were used for long distance travels, though it is clear that merchants hardly used such delicate conveyances.





Figs. 18 & 19 Palanquins, Amaravati, 2nd cent. A.D.



Fig. 20 Bullock-carts, Goli, 2nd cent. A.D.

The bullock carts represented in the bas-reliefs of Goli<sup>26</sup> are well furnished and decorated. They are square in plan and their sides seem to have been woven with cane. The roof is well decorated and the opening is curtained. The driver is seated near the yoke (Fig. 20).

We have seem many times in preceding chapters that when sea merchants embarked or disembarked in the ports they presented themselves to local rulers and gained their favour with suitable presents. Such a scene depicting foreign merchants visiting an Indian court appears in an Amaravati<sup>27</sup> relief as well as in an Ajanta painting.<sup>28</sup> At Amaravati the scene forms a part of the Vessantara Jataka where king Bandhuma is shown receiving presents. In the scene the king is seen seated on throne surrounded by two chauri and one fan bearers. The queen is seated on his left surrounded by female attendants. In the foreground of the composition are seen foreign merchants wearing tunics, trousers, kamarbands and full boots, kneeling down on the floor and offering presents to the king. The leader of the party is offering a pearl necklace to him (Pl. X b).

A similar scene is represented at Ajanta, which has often been identified as the party of the envoy of Khusrau of Iran offering presents to the Chālukya ruler Pulakeśin II. In this scene a party of foreigners is seen at the gate of the royal court's entrance. From the party two have entered the court holding the presents in their hands. The court is full of courtiers and high officials among whom may be seen these foreigners. The king is seated on a throne and behind him stand a number of attendants. These foreigners wear high caps, coats, trousers and boots. One of them holds a jewel tray. From their costumes it appears that they were perhaps Syrians.

The coming of the Iranians and Iraqis to India in the sixth century is indicated by two references in the Dašakumāracharita of Daṇḍin. The third chapter mentions a Yavana merchant Khanati who was cheated of a valuable diamond. Agashe suggests that Khanati is the Indianised form of the Turkish Khān, but in the southern recension the variant of Khanati is Asabhiti which may be the Indianised form of the Persian Āsaf. However, these words came to Persian language from the Turkish during the Mughal period, that means the Khanati in the Dašakumāracharita is of a very late date, though scholars are almost unanimous that the work could be dated to the 5th-6th century A.D. It is, therefore, suggested that Khanati may be derived from the Iranian word kandan 'to dig'. But all these suggestions require further research. However, it is quite possible that Khanati was a merchant of Sassanian Iran who visited India for trade in the sixth century. The word Yavana, however, came after the early centuries of the Christian era. Yet it lost its original significance and began to be used for all foreigners including the Iranians, Arabs, Syrians and Greeks.

A second Yavana is referred to in the sixth chapter of the Dašakumāra-charita. The story mentions that by the order of Bhimadhanvā, Mitragupta was thrown into the sea near Tāmralipti. The next morning a Yavana ship saw and rescued him from drowning. The rescuers took him to their captain Rāmeshu who was satisfied to get a strong slave who would help him to irrigate his vine-yard. In the meanwhile a battle ship (madgu) surrounded by many boats attacked the Yavana ship. The Yavanas began losing the engagement and at that moment Mitragupta requested them to remove his bonds. Being free he attacked and defeated the enemy ship which he found out belonged to Bhimadhanvā.

Now the question arises about the nationality of captain Rāmeshu. Agashe assigns him the Iranian nationality without any reason. The late Dr. Unwala, an authority in Iranian and western Asiatic languages, however, informed me that the word Rāmeshu is of Syrian origin and could be derived from ram= handsome and ishu=Jesus. It is now clear that the Syrian Christian merchants also came to India for trade.

Now and then we get the representation of conveyances and markets in the wall-paintings of Ajanta. In the Vessantara Jataka scene when the king is being

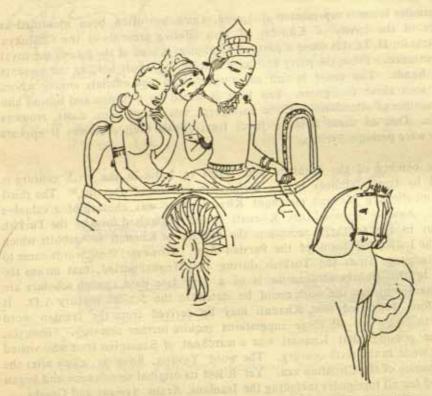


Fig. 21 Vishvantara riding a chariot, Ajanta, 6th cent. A.D.

exiled from the city some shops and conveyances are represented. The carriage on which the king with his family is mounted is rectangular in plan drawn by four horses; there is a square frame in front and the rear, perhaps used for covering the vehicle. The inside of the carriage is cushioned (Fig. 21).<sup>21</sup>

In the market to the right four shops are located in which shop-keepers are shown busy. One of them with two pots lying before him, is bowing down to the king; the second is pouring out oil in a cup and the third, around whom lie pots and pans, is weighing something. It is possible that the shop is either of a jeweller or of a perfumer (Fig. 22).

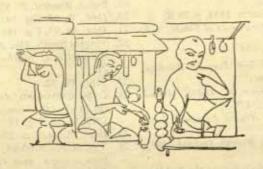


Fig. 22 Merchant, Ajanta, 6th cent. A.D.

In cave XVII of Ajanta an open carriage fenced on all sides is represented (Fig. 23).22

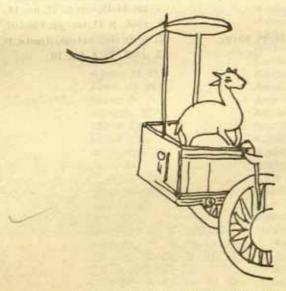


Fig. 23 An open cart, Ajanta, 6th cent. A.D.

From the above account it is evident that there were hardly any notable changes in the form of vehicles in the course of centuries. The vehicles used after the seventh century are hardly represented in conventional works of art. One could safely surmise that these must not have differed very much from their previous prototypes.

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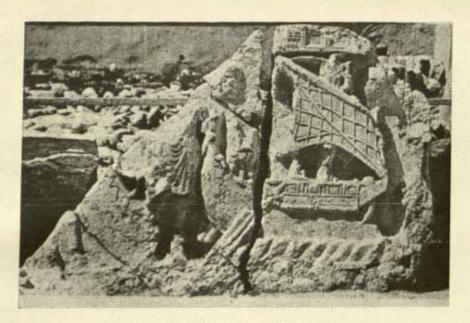
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Ia Sculptured slab, Museum of Palmyra



Ib Lakshmi, Lampeskos, 2nd-3rd cent. A.D.



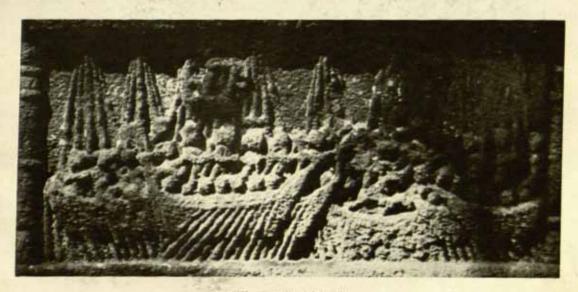
Ha Memorial stone, Eksar (Thana), early 12th cent. A.D.

11b Memorial stone, Eksar (Thana), early 12th cent. A.D.





IIIa Detail of Pl. IIa



IIIb Detail of Pl. IIb



IV Whale attacking a boat, Bharhut, 2nd cent. A.D.



Va Ship with crew, Borobudur, 8th cent, A.D.



Vb Ship with crew, Borobudur, 8th cent. A.D.



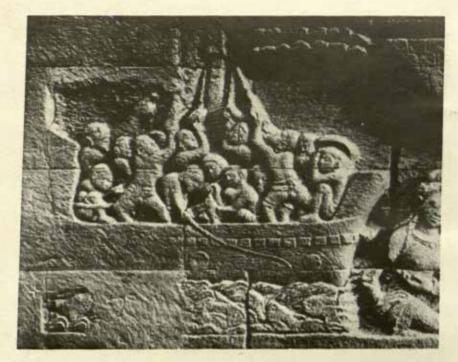
VIa Ship and a boat, Borobudur, 8th cent. A.D.



VIb Ship Borobudur, 8th cent, A.D.

VII Ship, Borobudur, 8th cent. A.D.





VIIIa Ship, Borobudur, 8th cent. A.D.



VIIIb Rescue of a drowning man, Borobudur, 8th cent. A.D.

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