Chapter 3

Trade Network between India and China
TRADE NETWORK BETWEEN INDIA AND CHINA

The trade between India and China started developing during the Han period in about 2nd century BCE. Initially, the trade activities were carried out through the Silk Road. This long route passing through Central Asia was prolifically used by the merchants of South Asia, Southeast Asia, Central Asia and East Asia. But the popularity of Silk Road decreased when the maritime route became popular in around 7th-8th century CE. The maritime route was regarded profitable and convenient as ships could carry bulk of goods in a single voyage which was not possible through the Silk Road.

The chapter thus focuses on ancient trade interactions and contacts between India and China in the light of the trade routes. It includes significant details about the land route and goods transported; shipwrecks carrying Chinese porcelain, their probable route, period, place of origin; commodities exchanged; and cultural influences.

Trade

The trade connection between India and China established initially through the land route known as the Silk Road. The term was first coined by a German scholar, F.V. Richthofen, in his book China, published in 1877 after which it was widely accepted (Drege and Buhrer 1989: 6). Richthofen used this term for mentioning about the trade routes connecting China, India and the Roman world via Central Asia. The name Silk Road was given to this route mainly because of the trade of Silk but numerous other goods were also exported.

The contacts between India and China in terms of Silk trade were established in the Han period (206 BCE-220 CE) and continued till the Ming period (1368-1644 CE). The Chinese silk was favourite amongst the kings in India even though it was produced in India as well during the Gupta period onwards (Dale 2008: 80). As silk was coming to India from China, in the similar manner cotton was exported to China through the main Silk Road and internal trade routes passing through Gangetic region,
West Bengal, northeast India, and Myanmar (Dale 2008: 80). Like silk, another exotic item which was exported from China through the Silk Road was Chinese porcelain. The demand of porcelain was extremely high in the Near East and India. Discovery of the Yuan and Ming periods’ porcelain all along the Central Asia especially at Fustat, Damascus, Syria, Kharakhoto, Samarkand, Niya, Bukhara, etc. have confirmed its trade through the land route. Even one of the largest hoards of Yuan’s period blue-and-white porcelain discovered at Firozshah Kotla in Delhi may also have reached India through the Silk Road.

There is no confirmed date about the earliest use of this Central Asian route. But on the basis of some archaeological studies it was found that the use of this route by the nomadic and wanderers must have commenced as early as in 2nd millennium BCE. The studies revealed that the use of this land route began as soon as the communities started practicing mobile forms of horse pastoralism in steppe lands of inner Eurasia. This practice must have increased the contacts and movements of the nomadic communities. According to Anthony and Brown, the earliest evidence of horse riding has been noticed at Ukraine and south Russia by the Sredny Stog communities which dates back to 4000 BCE and in the same way “it is also possible that horses were domesticated farther east, at sites such as Boatai in north Kazakhstan, at about the same time” (Christian 2000: 10; Anthony and Brown 1991: 22-23). The findings of burial mounds often having slaughtered animals have been noticed in the steppes of south Russia and west Kazakhstan from the mid 4th millennium BCE (Dergachev 1989: 796). These pastoral communities spread in eastern Kazakhstan and into the parts of Mongolia by 2nd millennium BCE which gives a slight idea about the origin of the Silk Road (Christian 2000: 11). The movement of communities over the large area of Central Asia must have advanced trade practices initially through barter along with exchange of cultures, customs, practices, languages, and technologies. The widely known Silk Road of today passing through Central Asia took several years to expand but certainly it started developing as early as in 2nd century BCE during the Han period.

In about 2nd century BCE itself, Emperor Wu of Han dynasty sent an envoy headed by Zhang Qian (Chang Ch’ien) to Bactria through the Silk Road. Zhang Qian passed
through some important regions of Central Asia including Ta-yuan (Ferghana), Ta-hsia (Bactria), and Anhsi (Parthia). While visiting through this route he was attacked by the Huns and imprisoned. He managed to fled back China after ten years and brought priceless information of the countries he visited and heard about. He reported about the trade of goods on the Silk Road. He also mentioned about the bamboo canes from Ch’iung and cloth made in the province of Shu when he was in Ta-hsia. He came to know that the products of China were brought by the merchants of Ta-hsia from the markets of Shen-tu (India) which lays on a great river several thousand li (1 li = 0.5 km) southeast of Ta-hsia (Watson 1961: 269). These descriptions of Zhang Qian impressed Emperor Wu who thought of opening the trade policies and capturing the markets of Silk Road to gain maximum profits through direct trades. It was during this period when the road gained popularity and started developing.

With the opening of land route, the embassies from China were sent to the regions of Central Asia as a result friendly relations developed between China and Ferghana. The route was unsecure for trade and commerce therefore a number of military operations were carried out in Central Asia by the Chinese Empire so that it could be freed from bandits and looters. With the progression of time, the land route became safer for trade purposes which attracted traders from different countries. Along with trade, the route also draws attractions of religious and cultural missionaries which entering in China. It was the time when the Buddhist missionaries from India were sent to China (Bagchi 1950: 6). In the 1st century CE, China became a strong empire and most of the small kingdoms in Central Asia acknowledged their rule. Traders from all directions started visiting China to trade their products in spite of a tough and rigorous land route.

The Silk Road was a difficult passage to pass but extensively used by the merchants of different regions. The countries which were located along the route earned high profits from the trade. The export and import via this land route was very expensive and therefore only the trade of luxury goods was preferred. Exotic items of trade mainly precious metals including gold, silver, glass, silk, precious stones, animals, birds, etc. “The discovery of a merchant’s store-room at Begram in Afghanistan has shown that Chinese lacquer was imported and that the exports from the Mediterranean included
decorative stucco reliefs and glass” (Gray 1963: 13).

This trade through the land route was of comparatively small scale which expanded after the 8th century CE when China became more powerful and favoured international trade. The trade between China and Persia grew at large during this time.

The evidence of this strong interaction has been confirmed by the findings of silver coins of Byzantium and the Sasanian Empires from the 6th century tombs at Ch’ang-an (X’ian) in China (Gray 1963: 13).

The route was quite long and the journey was hard so very few traders used to travel the entire distance. This route was full of natural hurdles also as sandstorms and avalanches in the Taklimakan desert were quite unpredictable. The threat of bandits was equally dangerous although initially China tried to secure the route. Traders often used to give large amount of taxes and bribes to local officials for merely passing through their respective regions. Most of traders preferred to trade whatever they had and returned home. Therefore, usually a single product used to pass through many hands, as a result each time becoming more valuable and costly (Brown 2006: 12).

This road remained in use for several centuries and was a cultural corridor for the people of different castes and creeds. It was a medium for political, economical, and cultural interactions between ancient China and the Western world (Wang 2012: 13).

China and Central Asia

The geography of the Central Asia made the Silk Road tough and hard to cross. In the north, it is bounded by the T’ien-shan or ‘celestial mountains’ while in the south, it is separated from Tibet by K’un-lun ranges. Its eastern side has Nan-shan ranges, an extension of the K’un-lun and on the west it has the Pamir ranges known as T’song-ling in Chinese. The Pamir ranges connect the T’ien-shan with the Hindu Kush.
Along these mountains, there were some river basins which gradually dried up. Once upon a time, population grew up along these rivers and colonies were developed all along the Silk Road (Bagchi 1950: 9).

This long route stretching thousands of kilometres connected Ch’ang-an (present day X’ian) with the Rome (map 3). The route passed through the Gobi Desert and reached Dunhuang where it bifurcated into northern and southern routes. The northern route passed through the Tian Shan connected important trading stations like Hami, Turfan, Kuqa, Kashgar.

The southern route crossed through Miran, Khotan, Yarkand and Kashgar where it again met with the northern route. The route from Kashgar was again divided into three different directions; the first one was crossing through Termez and Balkh, second to Ferghana and Merv, and the third running going towards Aral and further to Black Sea through Caspian. The southern Silk Road was connected by the internal land routes of India. An internal land route connected Bactria, an important trading station on the southern Silk Road with Barygaza (Bharuch) in Gujarat after passing through Taxila.

Map 3: Silk Road connected with the internal routes of India (source: Singh 2009: 411)
The important trading and cultural centres located on the trade routes between China and Rome are as follows:

Bamiyan

In ancient Chinese records, Bamiyan is mentioned as Fan-yen-na. It is a valley surrounded by the high snowy cliffs of the Hindu Kush and was an important region which connected Kabul with Balkh. Grew as a significant Buddhist centre, it was one of the favourite destinations for the Indian monks going to Central Asia and China. The examples of Buddhist temples and colossal sculptures of Buddha have confirmed the popularity of Buddhism in the region (fig. 3.1). A number of manuscripts have also been found here which are written in scripts of Kushana and Gupta periods (Bagchi 1950: 11). The place attracted large number of traders from different quarters for trading their goods.

Balkh

The Bamiyan is connected with Bactria (present day Balkh) in the north. The Chinese name of Balkh is Fo-ho and in India, it was called Balhika. The culture of Balkh was amalgamation of Hellenic and Indian customs and beliefs. The Buddhism flourished in Balkh during the 1st century BCE or even before that which continued to be the main religion till 7th century CE. It was the place from where the Silk Road bifurcated into two. One route to the north passes through Sogdiana, Tashkent, T’ien-shan and then heading towards Uch-Turfan. The other route was short and thus frequently used by the Buddhist missionaries and traders travelling to China. It passed through the region of Tokharians located near Badakhshan and known as T’u-ho-lo in Chinese. The route then reached Kashgar after crossing the difficult terrain of Pamir ranges.
Kashgar

It was one of the most important trading stations located on the Silk Road. In Chinese, the place was known as Shu-le. Later it was called as Kie-sha. The place was also a hub of Buddhist monasteries where monks from all over used to come. By mid 7th century CE, more than one hundred monasteries were established in the region. The road after Kashgar was again divided into two, amongst which one was moving along the Tarim basin in south and the other in north crossing through Turfan (Po-lu-kia), and Kuci (K’iu-tse or Kiu-yi), present day Kuchar. The Buddhism was also transmitted to China through this route. On the other hand, the important centres of trade were also located on the southern side which were Kashgar itself followed by Yarkand, Khotan, and Niya (Bagchi 1950: 12). These centres were also influenced by the Buddhism.

Khotan

It was a prominent trade centre of Central Asia. In Chinese, it was known as Yu-t’ien. It is believed that the region was developed by the Indian from northwest India as early as during the Mauryan period under the reign of Asoka (Bagchi 1950: 13-14).

Kuci

The place was equally important as its neighbouring region like Khotan in terms of transmission of Buddhism and expansion of trade. It was visited by the people from different regions. This place was especially popular amongst the Chinese monks who mentioned that the monks of Kuci could fluently interact in Sanskrit. It was a place for Buddhist studies and was favoured by the Buddhist monks who wanted to live in a peaceful area to practice meditation. The grottos found in the region were used as caves of Ajanta and Bamiyan (Bagchi 1950: 15).

Turfan

Situated on the northern route, Turfan was closer to the Chinese territory and had colours of China’s traditions and customs. The region also showed amalgamation of different cultures developed in Central Asia (Bagchi 1950: 15).
Dunhuang/ Tun-huang

This place was one of the biggest Buddhist settlements (fig. 3.2) where large number of grottos for the use of monks was constructed between the 5th and 8th century CE. In Chinese, these grottos were known as Ts’ien-fo-tong.

![Dunhuang: Buddhist temple (source: www.picture-newsletter.com)](image)

Historically, the use of Silk Road continued till medieval times but it started declining when the maritime route progressed. It cannot be confirmed that when exactly its use was completely vanished.

China and Northeast India

The land route from China to northeast India was long, stretching thousands of kilometres and passing through big and small cities. It was also believed that the land route connected Yunnan in China with the northeast region of India and further West Bengal via Myanmar.

The area of West Bengal and northeast India were specifically rich in a number of resources including copper, gold, iron, etc. The extensive archaeological findings in the Gangetic area prove that it was a hub for international and domestic trade where the traders from Yunnan in China must have reached using the route of Myanmar, Assam and West Bengal. The discovery of Roman coins and evidence of inscriptions in Kharoshti and Brahmi scripts (1st-5th century CE) found from the area of lower
Bengal indicate that the trade was carried out through the land as well as sea routes simultaneously (Ray 1995: 186-187).

In the 2nd century CE, about 20 Buddhist monks came from China to India by the overland route through Myanmar. Sri Gupta, the early Gupta ruler, built a temple for them which became famous as the ‘China temple’. But it was in ruins when a Buddhist monk, Yijing visited here, although the discovery of stone tablets with Chinese inscriptions at Bodhgaya gives its record of erection (Beal 1881: 552-572).

Another important historical record of the medieval time in this context is Si-Yu-Ki, written by the famous Chinese monk, Xuanzang, who visited the court of king Bhaskaravarman in Kamarupa in about 640 CE. He gave the earliest reference of Assam-Myanmar route from China in his account and explained that a major land route connected Pundravardhana (now north Bengal) with Kamarupa (now Assam), which allowed him to travel to India in the 7th century CE. Xuanzang further stated that from Kamarupa the route moved to the direction of south China via upper Myanmar (Bushell 1905: 23-24). In Myanmar itself the two important trading centres were Bhamo and Myitkina which linked with India in the west and China in the east. This Assam-Myanmar route to China has also been mentioned in an 8th century Chinese work of Kia-tan (Bagchi 1951: 18).

The routes between China and northeast India were in use throughout the T’ang period as noticed in another Chinese record of Jia Dan. In 801 CE, Jia Dan, zaixiang or prime minister in the T’ang court presented a book to the emperor in which the information on foreign trade exchanges of China were recorded. The book is missing at present but his information on the seven routes linking China with the barbarians of four directions was compiled in a 10th century’s book, Xin Tang Shu (New History of the T’ang dynasty). Out of the seven links, the sixth link mentioned connections between Annam and Tiantzhu (India). According to Jia Dan’s record, there were two routes from Tonkin to Dali out of which one was through the river and other was through land. At Dali, the two routes again met which extends further to Myanmar and then India (Luce 1924: 138-205).
Commute in Brahmaputra valley was possible through land and riverine routes passing through Sadiya, Kapili (present day Nowgong), Pragjyotishpura (Guwahati), Hadapeswara (Tezpur) and Davaka (Barua 1969: 28). Guwahati was the main centre of trade being a powerful kingdom of Kamarupa. It was also well connected with the Myanmar in the east from where goods were exported to the regions of north India (Changli 1991: 7-17; Ray 1995: 188). The route from Guwahati to Pagan in Myanmar was in use for a long time as mentioned by an Indian Buddhist monk, Buddhagupta in his biography dated to 16th century CE (Tucci 1931: 683-701).

This route was even continued to be used as late as in the 19th century by Assamese merchants, writes N.K. Basu, “Assamese merchants went to Yunnan in China by the line of trade through the Sadiya, Bisa and across the Patkai range of mountains” (Basu 1970: 190). R.B. Pemberton recorded that Manipuri traders in the early 19th century had trade relations with the Burmese through Kabow valley and contacted Chinese traders from Yunnan, who bartered wax and ivory, in return for their silk (Pemberton 1979: 33).

There were natural barriers between the routes from Yunnan to Assam via Myanmar though the traders made their way through a number of passes. The area was studied by John Deyell who while examining the trade of gold from Yunnan and Myanmar into Bengal between 12th and 15th century CE mentioned about three land routes.

“The first went from Yung Chang to Momien, crossed the Irrawaddy to Mogaung, went north through the Hukong Valley, across passes in the Patkai Range, to the upper Brahmaputra Valley. This was the eastern frontier of Kamarupa. The second route followed the Shweli River, crossing the Irrawaddy at Tagaung, followed the Chindin River north and crossed via the Imole pass to Manipur. This was the eastern approach to Bangala via Tripura. The third route embarked on the Irrawaddy at Tagaung, Ava or Pagan, and then passed from Prome over the Arakan Range to Arakan. A variation of this went directly from Pagan to Arakan via the Aeng pass. This gave access to either a land route northwards to Chatisgaon, or embarkation on the coastal trading boats to Bengal” (Deyell 1994: 128).
The route used between China and Bengal during the medieval period was also discussed by another scholar namely Nisar Ahmad.

Ahmad mentioned that, “Three routes lead from Assam to Bengal: one by water and the other two by land. The Brahmaputra River was an excellent waterway for the movement of vessels. One of the two land routes, one was from Tezpur (Darang district of Assam) to Lakhnauti (the capital of Bengal Sultans) through the districts of Kamrupa and Goalpara, in the north of Brahmaputra; the second route was in the south of the Brahmaputra River. When crossing the river, it joined the first path. The second path seems to be favoured by merchants who were interested in sea-trade, since it connected with the river ports of Bengal. Moreover, Lakhnauti had the advantage of a line of connection with Tibet via Kamrupa. Likewise, there also was a route from Kashmir to China (Yunnan) via Koh-i-kara-chal (Kumaon Mountains), Patkai Hills, and the upper districts of Burma, which was joined by a passage from Lakhnauti. Furthermore, Nisar points out that some portions of the three routes (Lakhnauti-Tezpur, Lakhnauti-Tibet and Lakhnauti-China) were probably common” (Ahmad 1996: 176-177).

The references show that the route between China and northeast India was used prolifically as early as from 1st-2nd century CE to 16th-17th century CE. These routes were occasionally used after the development of maritime route.

Mode of Transportation

Primarily double-humped camels and horses were used throughout the Silk Road in Central Asia. The speed of camels was about 4 km per hour which made the journey on the Silk Road longer and gruelling (Bentley 1993: 29-30). Generally the journey was performed in caravans that sometimes included dogs, and also donkeys, carts for carrying goods. The discovery of double-humped Bactrian camel figurines from the T’ang period tombs in China has confirmed that camels were important for Chinese. The interesting thing to notice is that these camel figurines were made carrying sacks of merchandise and cooking equipments which represents how actually the goods would have carried by the traders travelling on the Silk Road (Finlay 2010: 100).
Innumerable varieties of goods were transported via the Silk Road which included silk, precious gems, exotic animals, and porcelain. The point of discussion is the terrain of Central Asia was tough and tricky to cross and the fragile ceramics like Chinese porcelain must have increased the difficulty of traders. The remains of porcelain in large numbers have been discovered along the Silk Road but the questions arises how they have been carried through this long route.

The procedure for the safe transportation of porcelain through the land route has been described by Li Zhiyan (fig. 3.3) and briefly mentioned by John Carswell (2000: 76). He mentioned that first a porcelain piece was kept in a container which was filled with sand, earth, soya beans and wheat. The mixture was sprinkled with water which turned into a rock hard mass. It was then transported and after reaching its destination, again water was sprinkled on it which loosens up the mixture. The pot was then taken out safely. The idea was to keep the pot still in a container with proper packing material so as to avoid abrasions and other damages during the journey. The procedure is somewhat similar to the present day procedure of transporting an art object. The only difference is the packing material.

Another interesting example of transporting of Chinese porcelain is noticed in an album’s painting. The date and origin of this painting is a debatable issue. According to John Carswell’s interpretation, it depicts a wedding procession with the exhausted bride and her dowry.
Carswell described the scene in the painting (fig. 3.4) as -

"The particular painting shows a cart full of blue and white being hauled across a rocky landscape by a donkey. The carter clutches the donkey's saddle and casts an anxious look backwards at his precarious load. In front is a second donkey, ridden by a lady in a state of fatigue who is supported by a young man attempting to prevent her from falling off her mount. There are various other figures, including two who exchange covered metal bowls, one of them being dressed in European costume. A winsome lady also casts an apprehensive glance over her shoulder at the loaded cart. Two more ladies and a man with a topknot are further spectators, while a white-bearded old man tipples from a spouted ewer in a state of happy inebriation. Crouching behind rocky outcrops are grotesque figures making faces at each other and a black man proffers a covered blue and white box to a young woman who is preoccupied watching two more men peering over the wall of an enclosure at a ger-like domed structure" (Carswell 2000: 74).

This coloured painting shows human figures of different origins like Mongol and Chinese. The background shows that they all are travelling in the desert which could be Gobi with volcanic rocks as interpreted by Carswell. But the thing to notice is blue-and-white porcelain guan jars in globular shapes being carried in an open cart. The designs on them like dragons, lotus sprays suggest dates of 14th-15th century CE.
Another noteworthy point is carrying porcelain in an open cart. According to Carswell, “the idea of an open cart is lunatic, and can only be explained by the exigencies of the artist who was obliged to depict the valuable cargo” (Carswell 2000: 76). Therefore, it could be merely a perception of the painter because it is impossible to carry porcelain like this in an open cart that too on such a long and exhausting journey. On the Silk Road, mostly the porcelain pieces were carried by the caravans of double-humped camels in closed containers as explained by Li Zhiyan. The depiction of carrying containers or boxes on the back of camels is noticed in a map from the Catalan Atlas dated 1380 CE. It clearly shows that the Bactrian camels laden with square and cylindrical containers are walking in front of the caravan followed by the merchants on foot and some on horses (fig. 3.5). The legend on this map reads as: this caravan has left the Empire of Sareas to go to Cathay (Carswell 2000: 77).

![Caravan of Bactrian camels loaded with square boxes and other goods](source: Carswell 2000: 77)

### Maritime Trade

Beginning of maritime contacts between the India and China is not known as the evidence regarding the direct sailings from China to India and vice versa are scanty. Initially Chinese traders and officials might have travelled on Arab ships to reach South Asia in order to exchange their goods. The period in which such early voyages would have started is still unknown.
In case of India, the maritime route from the western coast to the Persian Gulf was already known from proto-historic times. But there were no maritime interactions as such during that period between Indian and Chinese ports. By the 1st century BCE, the Indian ports became important transshipment centres between China, Persian Gulf and the Mediterranean Sea. The goods like Chinese silk used to reach India via the land route and from there it was shipped to Rome through Barygaza (present day Bharuch). Similarly goods from Rome like glass and coral reached China through India. But there was no direct sailing between Indian and Chinese ports during this time (Sen 2011: 42). The land route was the only way of export.

The literary records mentioned a different story as far as the question of earliest maritime links between India and China are concerned. It was said that the Indians themselves in their own ships sailed to China. Early literary records like Milindapanha (Questions of Milinda) written in 1st century CE mentions the sailing of Indian cargo ships all the way to China (Wheatley 1961: 181; Colless 1980: 162). Another literary reference comes from a Chinese record Hanshu (the History of Former Han Dynasty) which mentions that during the reign of emperor Ho (89-105 CE) envoys from T'ien-chu (India) made several visits to China using the land route but during 159 and 161 CE, the Indian embassies reached China via sea route (Colless 1980: 162). The place from which these embassies, from India, came is however not known. But in the absence of confirmed evidence, it is still difficult to state that whether India and China had any maritime links during the 1st-2nd century CE or not.

The Arabs in 1st century CE started using the sea route in the Indian Ocean for reaching as far as China. The Chinese sources have mentioned about the ships of foreign origin which were used for transporting goods and carrying people from the ports of China to overseas (Sen 2011: 48). Therefore, the ships which used to reach China during this period must be of Arab or Southeast Asian origin not Indian.

The Chinese account of a 3rd century CE writer Wan Zhen explains about the foreign ships coming on the Chinese coast, one of which namely bo was 45.72 m (150 feet) long and had a capacity of carrying 700 people and 260 tons of cargo (Manguin 1980: 253-269). Another type of ship was Kunlun which could transport about 1000
people along with the cargo. The mention about the construction of Kunlun ship is noticed in an 8th century Buddhist work. It reads as -

"With the fibrous bark of coconut [tree] (yezi), they make cords which bind the parts of the ship together. And they caulk them with a paste made of gelan (olive?), stopping up the openings and preventing the water from coming in. Nails and clamps are not used, for fear that the heating of the iron would give rise to fires.

[The ships] are constructed by assembling [several] thickness of side-planks, for the boards are thin and they fear that they would break. [The ships] are several tricents long, and divided fore and aft into three sections. Sails are hoisted to make use of the wind, and [indeed, these ships] cannot be propelled by the strength of men [alone]" (Needham 1971: 458-459).

As per the technical details of the Kunlun ship, Pierre-Yves Manguin (1996: 190) has identified it as a stitched-plank vessel and mentioned that it was of Southeast Asian origin. Therefore, the Chinese traders and travellers were performing sea journeys to reach overseas on the ships of foreign origin.

Also, there is no information on the manufacturing of Chinese ships during the 1st-2nd century CE. The Chinese people knew about the construction of boats but those were not perfect for the sea voyages. These boats were used in the rivers and canals and in inland waters. Thus, there is no evidence of the use of Chinese ships in this period.

One of the earliest evidence of the use of maritime route between India and China comes in the account of Fa Xian, a Chinese monk. He was the first Chinese monk who visited India in 4th century CE. He commenced his journey from Cha’ang-an (present day X’ian) and reached India through the Silk Road. But for going back to China, Fa Xian reached at the port of Tamralipti and boarded a large mercantile ship which was going to Southeast Asia via Sri Lanka (Legge 1965: 108). From Southeast Asia, he continued his journey on another ship to reach China. It shows that even during the 5th century CE, the maritime links between India and China were not direct as this journey was difficult and long. The trade used to pass through different hands and the cargoes
were transhipped at the entrepôts in between before reaching its final destination.

By the 6th century CE, the merchants from India and Sri Lanka frequently started travelling in the Bay of Bengal, Malacca, Java Sea, and often to China either in their own ships or in Southeast Asian ships (Ray 2003: 2). Occasional maritime journeys were performed till China during this period. Most of the ships used to sail up to Southeast Asia after which one had to board another ship to reach China. There was lesser number of ships sailing between Southeast Asia and China as the route was not safer.

In 8th century CE, a south Indian monk, Vajrabodhi boarded one of the 35 ships of Persian origin which sailed from Sri Lanka to China. But out of all the ships only the one on which the monk was travelling could complete the journey to China. Rest of the ships sank on the way. Recently one of those Persian or Arab-Indian ship has been excavated in Southeast Asia. The shipwreck dated to 9th century CE was discovered near Indonesia at Belitung. After studying the construction of the shipwreck, which was sawn and stitched edge-to-edge with ropes passing through the planks, it has been suggested that the ship was “an Indian ship supplying the Middle East, or an Indian-built ship owned by Arabs” (Flecker 2001: 353). It was also found that the ship was carrying ceramics and other objects of Chinese origin (Guy 2001-02: 13-27).

The trade scenario of China changed in 9th century CE when T’ang rulers formally started supporting maritime activities (Sen 2011: 42). In the late 10th and early 11th century CE, the visits of Chinese traders to overseas were regulated by the Chinese government. Permits were given before departing China for a sea journey from the Bureau of Maritime Trade (Sen 2011: 53). This situation changed during the Song period as many restrictions on Chinese traders were banished. As a result the maritime trade in China became active and fruitful.

The constructions of Chinese junks were also started during the Song period. At first, the Chinese took inspiration for constructing ships from the Southeast Asian types but in later periods they developed their own techniques of ship building. According to Manguin, these early Chinese ships were of hybrid form showing an amalgamation of
Chinese and Southeast Asia styles.

“[T]heir planks are always fastened by iron nails to the frames, but they may also be dowelled together by wooden pegs; some have a single, axial rudder while others have quarter rudders; their holds are separated by bulkheads, but these are not structurally essential and kept watertight as in the Chinese tradition (all have waterways with limber holes hollowed out of the bulkheads); all their hulls are V-shaped and have a keel that plays an essential structural role, a striking difference with the traditional flat-bottomed, keel-less (Northern) Chinese build” (Manguin 1993: 271).

During the Song period, the ports in south China also developed largely because of the manufacturing of Chinese ships. The trade through the maritime route (which is now also known as Spice Route) advanced as export of goods on ships especially ceramics was regarded more profitable and safer (Medley 1976: 103). The ships from China used to sail through the Malacca Straits and then entering into the Indian Ocean from where the ceramics were marketed in Sri Lanka, India, Persian Gulf, and the East African Coast (Kerr and Wood 2004: 728). The ports of India including Calicut, Cochin, Quilon, etc. located on the Malabar Coast became *entrepôts* for the ships coming from China and other places.

By 11th century CE, three major dynasties were interacting with each other for trade purposes, the Song of China, the Chola of south India and the Fatamids of Egypt. It was a great time for import and export of goods as the maritime route was progressing. In this period, the trade of Chinese porcelain increased and its demand soared as never before. According to an anonymous Chinese text written in 12th century CE, the ships were carrying cargoes consisting of potteries which were packed carefully, the pieces of small size were packed in the large pieces and even a minute gap was not left (Yu 1975: 31). During the 12th century CE, Chinese junks of large sizes developed which were more than 30 m in length, had nailed hulls, multiple masts and carrying capacity of about of over 100 tons (Sen 2011: 51).

The Chola kingdom played a vital role in the development of maritime trade networks between India and China. The merchant guilds and envoys from the Chola court were
sent to China on regular basis. In reciprocity, the Chinese merchants also visited India carrying exotic gifts and tributes. The Chola kingdom was in favour of establishing strong trade networks with the overseas therefore, they welcomed every merchant enthusiastically. The popular ports during the Chola period were *Kuli* (Calicut) and *Ko-chih* (Cochin) where Chinese traders frequently visited for trading their goods.

The coast of India became especially popular during the Song and Yuan periods as the Chinese merchants, travellers and diplomats frequently visited India for economical, religious and political reasons (Sen 2011: 42). Several goods from India to China and vice versa were exchanged at this time. The goods exported to China from South Asia during the 11th-12th century CE included cotton fabrics, spices especially pepper, drugs, jewels, ivory, rhinoceros horns, amber, coral, pearls, tortoise shells, semiprecious and precious stones, aromatic products, etc. The sale of items like fabrics, spices and drugs was open to all in China but the other exotic products were kept on sale only for the licensed vendors (Ray 2003: 241).

The Chinese officials and merchants preferred trade activities through maritime route after 11th century CE. They actively participated in the commercial and diplomatic exchanges between the 11th and 15th century CE. Chinese junks laden with varieties of goods, accompanied by traders, officials, etc. were frequently sent to Southeast Asia, South Asia, and Africa. The representatives from the China visited the ports in South Asia to develop diplomatic alliances and sometimes even interfere in local political issues.

During the late 13th century CE, the ports of South Asia became significant for Chinese because of the frequent visits of embassies and traders (Sen 2011: 42). The Chinese junks started coming directly in the Indian Ocean during this period. The Chinese merchants and diplomats frequently used to sail in the regions of South Asia to promote trade and propagate their rule (Sen 2011: 41).

The main reason behind the prolific use of maritime route by the Chinese in the late 13th century was huge Chinese junks. The description of Chinese junks has been noticed in the travel account of Marco Polo, a Venetian traveller. He saw Chinese
junks at Quanzhou, China in 1292 CE and mentioned that these ships having a capacity of 1,860 tons, were built with fir and pine wood, nailed hulls, and had multiple masts and cabins (Wake 1997: 56-57). He also mentioned that the Chinese junks from China used to come on the Malabar Coast.

Another important reference of Chinese junks has been found in a 12th century Chinese work, *Ling Wai Dai Da* (Information on What is Beyond the passes). It mentioned, “the ocean going junks of the Song period were ‘several times’ larger than the general run of home-water vessels of 10,000 hu” (Wake 1997: 59). According to Wake, the unit *hu* according to Song standard was equal to 66.4 litres which means the carrying capacity of 1400 tons.

The flourished interactions between India and China were also mentioned by Ibn Battuta, a Moroccan traveller, who visited India in 14th century CE. He saw thirteen Chinese ships anchored at the harbour of Calicut and mentioned that, “On the sea of China travelling is done in Chinese ships only” (Gibb 1994: 813).

In the 14th-15th century CE the maritime interactions between India and China became extensive and sight of Chinese junks in Indian waters became common. Large varieties of goods were imported from China to the ports of Bengal and Orissa which included silks, satins, cloves, nutmegs, blue-and-white porcelain, drums, and lutes (Rockhill 1915:436,445).

With the beginning of 15th century CE, Chinese emperors of Ming dynasty sent special missions and expeditions to overseas with an ultimate aim to capture trading markets (map 4). The best example of this period is the seven maritime expeditions of Zheng He carried out between 1405 and 1431 CE. The first six expeditions were sent by the Ming emperor of Yung-lo reign (1403-1424 CE) and the last was sent during the Xuande reign (1426-1435 CE) (map 5). The prime aim of Zheng He’s expeditions was to increase networking with the countries of Southeast Asia and South Asia. The details of these voyages exist in an account written by Ma Huan dated to 1433 CE (Mills 1970: 10-18).

1405-07: Fleet comprised 317 ships including 62 treasure ships; and total 27,870 men
Map 4: Ming contacts with overseas including India (source: Ebrey 1996:196)

Map 5: Maritime route taken by Zheng He (source: Carswell 2000: 101)
which included officers, soldiers of flag-army, braves, civilians, buyers and clerks. Countries visited were Java, Semudera (Lho Seumawe), Lambri (Atjeh), Sri Lanka, and Calicut.

1407-09: Fleet comprised 249 ships and unknown number of troops. Countries visited were Thailand, Java, Aru, Lambri, Coimbatore (Koyampadi), Kayal, Cochin, and Calicut. An inscription was erected in Calicut to commemorate the intercourse between India and China.

1409-11: Fleet comprised 48 ships and 30,000 government troops. Countries visited were Champa, Java, Malacca, Semudera, Ceylon, Quilon, Cochin, and Calicut. At Galle in Ceylon (Sri Lanka), Zheng He erected a trilingual inscription written in Chinese, Tamil and Persian. It commemorates offerings by Zheng He to a Buddhist temple in Ceylon.

1413-15: Fleet comprised 63 ships, 28,560 men. Countries visited were Champa, Kelantan, Pahang, Java, San Fo-ch’I (Palembang), Malacca, Aru, Semudra, Lambri, Ceylon, Kayal, Maldives, Cochin, Calicut, and Hormuz. This was the first voyage when Zheng He travelled further than India. It was the first voyage of Ma Huan under Zheng He’s supervision.

1417-19: Mission of this expedition was to escort back ambassadors to China. Countries visited were Champa, Pahang, Java, Palembang, Malacca, Semudera, Lambri, Ceylon, Maldives, Cochin, Calicut, Sha-li-wan-ni (Cannanore ?), Hormuz, La-sa (La’sa near Mukalla), Aden, Mogadishu, Brava, and Malindi.

1421-22: Fleet comprised 41 ships, unknown number of men. Countries visited were Malacca, Aru, Semudera, Lambri, Coimbatore, Kayal, Ceylon, Maldives, Cochin, Calicut, Hormuz, Dhufar, La’sa, Aden, Mogadishu, and Brava. On return to China, they visited Thailand.

1431-33: Fleet comprised more than 100 large ships, 27,550 men including officers, group-leaders, interpreters, accountants, doctors, iron-anchor mechanics, sailors,
boatmen, etc. Countries visited were Champa, Java, Palembang, Malacca, Semudera, Ceylon, Calicut, and Hormuz. Emissaries were also sent to Thailand, Aru, Nagur, Lide, Lambri, Nicobar Islands, Bengal, Quilon, Cochin, Coimbatore, Maldives, Dhufar, La’sa, Aden, Mecca, Mogadishu, and Brava.

Several goods from China were carried for trading and tribute purposes by Zheng He. Amongst these the mention of Chinese blue-and-white porcelain has also been noticed in the list of goods which was traded at Champa, Java, Sri Lanka, Calicut and Cochin (Carswell 2000: 88-89). Although the archaeological remains of the porcelain from these mentioned places are of no use. Most of the remains did not match with the porcelain of Yung-lo and Xuande reigns. According to Carswell (2000: 89), “For Champa (central Vietnam) and Java nothing is known that can be directly linked to the expeditions”.

The trade through the maritime route continued till the Ch’ing period. The only difference was that after the Ming period, the sea route was captured by the Europeans particularly Portuguese. The emergence of Portuguese in China broke the monopoly of Arabs. The credit for disclosing the long maritime route to Portuguese goes to Arab merchants.

In 1498 CE, Vasco da Gama reached India when an Arab namely Ahmad ibn Majid explained him about a direct maritime route to India using the monsoon winds (Tibbetts 1971: 9-11). Soon after reaching India, the Portuguese started establishing their colonies at the Malabar Coast. In 1510 CE, Affonso de Albuquerque, the Viceroy of India, established Portuguese colony at Goa. Prior to this, in 1509 CE, Portuguese reached Malacca and encountered Chinese junks. In 1511 CE, Malacca became an establishment of Portuguese. The reason behind establishing a Portuguese base at Malacca was to gain direct trade links with Chinese who were exporting exotic goods like silk and porcelain in exchange of pepper. Therefore, on one hand, the Portuguese were getting pepper from south India and on the other hand exchanging it with Chinese products. By 1531 CE, Portuguese managed to reach as far as Manila in Philippines and in 1542 they for the first time reached in Japan. Soon in 1557 CE, Portuguese arrived in Macau and established their colonies. This way the Portuguese captured the
complete route for reaching China from Lisbon via Malacca. It took about 8 to 10 months to reach Malacca from Lisbon through maritime route and further more 20 days to reach on China coast (Carswell 2000: 128).

In India, with the arrival of Portuguese, the port of Cambay declined and Goa arose. The archaeological evidence of more than 20,000 pieces of Chinese porcelain at Goa has proved that the movement of Chinese products increased significantly. The trade of Chinese porcelain itself was profitable which Portuguese captured to gain maximum profits. With increasing interest on Chinese porcelain by the Portuguese, the Chinese potters even produced Portuguese style of designs on porcelain such as coat of arms, inscriptions in Portuguese especially religious phrases - ‘Hail Mary, Full of Grace’, etc. (Carswell 2000: 128-129). After Portuguese, other Europeans who came to capture the maritime route were Dutch, Spanish, etc.

Routes

Modern scholars have named this maritime route as ‘Spice Route’ because it was largely used for the export of spices. But this export was not restricted to spices only.

The maritime route between India and China passed through the Sri Lanka and the region of Southeast Asia. In general, the route used to began in India either from the ports of the Malabar or the Coromandel Coasts. Then all the ships used to passes through Sri Lanka and then moved towards Southeast Asia passing through the Nicobar Islands. The countries in Southeast Asia falling on the maritime route were Sumatra, Malay Peninsula, and Thailand. For trade purposes, ships sometimes also reached Java and as far as the Maldives. In China, most of the ships arrived at the port of Guangzhou.

The precise information about this long route can be determined from some Chinese and Indian literatures like *Fo-kwô-ki* of Fa Xian, and *Ying-yai Sheng-lan* of Ma Huan.
Fa Xian in his book *Fo-kwō-ki* has mentioned about the maritime route through which he reached back to China (map 6). He started his journey by embarking a large mercantile ship from Tamalipti/Tamralipti (Tamluk), a seaport located in present West Bengal. The ship sailed southwest and after 14 days arrived at Singhala (Sri Lanka). Fa Xian mentioned that the distance between Tamralipti and Sri Lanka was about 700 *yojana*. In Sri Lanka, he stayed for two years and then boarded another large ship for reaching to China. He faced unfavourable winds on the way which made the journey difficult. After sailing for more than 90 days, the ship reached Java-dvipa (Java). Fa Xian stayed there for 5 months and boarded another ship to reach Kwang-chow. The vessel soon caught in the storm and remained in sea for more than 70 days. After sailing for 12 more days, the ship reached at the shore of mount Lao (south of Shan-tung) which was located on the borders of Ch’ang-kwang (?) in China. After reaching Ch’ang-kwang, Fa Xian travelled by land to reach Ch’ang-an (X’ian) (Legge 1965: 108, 118-124). Fa Xian mentions about an important port namely Kwang-chow in China. The port has been identified with the Guangzhou (Canton) located at Guangdong province.

In 11th century CE, a number of envoys were exchanged between the Chola kingdom and Song Empire. Information about the route used by the first Chola envoy (1015 CE) to reach China is mentioned in a number of Chinese records according to which their expedition commenced from Na-wu-tan-shan (Nagapattinam ?) located on Coromandel Coast. Then they passed through So-li his-lan (Ceylon ?), Chan-bin (Jambi ? in Sumatra), I-mo-lo-li (near the banks of river Irrawaddy in Burma ?), Ku-lo (in Java ?), Chia-pa (in the Langkawi Islands), Kou-pu-lao (Cham ?),
Chou-pao-lung (near river Salat Sembilian in Singapore?), San-fo-Ch’I (Srivijaya), Man-shan (Muntok in the Banka islands), Tien-chu shan (Pulo Aor in the Malaya Peninsula), Pin-t’ou-lang shan (Panduranga in southern Vietnam), Yang shan (Pulo Gambir in southeast Vietnam) and Chiu-hsing shan (near Hong Kong). This mission took 1,150 days to reach Ch’uan-chou/ Guangzhou (Canton). It shows that Chola were well-informed about this route to reach China (Sen 1995: 27-28).

The account of Zheng He voyages namely Ying-yai Sheng-lan written by Ma Huan is significant in terms of maritime route between India and China (Mills 1970: 8-10). Ma Huan mentioned that the expeditions were started from Nanking, then the ships sailed towards Yangtze to Liu chia chiang located on the mouth of T’ai ts’ang river (at present Liu creek), then they moved towards T’ai p’ing in Ch’ang lo (near the mouth of Min river in Fukien province). The fleet waited at Fukien for favourable winds and then moved towards Qui Nhon in Champa, then Surabaja in Java, Palembang in Sumatra, Sri Lanka and finally to Calicut. This was the usual route used by the traders for travelling from India to China and vice versa. Sometimes, the present day Thailand and Singapore were also included in the itineraries.

Ports and Trading Stations in China

The south coast of China was a neglected part before the 7th century CE. It started developing only after the rule of T’ang emperors that too in 9th century CE. Although the ports in south China existed prior to that but they were not in prolific use. These ports gained special attention during the southern Song period between 10th-12th century CE and continued to prospered further in the Yuan, Ming and Ch’ing periods. Some of the important ports in China were Guangzhou, Quanzhou, etc.

Guangzhou - The port of Panyu or Guangzhou (present day Canton) is located in Guangdong province in south China. This port flourished during the Han period as mentioned by Sima Qian (1st century BCE) in a Chinese text Shi ji (Records of the Grand Historian). The mention of Guangzhou has also been found in the account of a court historian, Bangu (32-92 CE) of Han period, who mentions that the place gained popularity as foreign goods were exchanged here (Sen 2011: 43). Guangzhou had a
trade markets also which was visited by the traders from India, Parthia and Rome (Sen 2011: 43). It is believed that it was the first port where trade superintendents (shiposi/shiboshi) were appointed by the T’ang rulers (Clark 1982: 143; Sen 2011: 46).

Quanzhou - This port is located in Fujian province of south China. The earliest evidence of this port as a place for overseas trade has been found in a poem of 8th century CE, ‘On Sending the Estimable Mr. Li to Quanzhou’ composed by a Chinese poet, Bao Ho. He described Quanzhou as a flourishing port and mentioned that ‘people of many lands mingle in the city’s markets’ (Clark 1982: 143). During the mid Song period, it was developed significantly as traders from all over started pouring-in. At the same time, it became the second popular port of China after Guangzhou. A Chinese poem of 11th century composed by Xie Fu has clearly pictured the situation of Quanzhou. The translation of the lines describing the port of Quanzhou has been mentioned by Clark as “the coast of the prefecture is divided among many foreign peoples, and the Jin River is clogged with hundreds of ships from the South” (Yudi jisheng 130: 11 a as referred by Clark 1982: 143).

Another significant mention of this port is found in an 11th century funerary inscription of Du Shun who was the judicial inspector of Quanzhou. Its translation is mentioned by Clark which reads as - “Foreign merchants come to Quanzhou every year, and each merchant brings with him as many as twenty vessels” (Chou Buzhi, Jilei ji 62: 479-483 as referred by Clark 1982: 183). All these significant records suggest that Quanzhou had gained high popularity during the 11th century CE.

Ports and Trading Stations in India

The ports in India can be classified into two groups on the basis of their locations, the on the Malabar Coast, and Coromandel Coast. The important ports located on the Malabar Coast were Kollam (Quilon), Calicut, Cochin, etc. There were a large number of ports on Coromandel Coast among them significant ones were Nagapattinam, Periyapattinam, Kayal, etc. Other than these two groups, some noteworthy ports have also been evidenced on the coast of Orissa also. Likewise, some ports in West Bengal, Andhra Pradesh and Maharashtra were also used by the Chinese merchants. In
Coromandel Coast - Ports located on the Coromandel Coast have played a significant role in India and China maritime trade contacts especially during the 7th century CE onwards. These interactions between the ports located on the Coromandel Coast and Chinese ports strengthened during the mid-Chola period i.e. 11th century CE. The main port of this period was Nagapattinam from where Chola envoys departed on ships to reach China. The Chinese traders also frequently visited this port. Wang Dayuan, writer of the book *Daoyi zhilüe* who visited India in 14th century CE, reported about a pagoda constructed by the Chinese traders at Nagapattinam. He wrote -

"surrounded by trees and rocks, is a pagoda constructed with mud bricks. [It is] several meters high. Chinese characters written [on it] say: Construction completed in the eighth lunar month of the third year of Xianchun [reign era] (1267). It is said, people from China visited the place that year and wrote [the characters] on the stone and engraved them. Up to the present time, they have not faded." (Sen 2011: 55).

In 17th century, a European traveller, Manuel Barradas visited Nagapattinam and reported the same pagoda. He mentioned -

"believed by these people [of Nagapattinam] to have been made by.....[the Chinese] when they were lords of the commerce of India: it is of brick, and despite been [sic] neither inhabited nor repaired for many centuries still is in its majesty, and in perfect condition" (Guy 1993-94: 291).

This pagoda even stood during the 19th century CE when its sketch and description was prepared by Walter Elliot, a British officer (Elliot 1878: 224). However, the structure no longer exists.

Another important port on Coromandel Coast is Periyapattinam which has been identified as Dabadan mentioned in a 14th century Chinese text, *Daoyi zhilüe*. It has also been identified as Fattan as described by Ibn Battuta who have also mentioned in
his account that this port was the most important for the Sultan of Madurai (Karashima 2009: 227).

An important port closer to Periyapattinam was Kayal. It flourished during the Pandyan period but it was not as popular as Periyapattinam and Nagapattinam.

Other noteworthy ports located on the Coromandel Coast are Alagankulam, Arikamedu, Mayilappur and Pulicut. These were important in terms of India and China trade interactions. Among these, the excavations at Alagankulam, a site located on river Vaigai in district Ramanathapuram have revealed large quantity of roman amphora, arretine ware and celadon ware (Sridhar 2005). The material remains suggest that the port had trade contacts with the Mediterranean world and also in later periods with China. Likewise, Arikamedu located on river Ariyankuppam was also important in terms of India and China trade relations. It was a flourishing port during the 10th-11th century CE and later in the 15th-17th century CE. During 10th-11th century CE, the maritime trade between the Chola kingdom and Song dynasty was prolific. A large number of celadon wares from the excavation at Arikamedu have confirmed the interactions between India and China. The findings of blue-and-white porcelain datable to mid-Ming period of China indicate that the port may have remained active till the 17th century CE.

Malabar Coast - The ports on Malabar Coast emerged as the prime destination for the Chinese traders during the late Yuan and early Ming period (13th century CE). Though ships used to reach on this coast prior to Yuan period also but the trade activities increased in the 13th century CE and later. The trade activities enhanced the use of the ports on Malabar Coast. One of the significant ports on the Malabar Coast was Kollam (Quilon) which acts as a transit port for the Chinese traders sailing towards the Persian Gulf. Marco Polo has mentioned in his account about the Kollam stating that it was a significant transhipment port and a major production centre of pepper and indigo. The mention of Kollam is also found in the travel account of Ibn Battuta. He wrote that Kollam was one of the nearest Malabar towns where majority of Chinese merchants came (Gibb 1994: 817).
The position of Kollam as an important port changed when the two other important ports, Calicut and Cochin developed during the mid 14th century CE. Ibn Battuta called Calicut as ‘one of the chief ports’ on Malabar, visited by the people from China, Java, Sri Lanka, the Maldives, etc. He also mentioned that Chinese junks often used to enter in the port of Calicut. The Chinese sources mentioned Calicut with different names, Ku-li/ Ku-lix, His-yang Ku-li, and Ku-li-fo. Amongst these Ku-li was the most used name in Chinese sources and also found in a text of Yuan period, Tao-i Chih-lueh (Ptak 1989: 83). Wang Dayuan mentioned that Calicut was one of the most important maritime centres of trade and located close to Sri Lanka. The mention of Calicut has also been found in the Zheng He’s account of his seven voyages during the 15th century CE. Zheng He visited Calicut seven times during all the voyages as mentioned by Ma Huan who accompanied him in his fourth voyage (Sen 2011: 60). In the account of Ma Huan, Calicut is called as “the great country of the Western Ocean” which shows that it was an important port (Mills 1970: 137). Throughout the 14th and 15th century CE, Calicut remained an important port mainly for the export of pepper as well.

Orissa - The ports located on the coast of Orissa played significant role in the trade activities with the regions of Southeast Asia and China. Orissa, earlier known as Kalinga was popular since the Mauryan period. The mention of the ships of Kialing (Kalinga) has been noticed in the Chinese text, Chu-fan-chih written by Chau Ju-kua in 13th century CE. The mention of Orissa has also been found in Si-yu-ki, written by Xuanzang, a Chinese monk. Xuanzang has names port towns of Orissa in his account and mentioned that Che-li-ta-lo was a large port where traders used to halt after long sea voyages (Pradhan et al. 2000: 475). According to Haraprasad Ray (2003: 149), the Che-li-ta-lo may be identified as Lake Chilika. The identification of Che-li-ta-lo is however still not clear. Some noteworthy ports located on the coast of Orissa are Khalkatapatna, Manikapatna, Ganjam, etc. The evidence of Chinese porcelain and Chinese coins from all these ports confirms the links between India and China.

Other popular ports in India in terms of India and China trade interactions were Tamluk in West Bengal; Motupalli and Kottapatnam located on the Andhra Coast; Pulicut and Sadras on the Coromandel Coast; Pattanam and Kottapatnam on the Malabar Coast; Chaul in Maharashtra, etc.
Shipwrecks

The ships of Arab, South and Southeast Asian origin dominated the maritime lanes between China and the ports in the Indian Ocean. The earliest evidence of a ship of Chinese origin comes from a wreck excavated at Quanzhou Bay which was sunk after 1271 CE (Wake 1997: 51-81). On the basis of the excavated material it was discovered that thirteen compartments of the shipwreck were laden with a variety of goods including spices mainly black pepper, frankincense, ambergris, sandalwood, tortoise shells, textiles and glassware. These items were exported from Southeast Asia and Africa (Sen 2011: 52). Thereafter, finding of more than fifteen shipwrecks in the waters of China and Southeast Asia showcased ample of maritime activities between China, Southeast Asia, South Asia and as far as Africa.

The shipwrecks like Belitung (9th century CE), Tanjung Simpang Mengayau (10th century CE), Turiang (1370 CE), Longquan (1400 CE), Xuande (1540 CE), Wanli (1630 CE), etc. discovered near Indonesia, Philippines, Malaysia and China are some important ones. Many of these ships were on the way to India or coming through India for trading goods collected from China, Southeast Asia, Persia, etc. They were also carrying Chinese porcelain of different varieties in huge quantities for export purposes. Some of these significant shipwrecks are discussed here -

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Shipwreck</th>
<th>Period</th>
<th>Location</th>
<th>Type of Chinese Ceramics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Belitung</td>
<td>9th cent. CE</td>
<td>Indonesian</td>
<td>Changsha ware</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Yueh ware</td>
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<td>White ware</td>
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<td></td>
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<td></td>
<td></td>
<td>Under-glaze blue-and-white</td>
</tr>
<tr>
<td>2</td>
<td>Intan</td>
<td>10th cent. CE</td>
<td>Indonesian</td>
<td>Brown ware</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Celadon ware</td>
</tr>
<tr>
<td>3</td>
<td>Tanjung Simpang Mengayau</td>
<td>10th-13th cent. CE</td>
<td>Malaysian</td>
<td>Qingbai porcelain</td>
</tr>
<tr>
<td>4</td>
<td>Java sea</td>
<td>13th cent. CE</td>
<td>Java Sea</td>
<td>Qingbai porcelain</td>
</tr>
<tr>
<td>5</td>
<td>Turiang</td>
<td>14th cent. CE</td>
<td>Thailand</td>
<td>Celadon ware</td>
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<td>Monochromes</td>
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<td>Type of Chinese Ceramics</td>
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<tr>
<td>6</td>
<td>Longquan</td>
<td>15th cent. CE</td>
<td>Malaysia</td>
<td>Celadon ware white ware</td>
</tr>
<tr>
<td>7</td>
<td>Royal Nanhai</td>
<td>15th cent. CE</td>
<td>Malaysia</td>
<td>Celadon ware Blue-and-white porcelain</td>
</tr>
<tr>
<td>8</td>
<td>Bakau</td>
<td>15th cent. CE</td>
<td>Indonesia</td>
<td>Longquan celadon Qingbai glazed ware</td>
</tr>
<tr>
<td>9</td>
<td>Xuande</td>
<td>15th cent. CE</td>
<td>Malaysia</td>
<td>Blue-and-white porcelain</td>
</tr>
<tr>
<td>10</td>
<td>Lena</td>
<td>15th/16th cent. CE</td>
<td>Philippines</td>
<td>Blue-and-white porcelain</td>
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<td>11</td>
<td>Wanli</td>
<td>17th cent. CE</td>
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<td>12</td>
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<td>Hatcher</td>
<td>17th cent. CE</td>
<td>South China</td>
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<td>Diana</td>
<td>19th cent. CE</td>
<td>Malaysia</td>
<td>Blue-and-white porcelain Monochrome porcelain</td>
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<tr>
<td>15</td>
<td>Desaru</td>
<td>19th cent. CE</td>
<td>Malaysia</td>
<td>Yixing wares Blue-and-white porcelain</td>
</tr>
</tbody>
</table>

*Belitung* (9th century CE)

The *Belitung* shipwreck was discovered off Indonesian island of Belitung between Sumatra and Borneo in Java Sea (Flecker 2001: 335-354; 2007: 244-246). The wreck site was noticed in 1997 by the local fishermen who recovered a number of bowls and ewers of Changsha kilns in fish trawls. On the basis of preliminary information obtained from the fishermen, the site was thoroughly surveyed and exploration was conducted after which the excavation work on the site commenced with the approval of Indonesian government in 1998. This shipwreck was found lying 17 m deep under the visible water.

During the first season the excavation was conducted by a German company (Flecker 2007: 244). Work on the site continued from September to October 1998 and after that it resumed in 1999 under the direction of Michael Flecker.

The *Belitung* shipwreck, also popularly known as *Tang* or *Batu Hitam* was not found in a good condition. Only the hull part of the ship had survived that too in fragmented
condition. The study of the ship revealed that it was constructed using the technique of stitching of hull planks i.e. without the use of wooden dowels or iron buckles which suggested that the ship could be manufactured in Arab or India (Flecker 2007: 245). The analysis of the wood obtained from the ship cleared the doubts and confirmed that the ship has an Arab or Indian origin. Being found in Indonesian waters and loaded with Chinese cargo, the ship is the first archaeological example of direct sailing between India and China (fig. 3.6) (Flecker 2001: 335-334). In 2010, a study on a lump of resin found on the Belitung shipwreck was done. It revealed that the presence of dammar resin in the vicinity of the wreck could support the assumption that this vessel might have re-stitched in Asia using some local materials (Burger et al 2010: 386). It was also found that some amount of dammar resin found on the shipwreck could have been loaded for small repairs in the vessel.

Around 60,000 artefacts were recovered from the shipwreck which included Chinese ceramics especially Changsha ceramics of T’ang period; dishes of gold in different shapes and having floral decorations; gilt-silver objects like covered boxes, spoons, dishes with three legs, handled flasks; cast-iron cauldrons; grindstones, etc. (Flecker 2001: 339-342). Some Chinese coins with inscription k’ai-yuan t’ung-bao dated between 618-626 CE were also found on the shipwreck (Flecker 2007: 244-245).

The ceramic findings included bowls, ewers and jars from Changsha kilns of Hunan province in China (fig. 3.7-3.8); under-glazed blue-and-white; other Chinese wares; and three turquoise glazed jars. The Changsha ceramics were prepared during the late T’ang period. Other varieties of Chinese wares included green splashed ware from Henan, Yueh wares from Zhejiang province, northern white ware and the three exclusive examples of under-glazed blue-and-white (Flecker 2007: 245).

The most interesting example in case of ceramics found on the shipwreck is under-glazed blue-and-white pottery. The three intact pieces of this variety are the earliest examples found anywhere. It clearly suggests that blue-and-white was begun to manufacture in China during the T’ang period.
fig. 3.6 Belitung wreck: Route of the ship

fig. 3.7 Belitung wreck: Bowls
(source: Flecker 2001a: 337)

fig. 3.8 Belitung wreck: Jar
(source: Flecker 2001a: 342)
The *Intan* shipwreck was found between Bangka strait and Jakarta in the vicinity of Indonesia (Flecker 2004: 1-4). The site of this shipwreck was noticed in 1996 by a number of local fishermen who reported about the finding of ceramics in their fishing trawls. After getting this information, the site was surveyed thoroughly and excavation on the shipwreck site was carried out in 1997 under the direction of Michael Flecker (2007: 247).

The hull of the ship is almost vanished. Only a few chunks of wood were collected which might have been part of the dowel holes. The remains of dowels suggest that the hull planks were edge-joined (Flecker 2004: 2). It revealed that the ship was lashed-lug vessel of Indonesian origin and was sailing from Palembang to a port in eastern or central Java. It sank in the Java Sea. Analysis of the material loaded on ship suggested its date as early to mid 10th century CE.

The shipwreck was loaded with a variety of goods which include 137 Chinese coins (Flecker 2001a: 148-151), scrap copper, objects of tin and bronze, silver ingots, mirrors from China and other utilitarian items. The ship also included Hindu and Buddhist sculptures in large quantity such as bronze sculptures of standing Buddha, bodhisattva, buffalo head, lion with loop, Vyala, lotus bud, Amrita vessel, Vajra sceptre, Ghanta, Stupika moulds, etc. (Flecker 2007: 247-255). Four gold coins, gold rings, and inscribed copper plate have also been recovered.

More than 8000 intact pieces of ceramics of Chinese, Thai and Middle-Eastern origin were recovered. The Thai wares include *kendi* and bottles, pottery of the Middle-east included bluish-green glazed jars. The Chinese ceramics included brown ware with and without handles, celadon ware bowls and covered boxes and Yueh white ware (fig. 3.9).
**Tanjung Simpang Mengayau** (960–1279 CE)

The site of *Tanjung Simpang Mengayau* shipwreck lies in Malaysian water. This shipwreck was lying around 400 m from shore near Kudat, which is in the north of Sabah. It was discovered in 2003 by Nanhai Marine Archaeology Sdn. Bhd (Sauffi 2007: 210). This is the oldest example of a loaded shipwreck in Malaysia till date.

The excavation on the site was started in 2004 by the joint team of the Maritime Archaeological Museum, Department of Sabah Museum and Malaysia Sabah University under the direction of Sten Sjostrand. During the excavation, the site was found to be disturbed and looted. The excavation continued for another season in 2005.

The shipwreck is in damaged condition because of extensive looting. A few pieces of timber were noticed on the site which was collected for examination and identification of the origin of ship. Analysis done on the wood showed that it belongs to pine or fir which suggested the shipwreck is of Chinese origin. The further study on the ship revealed that it might have been travelling from China to Brunei passing through the Philippines Island.

More than 300 artefacts were discovered from the site. It includes 61 bronze gongs, 76 copper discs and pieces of wood (http://www.maritimeasia.ws/). The gongs having slightly curved surface were measuring 41 to 43 cm. Other than these artefacts, the ceramic assemblage includes Chinese porcelain of different varieties.

The noteworthy varieties of Chinese ceramics include brown-glazed *kendi* (fig. 3.10) and teapots; Qingbai ewers, boxes, etc. The ceramics found are datable to Song period particularly of 10th-11th century CE.
Java Sea (13th century CE)

The Java Sea wreck site was found between the Bangka Island and Jakarta on the western side of Java Sea (Flecker 2003: 388-404). It was accidentally discovered when local fishermen observed some birds hovering above the group of fishes exactly over the wreck site. In amazement, the fishermen started fishing around the area and noticed iron concretion which had remains of green glazed dish. After knowing about the discovery of such antique ceramics, the local divers started looting the wreck. Soon, the illegal looting was caught by the Indonesian Navy and it was decided to salvage the wreck site.

The excavation on the Java Sea wreck was conducted in 1996 by Pacific Sea Resources, a private company licensed by the Indonesian government (Flecker 2003: 288). The shipwreck was found buried at the depth of 26 m. Preliminary studies suggested that it might have sunk because of the storm and the location of the ship showed that it was bound for Java.

The date of the ship was calibrated 1265 to 1310 CE on the basis of the analysis of aromatic resin sample (Flecker 2003: 288). The hull was found in a rotten condition (fig. 3.11) and only a few fragmented pieces of wood were left on the sea bed.

For dating the wreck, two wood samples were taken out, out of which the first one obtained from hull was identified as Parastemon urophyllum (mandailas) which is found in regions of west Irian Jaya, Papua New Guina, the Solomon Islands, Myanmar, Indonesia and Malay Peninsula (Flecker 2003: 392). The other sample from
the rectangular beam belonged to *Alstonia scholaris* i.e. cheesewood or milkwood. This type of wood is found in a wide area starting from the tropical region of Africa and up to the Pacific. Most parts of this shipwreck have been destroyed but the survival of two small wood fragments with dowels helped in finding out its origin. The ship was a Southeast Asian lashed-lug vessel but mainly loaded with Chinese cargo.

About 12,000 intact artefacts were recovered from the shipwreck. It includes ivory, aromatic resin, bronze sculptures, mirrors, sharpening stones, ivory, copper, tin ingots, scales of weights and bars, etc. The cargo consisting iron material like bundles of bars had turned into a concrete form which helped in preserving some part of the hull.

The shipwreck yielded large quantity of ceramics. Around 8,000 pieces of ceramics were recovered. It included hundred of fine paste *kendi* and bottles of Thai origin; dark olive green glazed wares; brown glazed jars, covered jars and boxes of Qingbai wares with moulded designs (fig. 3.12), etc. (Flecker 2003: 397-400).

*Turiang* (14th century CE)

*Turiang*, a 14th century Chinese ship was discovered in 1998 about 100 nautical miles from the coast in the waters of south China (Sjostrand 2002). The wreck site of Turiang was noticed by some local fishermen who caught ceramic and metal pieces in their fish trawling nets. This led to the investigation of the site by a number of archaeologists. The marked area was found heavily fished and disturbed. The side-sonar surveys were conducted on the site which helped in locating the shipwreck. It was found laying on the seabed at a depth of 42 m. Followed by initial exploratory surveys this shipwreck site was documented and salvaged.
Its name was taken from a sign identifying the kilns at Old Sukhothai in Thailand. This shipwreck was assigned a period of Yuan dynasty and it may possibly sank before 1328 CE as no evidence of Chinese blue-and-white porcelain is noticed on the shipwreck. It has been assumed that the ship was on her way to southwest Borneo as its location is found to be outside the ‘Western Sailing Route’ according to Wubeizhi chart. This chart was prepared in 14th century which had information on nautical data for the sailings towards Malacca, Sumatra and Java (Brown and Sjostrand 2000: 12).

The hull of the shipwreck (fig. 3.13) was in deteriorated condition therefore limited investigations were done on the site. Its remain revealed timber having square holes with reddish stains measuring 14 mm which suggest that iron nails might have been used for the construction (fig. 3.14). The remains of nails could not be found though. The ship was made of soft wood as found during the surveys. The analysis of the wood obtained from a section of bulkhead revealed that being a pinewood it might belong to China. Bottom planks were also examined which revealed a width between 220 to 240 mm and thickness of 60 mm (Brown and Sjostrand 2000: 12).
of sphalerite or zinc blende, stones used for sharpening knives; eggs inside a storage jar; elephant tusks and ceramics (Brown and Sjostrand 2000: 39).

The ceramics of Thai, Vietnamese and Chinese types are found in good quantity. It included Thai Sukhothai wares covered with brown, green and black glazes; Vietnamese under-glaze decorated wares; and Chinese monochrome, green glazed, brown and black glazed, celadon ware (Brown and Sjostrand 2000: 25-36). The Thai Sukhothai wares had gritty gray clay, specks of white quartz impurities, covering of cream white slip on which the painted design of fish, flowers, etc. were made. Thai Sukhothai wares were also found having thick glaze in brown and green on bowls, jars and dishes. The Vietnamese under-glaze decorated wares were found having floral motifs in the interior and stylised lines on the exterior.

The Chinese ceramics found included brown glazed wares in the shapes of small jars with two handles on the shoulder, bowls, big storage jars. The celadon ware found was having a thick shiny glaze of brownish-green colour, and decorations of lotus buds and geometrical patterns using the incised and moulded techniques (fig. 3.15). The common shapes noticed in celadon were covered storage jars, dishes with moulded and straight rims, etc.

**Longquan (1430-1450 CE)**

*Longquan* shipwreck was discovered in 1996 in Malaysian waters (Brown and Sjostrand 2000: 11). This trading ship was excavated immediately after its discovery by Nanhai Marine Archaeology Sdn. Bhd., a private company under the direction of Sten Sjostrand. The wreck was found buried on the seabed at the depth of 63 m.

The preliminary studies suggested that the ship was sank somewhere during the late 14th or early 15th century CE. The shipwreck was thoroughly documented through measurements. Its estimated length was found to be 30 m and width of measure about
It makes Longquan wreck as one of the largest found wrecks in South China Sea so far. The examination of the shipwreck suggested that its hull planks and bulkheads were joined using the wooden dowels (Flecker 2007a: 80).

This Ming period ship was found laden with piles of ceramics. As many as 1,00,000 ceramics of different varieties were noticed on this wreck site. Mainly ceramics of Chinese and Thai origin were found which included Thai Sawankholak celadon; celadon from Longquan kilns of China (fig. 3.16); white glazed porcellaneous bowls from south China; and Sukhothai under-glaze wares decorated with black designs. Based on some initial surveys, the estimated proportions of Chinese celadon found on this shipwreck is 40%. The other varieties - Sukhothai comprise 20% and Sawankholok ware about 40% (Brown and Sjostrand 2000: 47).

**Royal Nanhai (15th century CE)**

Royal Nanhai shipwreck was discovered 40 nautical miles from the coast of Malaysia. Excavation was conducted by a private company, Nanhai Marine Archaeology Sdn. Bhd. in 1995 (Brown and Sjostrand 2000: 52). The ship has been fully excavated till 2008. It was found buried at the depth of 46 m.

The hulk of this shipwreck was edge-joined with bulkhead planks using the wooden dowels. It shows a hybrid form combining Chinese and Southeast Asian techniques of shipbuilding. Also, the ship had two mast-steps. The examination of the wood sample revealed its date as 1460 CE. It was also found that the ship was built from tropical hardwood (*Hopea sp.*) (Flecker 2007a: 80). The analysis on the wood confirmed its Southeast Asian origin. The ship measured 28 m in length, 7-8 m in width across the beam and had 18 bulkheads (Taha 2006: 62).
The finds from the site includes a bronze seal in the shape of elephant, a lacquer box, handle of an ivory sword, iron ingots, etc. The vessel was a cargo ship which was carrying ceramic in large quantity. The ceramic findings included 20,973 pieces of pottery in total. The ceramic types were large number of wares from Sisatchanali kiln in Thailand; black glazed jars; seven pieces of Chinese blue-and-white porcelain (fig. 3.17); celadon; Vietnamese blue-and-white porcelain; stoneware; and ring handled bottles. The porcelain recovered from the site belongs to Jingtai/ Tienshun reign between 1450-1464 CE of the Interregnum period in Chinese history (Sjostrand 2000: 52-52).

**Bakau (15th century CE)**

*Bakau* shipwreck was found in 1999 off the island of Bakau located on the west of Karimata Strait in Indonesia (Flecker 2001b: 221-230). The wreck was found laying 24 m deep just parallel to a 3 m coral outcrop. The site was accidently noticed by local fishermen after which the initial surveys were carried out by the archaeologists. While excavating, the site was found to be looted. Studies done on the shipwreck revealed that it shows the style of Chinese shipbuilding technique.

This ship was found having a flat bottom, bulkheads, hull strakes were joint using nails of iron. The hull remains measured 22.7 m in length and 6.5 m width. The structure of this shipwreck is intact because of the aerobic growth. The strakes, total twenty-eight in number were found but the bulkheads are not surviving. The wood samples were taken out from a strake which was identified with *Pinus khaysia* (hard pine), a native to regions of India, Myanmar and south China (Flecker 2001b: 224). The features of the shipwreck flat bottom, edge-joining of hull strakes with nails, etc. are some of the typical features of the Chinese ships.
The antiquities found from the wreck site included small bronze guns, undecorated bronze gongs, copper objects like fish-hook, spearhead, hanging oil lamp, bowls, dishes, spoons, a bell, scale weights, coin of Yung-lo period, etc. (Flecker 2001b: 228).

The ceramic finds included large storage jars of Thai origin and those were as high as 90 cm (fig. 3.18) (Flecker 2001b: 225). These jars had everted rim and four lug handles. Some were even decorated with encircling bands, and Bodhi leaf designs. Other than this Chinese brown glazed storage jars with four handles; earthenware with paddled designs from southeast Asia; kendi having fine ware; and Sukhothai dishes with black designs on white slipped base were also recovered (Flecker 2001b: 226). Vietnamese wares having under-glaze blue or black designs were also scantly found. Significant ceramic finds of Chinese origin were Longquan celadon and Qingbai glazed wares. The Longquan celadon wares were found in the shapes of bowls and dishes and having impressed decorations. The Qingbai glazed wares were noticed in the shapes of small bowls with radial ribs and un-glazed base (Flecker 2001b: 227).

**Xuande (15th century CE)**

The *Xuande* shipwreck was discovered in 1996 off the coast of Johar and Pahang in Peninsular Malaysia. This shipwreck site was accidently located by a group of local fishermen who found some antique ceramics that included Sawankhalok bottles and small ovoid-shaped jar. On the basis of preliminary information, the site was extensively examined by the archaeologists using the side-scan sonar. It helped in revealing the location of the shipwreck which was excavated in 1996 under the direction of Sten Sjostrand (1997: 7-14). The ship was found buried at the depth of 52 m.

The shipwreck was named on the basis of ware found on it marked with the dynastic or reign marks of emperor Xuande. Though thorough probing was done within the
vicinity of the site but no part of the vessel or wood could be located. The surveys using the sub-bottom profiler which penetrates 60 m deep into the seabed were also conducted but it could not locate any ship.

The site although revealed antiquities and ceramics in large number. Some of the noteworthy antiquities include Chinese coins of Song period, sandstone pedestal, pyramidal shaped lead ingots, two breach-loaded bronze cannons, small bronze tubes, copper wires, and a medium sized storage jar filled with cobalt blue glass beads.

The ceramic findings included Chinese blue-and-white porcelain of Ming period bearing Xuande reign mark (1426-1435) (fig. 3.19); Sawankhalok and Sukhothai under-glaze black wares from Thailand; Vietnamese wares. The Chinese blue-and-white porcelain variety included dishes, bowls, kendi, ewer, and jars bearing motifs like kylin, a mythical animal; dog of Buddha; phoenix; dragons, floral patterns, deer; horses, etc. (Sjostrand 1997: 8-11).

*Lena (15th/16th century CE)*

*Lena* shipwreck was discovered near the west coast of the Philippines. The site of this wreck was noticed by some local fishermen who recovered pieces of ceramics during in fishing nets. After the report of finding of antique ceramics, the preliminary surveys were carried out followed by an excavation.

While excavating it was found that this ship was coming from China and was going towards Philippines to supply ceramics in local markets (Carswell 2000: 183).

Significant findings from the wreck site included lead and iron ingots, bronze cannons, bracelets, copper vessels, woks, needles, lacquer, spices and ivory. The shipwreck included ceramics of Chinese, Vietnamese, Thai and Burmese origin in large
quantities. The Chinese blue-and-white porcelain found on the wreck was dated to late

*Wanli (1630 CE)*

*Wanli* shipwreck was found off coast of Terengganu, Kuala Dungun in Malaysia. It was discovered in 2003 by Nanhai Marine Archaeology Sdn. Bhd. The excavation on the site was started in 2004 by the Department of Museum and Antiquities, Malaysia and Nanhai Marine Archaeology Sdn. Bhd under the direction of Sten Sjostrand (Sauffi 2007: 210-211). The pre-disturbance surveys were carried out on the wreck site. It revealed that the ship was lying on the seabed at the depth of 40 m. The shipwreck got its name because of the huge quantity of *Kraakporselein* found on it.

The shipwreck was found in damaged condition because of the attacks from the rival merchant ship or sea pirates. The condition of ceramics and other antiquities suggested that the ship’s room having gun powder might have exploded before sinking.

Some of the portions of the ship have survived. Documentation of the shipwreck was done and measurements were taken. The available measurement of the ship keel was found 15.5 m in length which originally may have been around 21 m (Sauffi 2007: 11). The other remains like square nails used for the edge-joining of the hull and ribs were also found. This technique of ship-building was used by the Chinese. Analysis on the wood of the ship was also done which revealed five different wood types. The results of this study suggested that the ship might have been manufactured in the Philippines or in India. The ship also had a second layer of wooden planks that belonged to China.

The ship was loaded with the large quantity of intact and semi-intact pieces of porcelain (fig. 3.20). Most of the ceramic wares found on the ship were *Kraakporselein*, a variety of Chinese blue-and-white porcelain, which was originated during the reign of Wan-li. The number of this ceramic assemblage was roughly above one lakh.

![Fig. 3.20 Wanli wreck: Porcelain recovered from the site (source: http://tradewindtreasures.com.my/file/divershards.jpg)](http://tradewindtreasures.com.my/file/divershards.jpg)
Kraakporselain was a significant porcelain ware which got popularity in Europe. It include a variety of decorated motifs such as animals especially deer; plants and trees like bamboo, peach; insects like butterfly, crickets, bees; flowers like camellia, chrysanthemum, rose, peony; Buddhist symbols like conch; and birds like crane, stork, etc. On the basis of the cargo it was said that the ship might have sank in about 1630 or 1640 CE.

Sunchi Reef (17th century CE)

Sunchi Reef shipwreck site was discovered in 1997 off Sunchi Reef between Marmagao and Cubo headlands in Goa. The survey on the site was carried out in 1997-1999 by the National Institute of Oceanography, Dona Paula, Goa (Sila 2001: 355-367; Sila 2006: 127-136). There is no archival record on this shipwreck. The wreck site could be located using circular search surveys.

According to the evidence found on the seabed and other material remains it was found that the ship belonged to Portuguese period and might had a wooden hull. The wreck appears to be salvaged as it lies in shallow water. The most probable cause of its wrecking is accidental grounding on the shallow submerged rocks in the region (Sila 2001: 365).

The findings from the wreck includes cast-iron guns, a shot, pieces of glass bottles, a rudder, dressed granite stone blocks, etc. The ceramic assemblage included Martaban wares having moulded, applied and incised decorations and Chinese blue-and-white porcelain of Ming period (fig. 3.21). The decorative motifs found on the porcelain suggest that they belong to Wan-li reign. Similar porcelain finds are also discovered during the excavation at the St. Augustine Church.
**Hatcher (1643-1646 CE)**

The shipwreck was named after its excavator Michael Hatcher. It was wrecked near a reef somewhere in the south China Sea back in 1646 CE, two years after the decline of Ming dynasty (Carswell 2000: 184). The ship was sailing towards west.

It was found loaded with over 23,000 pieces of Chinese porcelain. The ceramic findings included Chinese blue-and-white porcelain of early Kangxi period of Ch’ing dynasty (17th century CE) (Carswell 2000: 184-185).

**Diana (1817 CE)**

*Diana* was discovered in 1993 near the straits of Malacca in West Malaysia. Its excavation was carried out by Dorian Ball of Historical Salvors and Malaysia Marine Department jointly with the Department of Museums and Antiquities, Malaysia (Sauffi 2007: 211). This shipwreck was found buried at the depth of 34 m.

The ship belonged to the British East India Company. It was manufactured of wood and measured 30 long in length. This ship was set for sail to India in early 19th century CE. Studies have showed that it was coming from China and was on the way to present day Kolkata or Chennai.

The findings from the shipwreck include glass bottles, small earthenware figurines and ceramics. The ship was laden with Chinese porcelain. Around 24,000 intact pieces of blue-and-white porcelain and monochrome porcelain were recovered from the site.

**Desaru (1830 CE)**

*Desaru* shipwreck, a 19th century ship was discovered in 2001 near the Desaru beach located on the east coast of Johar in Malaysia (Sauffi 2007: 209). The shipwreck was named after the nearby village Desaru. The information regarding the location of the shipwreck site was obtained from the local fishermen who occasionally used to recover pottery pieces in their fishing trawls. On the basis of this information of fishermen and
GPS surveys, the study of the site was done and the shipwreck was noticed by Sten Sjostrand, Director Manager, Nanhai Marine Archaeology Sdn. Bhd. The wreck was studied thoroughly and completely excavated in 2003. The shipwreck was found buried at the depth of around 20 m.

There is no literary or historical record available about this wrecked ship which could suggest its original name. The examination of this ship suggested that it was having wooden compartments which were used for stacking the cargo. The wreck was found laying flat on the seabed and found in a well-preserved condition (fig. 3.22). The lower part of its hull which includes portions of bulkheads, a few compartments, other associated frames and the mast step are found preserved. The hull planks were found edge-joined with the bulkhead planks. The small compartments found on the wreck were divided by longitude partitions of wooden frames (fig. 3.23). Fastening of the ship was done using the square nails. The nails have been corroded but red stains around the square holes confirm their use on the hull and bulkhead planks. The ship was measured about 34 m in length and 8 m in width. (detail obtained from www.mingwrecks.com/desaru.html).

![fig. 3.22 Desaru wreck: Plan of the hull](source: www.mingwrecks.com/desaru.html)

![fig. 3.23 Desaru wreck: Wooden partition](source: www.mingwrecks.com/desaru.html)
Wooden samples were also analysed which have been identified with the *Cedus* (cedar) and *Pinus* (pine). The sample taken out from the longitudinal mast indicated that the wood belonged to *Dialitum* (keranji), trees of which are found in Malaysia, Thailand, India and China. The ship was found to be Chinese in origin as for building the masts the Chinese shipbuilders used flexible timber like pine or cedar.

Over 70,000 noteworthy artefacts were recovered from this wreck. The findings from the shipwreck include anchor, iron cannon, coins, etc. The ship was laden with ceramic cargo. It includes Chinese ceramics like the Yixing wares manufactured in Jingsu province, stoneware and blue-and-white porcelain of Jingdezhen kiln in huge quantity (fig. 3.24). About 25,000 spoons of blue-and-white porcelain were found on the site (Taha 2006: 63).

A shipwreck can provide plenty of information. Objects found lying under the sea will be preserved *in-situ* position for a long time as compared to the finds discovered on the land. Moreover sometimes it is easy to get intact objects in hoards under water. The only hazard is looting which destroys a wreck site.

The information obtained from these shipwreck suggest that these fifteen ships were carrying a variety of goods from China and Southeast Asia specifically ceramics. Most of these ships were on their way to India for trading goods after collecting from different regions. Besides the above mentioned wrecks there are a few more important wrecks in the Indian Ocean on which Chinese ceramics have been found. Most of them are deteriorated and looted condition.
Trade Items

Goods of different types were exchanged between India and China using both the land as well as maritime route. The items exchanged includes spices, cotton, pearls, aromatics, exotic animals, precious and semiprecious stones, metals, religious items, gold, silver, ceramics, etc. The details of some important trade items are as below:

India to China

India remained a favourite destination for the Chinese, Arab and Southeast Asian merchants for buying and selling a variety of goods. Innumerable products of Indian origin and those obtained from other countries were exported to Far East. There is a long list of export items from India which included gold, cotton, pearls, coral, aromatic oils, amber, spices, etc. The goods were traded through the Silk Road as well as the Spice Route. The literary accounts, Chu-fan-chi (13th century CE), Daoyi zhi lue (14th century CE), Hsin-Ch'a Sheng-Lan (15th century CE), etc. gives ample of information on the trade of popular items from India to China.

Initially the products exported from India to China were mainly luxury items of high value. Throughout the Qin (221-206 BCE) and Han (202 BCE-260 CE) periods, the demand of exotic products from India such as ivory, rhinoceros horns, pearls, incense, semiprecious stones, etc. remained high in China. During the late Han period, the Kushana were ruling over India who tried to control the trade activities. During this period, products like corals, pearls and glass were exported to China (Liu 1988: 53-63).

During the T'ang period, the demand of the products of daily use started increasing along with exotic goods. The medicinal drugs and texts were also exported to China from India (Schaefer 1985: 182). According to Chau Ju-kua in Chu-fan-chi (A Description of Barbarous People) (1225 CE), the country of India was rich in the export of lion, leopards, rhinoceros, elephants, tortoise-shell, gold, copper, iron, gold embroidered rugs, etc. A Chinese traveller, Wang Dayuan in Daoyi zhi lue (1349 CE) mentioned that several products were exported from different regions of India to China which were bibu (bairami/bafta), muslin and kingfishers’ feathers from Bengal;
beeswax, fine cotton and kingfisher’s feathers from Orissa; and spices like pepper from the Malabar Coast.

The maritime interactions between India and China became more prosperous during the 14th-15th century CE, as a result the export of items from India also increased. The mention of the goods exported from different regions of India has been found in the account of Fei Xin titled *Hsin-Ch’ a Sheng-Lan* (1436 CE). Fei Xin was a Chinese official who accompanied Zheng He in his voyages. Overall, the export of a variety of goods from India to China continued for a long time. Some of the Indian products exported to China are as mentioned:

*Hu-tsiao* (pepper) was one such product which remained popular in China from the Song period. During this time, it was brought from Java. During the Yuan and later in Ming and Ch’ing periods, the demand of Indian pepper climbed and its export to China soared. The pepper which was earlier used for medicinal purposes only became a necessary condiment and its use as a preservative increased (Hirth and Rockhill 1911: 223; Wake 1997: 74). The demand of pepper even increased more as the trade activities expanded further.

In late 13th century CE, as mentioned in the account of Marco Polo, “more than 1000 tons of pepper a year passed through the market at Hangzhou alone” (Yule and Cordier 1994: 204). It shows that the pepper as a spice became necessity for Chinese and it was the most extensive imported items in China (Wake 1997: 74). The pepper in large quantities was directly exported from the Malabar Coast to Quanzhou port of China. The Chinese junks were used to sail to India after every two years (Ravenstein 1898: 131). The ships sailed back only after loading the two years supply of pepper from the ports of Kollam (Quilon) and Calicut (Wake 1997: 78). The import of pepper in China further increased to 4000 tons per year in the 16th century CE (Graberg 1846: 87).

The pearls were also exported in good quantity to China. The pearl fishery at Colchoi (Korkai) and Argalu (Uryaiur) on Coromandel Coast was popular during the 1st century CE. These two places are also mentioned in *Periplus Maris Erythraei*. Ceylon
(Sri Lanka) was another popular place for pearl fishery.

The China was famous for silk and likewise India for cotton. Places in India such as Kaveripattinam and Madurai were famous for manufacturing of cotton fabrics. The production of cotton at Kaveripattinam has been recorded in the text *Silappadhikaram* (Dikshitar 1938: 92). It was a native product of the Chola kingdom and was extensively exported to China during the 10th-11th century CE. The white muslins described as cloth with fine texture in a T'ang period text were also exported to China. Chao Ju-kua has mentioned about import of white cotton manufactured in Malwa (Hirth and Rockhill 1911: 98). Its trade was done through the Silk Road.

Exclusive swords embellished with jewels were a prized possession in China. These were largely made in an Indian state, P'eng-chieh-lo, which has been identified by Hirth and Rockhill (1911: 102) as the kingdom of Balhara i.e. Bangala (West Bengal). Wheatley (1959: 52) has identified P'eng-chieh-lo as Bangalore and its capital Ch'a-na-chi as Kannada/ Karnata.

*Ch'ien-nien tsao* (*Phoenix dactylifera* or date palms) were a favourite imported item in China. It was exported from the Coromandel Coast but was planted in the regions of Multan and Sind (Wheatley 1959: 53). Sometimes the land route was also used for its export. Other than India, the dates from Basra and Oman were also exported to China.

Amongst the aromatics product, *Mu-hsiang* (putchuck) of high quality was exported from an unidentified region of northwest India. Wheatley mentioned that Putchuck (*Saussurea lappa*) is a Himalayan herb with a root which smelled like musk and orris. He also mentioned that the herb may have been obtained from the region of Kashmir where it grew in the moist slopes of hills (Wheatley 1959: 62).

*Yeh tző* or the fruit of Coconut was one of the major export items from India. It was a product of Quilon and Coromandel. The Chau-Ju kua has mentioned it for the preparation of toddy (wine) on the Malabar Coast along with the regions of Southeast Asia especially in Borneo (Wheatley 1959: 214-215).
T’an hsiang (sandalwood) is obtained from a small evergreen tree mainly found in South Asia and East Java. Chao Ju-kua mentioned sandalwood as Chan-t’an derived from the Sanskrit word candana (Wheatley 1959: 67). China used to import sandalwood in abundance from the regions of Nan-p’i (Malabar Coast) and also from the Java (Hirth and Rockhill 1911: 77, 89). The sandalwood was classified on its appearance; a reddish-brown coloured variety was probably obtained from India (Wheatley 1959: 67).

Pin-lang (areca palm or betel-nut palm) was a seed majorly grown in Southeast Asia and Coromandel Coast (Wheatley 1959: 67). It was imported in China because of some medicinal properties. It was also used for making wine in Java and Sumatra (Hirth and Rockhill 1911: 213-214).

His chio (rhinoceros horns) was an important export items from the region of the Southeast Asia especially in Annam, Malay Peninsula, and Java. In India, the Rhinoceros was found from Assam in the northeast to Punjab in the west, in the regions of south India and in Sikkim and Nepal (Wheatley 1959: 77). Therefore, Rhinoceros horns were also exported from the Southeast Asia as well as India.

Hu-p’o (amber) is a fossilised resin of the conifer tree generally found in yellowish-red or brown colours. It was formed as a mass of irregular shape in the sands and clays during the Tertiary period. In antiquity the amber was used in ornaments. It was exported to China from the Coromandel Coast after collecting from the mines located in Hukaung valley of the Myitkyina district of the present day Myanmar (Wheatley 1959: 81).

Tai-mei (tortoise shell) was an expensive product. China imported tortoise shell from Borneo, Philippines, Java and India (Wheatley 1959: 83). The best qualities of tortoise shells were found on the Somali Coast which was exported to China from India.

Hung ma-nao (carnelian), a semiprecious reddish or reddish-yellow stone is found at a number of places including Arabia, and Bharuch in Gujarat. It is also found in the
regions of Myanmar and Japan (Watt 1893: 173-174). But the majority of Carnelian to China might have been exported from Arabia (Wheatley 1959: 93).

_Hsiang-ya_ (ivory) was one of the significant items of export to China. The demand of ivory was high in China as it was used in making variety of decorative items. It was obtained from the Southeast Asia, Coromandel Coast and as far as Zanzibar during the 12th-13th century CE (Hirth and Rockhill 1911: 232). The Southeast Asia acted both as a native place and as an _entrepôt_ for the ivory. The demand of ivory was prolific in China and majority of this demand was fulfilled by India. It was obtained from the Indian elephant (_Elephas maximus_) which were found the regions near Coromandel Coast (Wheatley 1959: 111).

_Chin_ (gold) was obtained from India, Baghdad and the Zanjibar (Hirth and Rockhill 1911: 111, 126, 135). It was prominently used for the barter of goods in China, and Southeast Asia. The ports of Southeast Asia were the chief entrepôts for the trade in gold (Wheatley 1959: 113).

_T’ung_ (copper) was a product of India as mentioned by Chao Ju-kua (Hirth and Rockhill 1911: 111). It was mainly obtained from the regions of Sikkim, Garhwal, Kulu, and the northern Rajasthan and might have been exported to China during the Song period.

_T’ieh_ (iron) was available in China and it was bartered in the countries of Southeast Asia. But it was noted that it had also been imported from India. The reference of its export is found in the account of Chau Ju-kua as T’ung-tien (Hirth and Rockhill 1911: 111).

_Chि_ and _Chan-t’an_ (rugs) were manufactured in India using the hair of goats or camels. These gold-embroidered rugs were especially popular in Middle East and might have also exported to China. The coarse variety was also available which was manufactured in south India using the sheep hair (Wheatley 1959: 99).
Chola kingdom and China had strong maritime links. A number of envoys were sent to
China from India and vice versa. The commodities exported during the Chola period
from India to China were corals, rose water, mica, indigo, jack fruits, etc. (Sen

During the 14th-15th century CE, the trade activities through the maritime route
proliferate resulting in increase in the export of goods to China. The records of the
voyages of Zheng He give sufficient information about the export of items from India
to China. Zheng He visited some of the major ports in India including Cochin, Quilon,
Bengal, and Calicut. He began his voyage from China in 1405 and sailed till the Malabar
Coast after passing through the different ports in Southeast Asia. The record of his
voyages was written by Fei Xin in 1436 CE. Xin recorded every minute detail of the
voyages of Zheng He in his account along with the items which were exchanged during
the course of the journeys. Xin mentioned that during the first voyage, the items
imported from Quilon were sapanwood and pepper. Zheng He also visited another port
on the Malabar Coast, Kozhikode (Calicut) during his first voyage from where a
variety of goods were collected which were precious stones, pearls, corals, golden
belts, coral beads, double-edged Frank daggers, iron-swords inlaid with jewels, liquid
storax, antimony, ambergris, colourful blankets, bairami cloth, hafta (pavu), colourful
red silk handkerchiefs, handkerchief painted with human, horse an elephant figures,
resting pillows with thread-knit colourful designs, putchuk, frankincense, sandalwood,
tin, and pepper (Ray 1987: 83-84).

During 1407 CE, Zheng He carried out his second voyage to Indian Ocean. He again
reached on the Malabar Coast and collected pepper from the port of Cochin (Ray
1987: 83). During the seventh voyage in 1431 CE, Zheng He visited Bengal from
where goods collected were Muslin, specifically bafta (beibo), white pearls, precious
stones, horses, horse saddles with gold and silver work, opaque vessels with gold
engravings, broad cloth (sakelat), woollens, rhinoceros horns, cranes’ heads,
kingfishers’ feathers, crystal sugar, frankincense, black coarse cotton cloth, cotton,
velvet, parrots, beaks, coarse rhubarb, gharuwood, catechu, ebony, sapanwood, pepper,
and arecanut (Ray 1987: 83).
China to India

A variety of goods were exchanged between India and China. India exported a variety of natural as well as manufactured products and also imported several Chinese products. Initially the Chinese products reached India through the Silk Road. The maritime route for exporting goods was a later innovation when the Silk Road became hazardous and unsafe for trade. Some of the important commodities entering in India from China include silk, ceramics, jade, metals, etc.

During the Song period, China exported metals, porcelains, lacquer wares, silk, copper coins, etc. to India (Chan 2008: 74). Tea was another significant product of China which was exported in Southeast Asia and South Asia. A Chinese traveller, Wang Dayuan in *Dao yi zhi lue* have recorded that Chinese junkes carried goods like gold, iron, blue-and-white porcelain, silk, satins, etc. for trade purposes. He mentioned that China exported silk, cloves, nutmegs and blue-and-white porcelain to *Ta-ko-lam* (Kollam/Quilon); and products like gold, silver, nutmegs, blue-and-white porcelain, etc. to *Peng-pa-la* (Bengal) (Rockhill 1915: 436, 449). He also mentioned about the goods exported to *Wu-tieh* (Orissa) which were gold, silver, coloured satins, white silk, cloves, nutmegs, blue-and-white porcelain, drums, lutes, etc. (Rockhill 1915: 444-445).

The credit for the flourishing trade activities of China in and after 15th century CE goes to a Chinese admiral, Zheng He. He visited several port cities in Southeast Asia, South Asia, Africa and Persian Gulf during his seven expeditions. The prime aim of these voyages was clearly the enhancement of Chinese trade.

The edicts of Zheng He mention three types of commodities which his fleet carried. First type was for tributary purpose, second type of goods with fixed price were for exchange purpose and the third type included those products which could exclusively obtained in China only. The second category included products like gold, silver, copper coins, etc. while the third category consisted musks, silks and ceramics especially porcelain (Ray 1987: 81). Though there is a long list of exported products from China but some significant ones are mentioned here.
**Ta huang** (rhubard) has medicinal values which was a native to the regions of Western China and Tibet. Its cultivation may have begun in 2nd-3rd century CE. It was exported to Palembang (east Sumatra) and Malabar as mentioned in the Chinese text, *Chu-fan-chih* of Chao Ju-kua (Hirth and Rockhill 1911: 61, 88).

**Tz'u** (porcelain) was a unique ware which remained a must-have item in the regions of Southeast Asia, Near East, South Asia, Africa and even Europe. It was manufactured using a different clay named kaolin and fired at a high temperature of more than 1280°C. It changed porcelain into a glossy, smooth and non-porous ware. The manufacturing of porcelain began in 8th-9th century CE. Its import in India however was commenced as 10th century CE which continued till 18th century CE.

The Song period was known as classic age in terms of the manufacturing of porcelain. After this period, during the Yuan, Ming and Ch'ing period, the production of porcelain continued all over China. Different varieties of porcelain were manufactured at the kiln sites in north as well as south China. The most famous kiln site of China was Jingdezhen located at the present day Jianxi province. Majority of porcelain which reached India belongs to Jingdezhen kiln. Porcelain manufactured at Longquan in Chekiang province, Qingbai in Kiangsi province, Ding in Hopei province, etc. were also exported to India. The porcelain has been discovered from 117 sites in India. The archaeological findings of porcelain corroborates with the literary accounts which have mentioned about its export from China. The mention of the export of porcelain has been found in Chu Yu’s *P’ing-chou Ko-t’an* compiled in 1119 CE (Yu 1975: 31). Chu has explained that how small pieces of porcelain were packed tightly in the larger pieces for transportation. China had monopoly over the porcelain trade which continued till the establishments of manufactories in Europe.

**Szu pai** (silk) is one of the chief exports from China. Its export was done through both the routes - Silk Road as well as the Spice Route. The silk was imported in India as early as during the Mauryan period which is mentioned by Kautilya in *Arthasastra* (Kangle 2000: 105). The demand of Chinese silk was tremendous in Southeast Asia especially at Java, Sumatra and Philippines; Middle East; and South Asia. Chinese silk
was made in different varieties. The Ho-ch’ih (present day Huang-hsien of district Shensi) variety of silk was exported to the Malay Peninsula and Malabar Coast.

*Kan-liang Chiang* (dried galingale) is an aromatic herb which has medicinal properties. Its growth is found in an extensive area, from the foot of the eastern Himalayas to the China Sea and even in Malaysia (Wheatley 1959: 50). There are two species of this herb, amongst which the variety, *Officinarum* was largely found in China. The demand of this Chinese herb was extensive in South Asia. During the Chola period, this herb was commonly exported to Sri Vijaya kingdom (Wheatley 1959: 50).

These were some of the significant items imported from China. Zheng He who carried out seven voyages in the Indian Ocean mentioned the names of the products exported to the regions of India. During the first voyage, the products exported to Quilon were cloves, cardamoms, sapanwood, coloured satins, gold, silver, copper, ironware, iron wired, and black tassels (Ray 1987: 83). He also visited Kozhikode (Calicut) during his first voyage and exported gold, silver, coloured satins, blue-and-white porcelain, beads, musks, quicksilver, camphor, silk embroiders, and openwork silk (Ray 1987: 84).

During the second voyage, Zheng He exported coloured satins, white silk, blue-and-white porcelain, gold and silver to Cochin (Mills 1996: 67). In Bengal, exported goods from China included gold, silver, cotton, satin, coloured taffeta, blue-and-white porcelain, copper coins, musk, vermillion, quick silver, grassmats, etc. (Ray 1987: 83).

Amongst all the products from China, the export of Chinese porcelain to India remained splendid since 10th century CE till the 18th-19th century CE. There are numerous archaeological findings of Chinese porcelain in India which corroborates with the literary accounts.
Cultural Interactions

Trade contacts between India and China does not confine to trade only as it opened new channels for cultural exchange as well. Ideas, philosophies, religions, commercial and technological interactions flourished through the traders, merchants, pilgrims, missionaries, soldiers, nomads and urban dwellers of ancient India and China (Hogan 2007).

Buddhism in China reached along with the trade activities. The region of Central Asia came in contact with Buddhism initially and slowly it was transmitted to China. The Chinese accepted the beliefs, ideas and practices of Buddhism though with a little modification which suits them. The popularity of Buddhist attracted every group of Chinese people, rich or poor. Even the aristocrats of the Chinese society started following Buddhism. Many high-class aristocrats attracted towards Buddhism and decided to become monk in order to learn more about its teachings. The Buddhism was a popular religion and the rulers outside China also accepted it.

Buddhism from India arrived in China during the 1st century CE. Its beginning in China is connected with a story of a Chinese emperor according to which, in about 61 CE, the Chinese emperor Ming Ti, having seen a golden figure floating in a halo of light across the pavilion in his dream, was told by his council that it must have been an apparition of Buddha. Hearing this, emperor Ming Ti immediately sent a special mission of inquiry to India in 65 CE. The envoys returned to China accompanying two Indian monks Dharmaraksa and Kashyapa Matanga, who brought Pali books and pictures of Buddhist figures and scenes with them (Bagchi 1950: 6). The Buddhist figures were copied on the palace walls of emperor Ming Ti's and a new temple called Pai Ma Su, the White Horse Temple (fig. 3.25). This temple was built

![China: White Horse Temple](source: http://history.cultural-china.com/chinaWH/upload/upfiles/2010-04/12/white_horse_temple_the_first_buddhist_temple_in_china97b62ef2266b8630c192.jpg)
in the memory of the horse which had carried the sacred relics across Asia (Bushell

After Ming Ti, many other Chinese emperors continued to follow Buddhism and sent
envoys to India to explore more about this religion. Historians said that in this way
Buddhism might have travelled to China from India. The reliability of this story is still
a debate. According to Sen, the story has been discredited many times but instead of
that many scholars use it in order to draw attention of the readers (Sen 2012: 13).

But there is a reliable source in this regard which is again connected with emperor
Ming. According to this record, in about 65 CE, a cousin of emperor Ming named Liu
Ying had observed fasting and performed some rituals of Buddhism at a place called
Pengcheng (present day Shandong) (Zürcher 2007: 26; Sen 2012: 14). This ritual per­
formed by Liu Ying was noted in an edict which was found in the Hou Han shu
(History of the Latter Han Dynasty) written by Fan Ye in 5th century CE. It reads as -

"The king of Chu recites the subtle words of Huanglao, and respectfully
performs the gentle sacrifices to the Buddha. After three months of purification
and fasting, he has made a solemn covenant (or: a vow) with the spirits. What
dislike or suspicion (from Our part) could there be, that he must repent (of his
sins)? Let (the silk which he sent for) redemption be sent back, in order thereby
to contribute to the lavish entertainment of the upasakas (yipusai) and
sramanas (sangmen)" (Zürcher 2007: 27).

It shows that the Buddhist practices already existed during the Han period and the
story of emperor's dream may not be accepted true. However, one thing is true that
Buddhism certainly developed with the trade activities and movement of people on the
Silk Road.

Buddhism was most active in China during the late Sui and early T'ang period. It was
the time when the main centre of Buddhism was shifted from its place of origin, India,
to China. Buddhist monks from India travelled China, carrying Buddhist scriptures,
images and pictures.
In the same manner Chinese monks also visited India. The first Chinese monk was Fa Xian who visited India in search of Vinaya-pitaka in 4th century CE. Other monks like Xuanzang and Yijing followed the footsteps of Fa Xien and reached India during the 7th century CE to gain more knowledge about Buddhism.

Buddhism became a sort of universal religion which linked India and China together. Even it also gained popularity in Sri Lanka, the regions of Southeast Asia, Japan and Korea. Buddhism transmitted from one place to another and automatically showed a cultural amalgamation. Every country tried to mould their ideas with Buddhism which affected greatly their day-to-day life. The mixture of ideas reflected in art forms like structures, sculptures, etc.

Chinese artisans sculpted Buddhist deities in bronze and stone. Buddhist temples and monasteries were built on far-flung mountains or remote areas. The art and architecture of Buddhism pleased every society of China. There are several examples of Buddhist structures in Central Asia and China. The site of Bamiyan, Niya, Kashgar, Balkh, Kuqa, Turfan, Dunhuang, etc. clearly shows Buddhist influence on art.

In addition to sculptures and temples, Chinese artisans painted a significant number of emblems, symbols and images of Buddhist deities on their most valuable export item, Chinese porcelain. It was decorated with the symbols of Buddhism and their deities. These symbols were found on porcelain up till Yuan period.

The most important change which occurred in Chinese society after the development of Buddhism was equality amongst all the classes. The inscriptions on Buddhist temples and sculptures prove that all the classes of Chinese and non-Chinese people worked together in a number of projects (Ebrey 1996: 99). Large donations and contributions were made by people of every cast and creed to build Buddhist structures in China. But other religions of China, Taoism and Confucianism slowly started overpowering the teachings of Buddhism in China. Although Buddhism in entirety could not be vanish from China.
India had also sent music to China which became popular in the T’ang capital, and information on astronomy (Basham 1994: 455-460). Some scientists from India also visited China. One of the most famous Indian scientists, Gautama Siddhartha visited China and resided there during the 8th century CE. The visits of astronomical scientists helped in developing the science of astronomy in China during the T’ang period (Schaefer 1985: 275; Dale 2008: 85). The Indian astronomers introduced Brahmanical tradition of calendar making in China during the T’ang period (Sen 2012: 24). Chinese emperors also employed Brahmans to translate texts along with the Buddhist monks from Sanskrit.

The medicinal knowledge of Indian herbs was also transmitted because of the cultural interactions between India and China. The records of Song period have mentioned that in the 11th century CE, the Buddhist monk from India brought Indian medicines and aromatics (Dale 2008: 87). They also brought priceless information on the medicinal herbs in the form of texts. It was the Indian monks who taught the art of natural healing to Chinese.

This chapter has highlighted the trade routes between India and China. It included details on both the land route and the maritime route. The land route between India and China began as early as 2nd century BCE but it started developing during the 1st century CE. This road was tough and full of dangers from the bandits but even then trade prospered on all the regions coming on the way from China to Rome including India. The internal routes from India were connected with Silk Road. Through this road a variety of goods including Chinese porcelain arrived in India. Other than the Silk Road, the route beginning from Yunnan in China passing through Myanmar and reaching northeast India was also used for trade purposes. The findings of porcelain on several sites in Myanmar and celadon ware in Ambari attests that the route was significant.

The land route started declining when the use of maritime route started developing by the merchants and travellers of several countries. There are a number of literary accounts of Chinese travellers and merchants that have mentioned about the prolific
use of maritime route between India and China. The account of Zheng He is important in this aspect as it give details of his seven voyages in Indian Ocean. His account mentioned all the countries which he had visited along with the goods exchanged. He specifically mentioned the exchange of blue-and-white porcelain at the present day Kozhikode, Cochin and this aspect as it give details of his seven voyages in Indian Ocean. His account mentioned all the countries which he had visited along with the goods exchanged. He specifically mentioned the exchange of blue-and-white porcelain at the present day Kozhikode and Cochin.

The shipwrecks found in the Indian Ocean has provided significant information on the maritime route between India and China. A large number of shipwrecks of South Asian, Arab/Indian and Chinese origin have been located in the Indian Ocean. Some of the important shipwrecks of different periods have been included in the chapter. It includes significant details on the shipwrecks such as its origin, type of ship, material remains, and ceramic assemblage. These shipwrecks have been arranged according to their periods which gives a clear chronological detail of the use of maritime route. Some of these shipwrecks like Wan-li and Xuande are noteworthy because they were carrying some pieces of porcelain which were never found before. The amount of porcelain found on these wrecks is huge. Both intact and semi-intact pieces were found of large dishes, jars and bowls.

These information on trade routes and exchange of goods have helped in finding out how the trade activities prospered between India and China and when they started declining. The material remains corroborating with the literature have provided ample of information in this regard. The finding of porcelain and other Chinese goods in India have confirmed that the maritime trade between India and China was high during the Ming period.

The trade interactions also influenced the cultural contacts. In the light of trade, Buddhist reached in China from India after influencing the regions of Central Asia. China adopted it with elan as a result a number of monks from China visited India and vice versa. With the Buddhist, the science of astronomy and music also reached China from India.