CONCLUSION

The present work on Chinese porcelain includes a number of aspects. It has highlighted the relations between ancient India and China in the background of porcelain trade. The import of porcelain in India began in around 10th century CE but it proliferate after the maritime activities expanded especially during the 15th-16th century CE. The extensive porcelain finds in India is a point of discussion as it shows that maximum number of this pottery has been discovered from the coastal regions. The reason is simple that maritime route was more preferable for the trading goods from India to China and vice versa. Though the land route was also remain in use but comparatively less.

The study of literature on porcelain and trade activities corroborate with the finds of porcelain in India. Therefore, this work began with the literary references on India and China, their history, trade interactions, goods exchanged, etc.

The reference of a number of Arab, Chinese and European literary texts have mentioned about the ancient contacts between India and China. There is no confirm date or period about the beginning of contacts between India and China but it may have developed as early as in 1st century CE. Prior to this, the reference of word Cina for China has also been noticed in a number of texts amongst which one of the noteworthy mentions was found in the Kaytilya’s Arthasastra. The text gives the reference of silk cloth coming from China though there are no historical and archaeological evidence of any trade connection between Mauryans and Chinese. The probable routes used for importing the Silk from China during this period were passed either through Myanmar or directly through Bactria going to Multan and then reaching India. These two routes remained in use for a long time. The contacts between India and China started developing in about 7th century CE.
The historical accounts suggest that there were regular visits of Indian envoys to China and vice versa which began to develop in 7th-8th century CE. The king Harsavardhana of Vardhana dynasty had healthy contacts with the contemporary Chinese dynasty of T’ang. But it was the Chola period when the activities between India and China grew as the maritime trade route advanced. The Chola king Rajaraja I sent embassies to China carrying tributes. This was the period when Song Empire of China, Fatamids of Egypt and Chola kingdom were trading with each other. The literary texts indicates that the trade and cultural contacts between India and China remained prosper for a long period.

Besides the literature on India and China contacts, the mention of Chinese porcelain, its import and use in India have been noticed in the literary texts. Amongst these, some significant ones are Cha jing (Tea Classic) (9th century CE), Akhbar al-Sin wa’l Hind (An Account of China and India) (9th century CE), Al-Jumahir fi Ma’rifat al-Jawahir (Book on Precious Stones) (11th century CE), Oriente Poliano (Description of the World) (13th century CE), T’ao-ch’i Lueh (Appendix to the Ceramic Records) (14th century CE), Travels of Ibn Battuta (14th century CE), Babur-nama (Memoirs of Babur) (16th century CE), etc.

The paintings of Mughal period have also depicted porcelain as one of the main subjects. Porcelain has been often found being used by the kings and royals in the illustrations of Babur-nama and Tuzuk-i-jahangiri. The porcelain was a valuable item and was also assumed as a ware which could detect poison in the food. This belief made it more popular.

All these literary references clearly indicate the importance and high value of porcelain. Adding to it, the remains of Chinese porcelain in India along with other finds like Chinese coins, structures, inscriptions, etc. also corroborates with the literature. The archaeological remains of Indian contexts such as bilingual inscriptions, sculptures and
temples have also been discovered in China. All these significant details highlight strong mutual interactions between India and China.

There are a very few previous works on the findings of Chinese porcelain in India. Some of these initial works have carried out by A.F. Bellasis and C.M. Richardson at Brahminabad, Sindh in 1854, R.E.M. Wheeler at Arikamedu, Puducherry in 1945, B.K. Thapar at Purana Qila, Delhi in 1972 and Ellen Smart at Firozshah Kotla complex, Delhi in 1976. Besides these, John Carswell in 1978 did a survey on the coast of India in search of Chinese porcelain. Noboru Karashima in 1980 carried out a survey particularly on the east coast of India. These initial works show the extent of porcelain in India. The remains suggest that it has been found both in inland as well as on the coast or port sites. Such a large number of porcelain finds in India corroborating with literary texts proves its demand and popularity.

The work has also emphasised on the technical and scientific study of Chinese porcelain. It has discussed the types of porcelain and its manufacturing technique which is a long and tedious process. Manufacturing of porcelain takes great time and effort. For obtaining excellent results, the ancient Chinese potters have experimented in different ways. The kiln temperatures and conditions gave different textures and colours to porcelain. Both the oxidised and non-oxidised conditions in the kilns were used for making porcelain. The technical aspect like the temperature for firing porcelain is still an issue of debate. There are different criteria set by different experts. Some claims that porcelain can be prepared at above 1000°C while other has increased this parameter to 1300°C. However, porcelain can be manufactured at a temperature of 1280°C.

Also, porcelain is a fine ceramic but it is not always necessary that it may look white every time as its raw material may contain certain impurities. Both the clay as well as stone used for its manufacturing may include iron oxide that might cause a change in
colour of raw porcelain to brown, grey or yellow and in later stages of post-firing it develops a greyish tint. Therefore, sometimes high-fired porcelain may also look pale or yellow.

There is another debate regarding the origin of blue-and-white porcelain in China. Findings of blue-and-white porcelain from the level of T’ang period have indicated that this variety might have originated as early as in 9th-10th century CE. But it is strange that after the T’ang period, the blue-and-white porcelain was found in the developed form during the late Yuan period (14th century CE).

The blue-and-white porcelain of T’ang period was found in north China. On the other hand this variety of Yuan period developed in the kilns of south China. The blue-and-white ware of T’ang period was also found on a shipwreck datable to 9th century CE. A number of analyses have been done on these finds. According to some Chinese experts, the results obtained may shows that the T’ang blue-and-white porcelain was not as refined as the Yuan’s period blue-and-white porcelain but it is high-fired. Some of the experts have also quoted it as ‘high-fired stoneware’. Therefore, it is yet to ascertain the true nature of T’ang blue-and-white porcelain. Further excavations in China may help in answering that why blue-and-white porcelain did not continue to be manufactured during the Song dynasty and how it suddenly emerged as an extremely refined ware during the Yuan period.

Besides the technical details on porcelain, this work also comprises the land route and maritime route trade. There are ample of porcelain finds noticed on throughout the Silk Road and the Spice 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 attest 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.

Another important aspect in this research is the study of maritime routes between India and China. For this, the details on the shipwrecks found in the Indian Ocean were examined. The finding of these shipwrecks suggests that bulks of porcelain were imported to several countries, including India. It was found that the maritime route between India and China began to develop during the Song period (960-1279 CE) but its use extended during the Ming period. The shipwrecks of Song, Yuan and Ming periods are found in the waters of Malaysia, Indonesia and Java which shows a complete chronology of trade activities between India and China.
The ships found in the Indian Ocean are noteworthy as most of them were either coming from India or on its way to India. The significant details on the some of the noteworthy shipwrecks have been included. The details like their origin, type of ship, material remains, and ceramic assemblage have been discussed. Details of fifteen significant shipwrecks have been included in the work. The details have been arranged according to their period in order to find out a clear chronological detail of the use of maritime route. Amongst these shipwrecks, two are especially noteworthy - *Wanli* and *Xuande* as they were carrying some pieces of porcelain which were never found before. The amount of porcelain found on these wrecks is also huge. Both intact and semi-intact pieces of large dishes, jars and bowls were found.

The information on trade routes and exchange of goods has 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.

Another aspect included in this study of porcelain is the mode by which porcelain was transported. Both the land and the maritime routes were used for the transportation of porcelain. The point of discussion is how the porcelain might have transported through the terrain of Central Asia. The route 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 merchants have transported it through this long route.

The answer though has given by a Chinese expert who has mentioned that porcelain was packed carefully 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.

The discussion also includes porcelain finds in India in context of the other material remains found during the excavation. The significant details like location, other finds from the site including structural remains, antiquities and ceramic assemblage are important in order to know the nature of site. The details of sites are included in this work to understand the use of Chinese porcelain in association with other finds. The reports of many of these sites are not available which could have provided more details like the context, variety of porcelain and its period. Such significant information could help in providing the exact chronology of the site along with the period in which porcelain was used.

Besides the general varieties of porcelain, the work comprises a detailed study on the sites yielding Chinese porcelain in India. Different varieties of porcelain have been discovered from several regions of India. There are about 117 reported sites in India where porcelain of different time periods has been noticed. Such a large number of
archaeological sites indicate that the demand of porcelain was high in India. Most of these sites are located in the coastal regions and medieval capital cities of India.

These findings of Chinese porcelain in India have showed a chronological sequence regarding the import of porcelain. The data from the excavations have helped in examining the exact period of the use of Chinese porcelain. The remains specified increase of porcelain trade in India during the Ming period. Prior to this, the remains of the porcelain of Song and Yuan period are comparatively lesser.

Besides the reported site, some new unreported sites in India have also been identified. It includes Bandar fort in Machilipattinam (Andhra Pradesh), Sion fort in Mumbai (Maharashtra) and Prabhas Patan in Somnath (Gujarat). These sites yielded Chinese celadon and blue-and-white porcelain of Ming period.

The number of these archaeological sites yielding Chinese porcelain could be more as there are still many unreported sites. The sites in India mentioned in the literary texts are yet to be explored. Some of the sites are still unidentified. Further research of these unexplored sites may yield more findings of porcelain. Besides the unreported sites, there is also an issue with the reported porcelain finds in India. In most cases these finds had not been identified or studied. The varieties of Chinese porcelain have often been wrongly identified as glazed Mughal pottery. Therefore, the thorough documentation of porcelain finds was carried out during this research. A database was prepared which would help in finding out the varieties of porcelain and their periods.

Chinese manufactured different varieties of Chinese porcelain for export purposes. Amongst these, five varieties of Chinese porcelain have been discovered in India which includes white porcelain, celadon ware, blue-and-white porcelain, blue-and-red
porcelain and over-glaze enamel ware. These varieties are datable to different periods and reigns starting from 10th century going up to mid 17th century CE.

The comparison of the porcelain found in India has been done with the collections of porcelain around the world. Most of these porcelain varieties have been identified accordingly with their kiln sites. The study of designs and inscriptions on the porcelain found in India showed variations in motifs of different periods. On this basis also, the types, varieties and periods of porcelain in India has been identified.

Different decorative motifs of Chinese and non-Chinese origins were made on Chinese porcelain according to the demand of buyers. It shows that Chinese were open to accept the influences from other the Near East, Central Asia and India. Their aim was to fulfil the demand of overseas. The ornamentation on porcelain was so perfect that it became an essential item in the royal courts.

It is equally interesting that Indian art influenced Chinese art. Certain Indian motifs are also painted on Chinese porcelain. In India, several porcelain pieces are found painted with motifs like swastika, lotus and other Buddhist symbols. Other than these, symbols from Near East along with typical Chinese motifs were also painted on Chinese porcelain. The comparison of different motifs found on the Chinese porcelain in India has been done. Several motifs painted on porcelain showed certain variations and modifications which changed with every period. These changes help in motifs help in dating porcelains. Particular variety, style and type of porcelains were developed in particular periods which also help in providing a time frame.

The study of inscriptions on porcelain helps in finding out the dates and periods of porcelain. But there is also a debate on the inscriptions found on porcelain. The copying of Chinese dynastic inscriptions was prevalent during the Ming period. The Chinese
porcelain made during the reign of some Ming emperors had gained popularity. In order to earn more profit, the Chinese potters copied dynastic marks of earlier emperors on the porcelain of late Ming period. This way, dating a porcelain piece cannot be done on the basis of the inscription found on it. The designs and material are also considered before giving a date to porcelain pieces.

It was an achievement that the Chinese potters maintained the manufacturing of porcelain for more than 1000 years. The periods changed and both Chinese as well as foreign dynasties in different time spans ruled over China but the manufacturing of porcelain remained constant. The export of porcelain though halted a few times but the manufacturing of porcelain continued.